

**GUIDANCE APPENDICES TO THE MAJOR  
PROJECTS ASSESSMENT STANDARD**

**FIRST NATIONS  
MAJOR PROJECTS  
COALITION**



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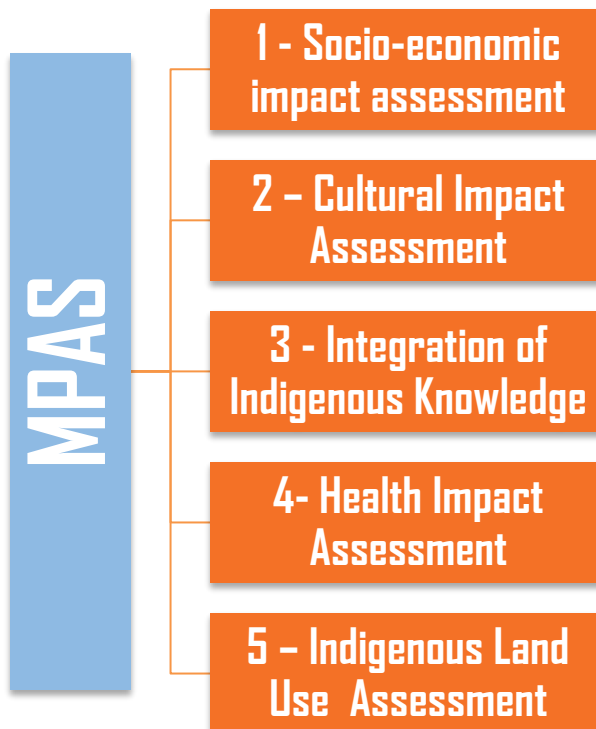
## TOPIC-SPECIFIC ASSESSMENT REQUIREMENTS - GUIDANCE APPENDICES TO THE MPAS

The First Nations Major Projects Coalition (the Coalition) has developed the attached supplementary Topic-Specific Assessment Requirements (or Guidance Appendices) to improve the assessment of potential project impacts on Indigenous Nations situated within Canada. These Guidance Appendices are in support of the Coalition’s Major Project Assessment Standard (MPAS).

The Appendices are intended for use as a suite of expected impact assessment practices that Coalition members and other Indigenous groups, on their own or in concert with other Parties like governments and Proponents, can choose to adopt as part of their own “checklist” of essential major project assessment practices.

The requirements identified in each of the Appendices are drawn from a deep analysis of existing good to best practice guidance, academic writings, the experiences of Coalition members and the expertise of the Coalitions’ Environmental Stewardship Technical Team. They have been vetted by the Coalition’s Environmental Stewardship Advisory Committee, and have been adopted by the Caucus as expected practices, as of October 21, 2019.

There are five current topic-specific Guidance Appendices to the Major Project Assessment Standard. More may be added by the Coalition at a later date by order of the Caucus; they may also be revised by the Coalition over time. They are:



The Guidance Appendices can be especially useful in determining the adequacy of planned, in-progress, and completed topic-specific studies, reports and assessment findings.

Their primary purpose is to enable Coalition members to share their expectations for major project assessment requirements on specific assessment topics, with each other, other Indigenous Nations, industry proponents, governments, and environmental assessment practitioners.

The Guidance Appendices can also importantly be used as a checklist for any individual major project assessment, to ensure that a Nation's requirements are being met. This will improve the chances that enough information is provided to allow Nations to make informed decisions during a major project assessment.

Where there is confusion about the applicability or meaning of any clauses within the Guidance Appendices, it is strongly advised that Parties (e.g., Proponents or Crown agencies) seek clarification in the following order:

1. If a Party wants more information on how to interpret a clause or Guidance Appendix, they should contact the affected First Nation(s)/Indigenous group(s)<sup>1</sup> first. **The guidance topics herein are subject to revision by any individual Nation, whose requirements supersede those identified herein.**
2. If there remains a need for more explanation, the Party and/or the First Nation(s)/Indigenous group(s) can contact the Coalition's Environmental Stewardship Technical Team.

Many of the topics addressed in the Guidance Appendices have overlaps with one another and connect with specific Principles and criteria in the Major Project Assessment Standard. For example, Principle 5 in the MPAS covers a wide spectrum of topics related to the human environment enjoyed by Indigenous peoples and how this can be assessed; this same topic is a main theme of each of the five Guidance Appendices. Topics of common overlap between the MPAS and the topic-specific guidelines include:

- Adequate funding must be provided to Indigenous groups to meaningfully engage;
- Right of first refusal for affected Indigenous groups to conduct studies;
- *Disaggregated assessment*<sup>2</sup> – nation-specific;
- Consideration of – and expected practices in - cumulative effects assessment; and

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<sup>1</sup> For the sake of consistency, the term Indigenous group, when used in these Guidance Appendices, refers to First Nations, Métis and Inuit groups.

<sup>2</sup> ***Bolded and italicized text*** in the Guidance Appendices highlights terms that are included in the Glossary at the end of the appendices.

- Respect for community protocols and engagement methods.

**Even where specific requirements are not included in the topic-specific Guidance Appendices below, each of the above principles is applicable to each topic.**

Table A1 on the next page shows some of the connections between clauses in the Major Project Assessment Standard and the Guidance Appendices.

Table A1 is not a comprehensive list. Parties are advised to apprise themselves of all relevant principles and clauses in the Major Project Assessment Standard and to engage directly with the affected Indigenous group(s) in order to plan for and conduct effective impact assessments.

The requirements identified in each of the topic-specific Guidance Appendices are not meant to be comprehensive; they are not to be used as a methodological guide to the completion of an individual study. Instead, they identify major hurdles and gaps that have been encountered by Indigenous groups in previous topic-specific studies and assessments, and a path forward to avoid these problems in the future.

It is recognized by the Coalition that the scope and depth of effort for each type of study and topic-specific assessment will vary according to the size and nature of the proposed Project and the context in which it is proposed.

It is critical that Proponents and the Crown engage Indigenous groups in this process of Project-specific tailoring and that the affected Indigenous groups agree with the final scope and level of effort.

**Table A1 – Connections Between the Major Project Assessment Standard and Guidance Appendices**

Topic of Overlap	Related Appendices and Requirements	Related MPAS Principle/Criteria
Adequate Funding	Appendix 1, Requirement 1(g) Appendix 3, Requirement 1 Appendix 4, Requirement 2 Appendix 5, Requirement 1(a)	<i>Principle 3, especially Criterion 3.6</i>  <i>Principle 6, especially Criteria 6.1 to 6.3</i>
Right of First Refusal for Affected Indigenous Nations to Conduct Studies	Appendix 1, Requirement 1(a) Appendix 2, Requirement 2(b) Appendix 3, Requirement 3 Appendix 4, Requirement 1 Appendix 5, Requirement 1	<i>Principle 2</i>  <i>Principle 5, especially Criterion 5.3</i>
Disaggregated Assessment – Nation-Specific	Appendix 1, Requirement 2 Appendix 2, Requirement 6 Appendix 3, Requirement 11 Appendix 4, Requirement 6 Appendix 5, Requirement 1	<i>Principle 5, especially Criterion 5.8</i>
Commitment to Best Practice Cumulative Effects Assessment	Appendix 1, Requirement 4 Appendix 2, Requirement 6(c) Appendix 4, Requirement 8 Appendix 5, Requirement 10	<i>Principle 8, all 12 Criteria are relevant</i>
Respect for community protocols and engagement methods	Appendix 1, Requirement 5(a) Appendix 2, Requirement 3 Appendix 3, Requirement 6	<i>Principle 2, especially Criterion 2.3</i>

## APPENDIX 1: INDIGENOUS SOCIO-ECONOMIC IMPACT ASSESSMENT (SEIA)

This document sets out requirements for expected practices of socio-economic impact assessment (SEIA) in relation to Indigenous peoples during major project assessment. Requirements underlying effective SEIA that must be considered during a major project assessment include:

1. The SEIA will not be led by a party other than the Nation(s); it must be conducted either collaboratively or be community-led by the Nation(s).
2. Indigenous demographic and other baseline data will be properly disaggregated from the overall local and/or regional population, and must adequately represent individual Indigenous populations.
3. The SEIA will be tied to Indigenous community/group goals, values and aspirations – in other words, incorporate Indigenous group appropriate Valued Components, criteria, and indicators, as well as their priorities, issues and concerns.
4. Direct, indirect, induced and cumulative socio-economic impacts will be considered in the assessment.
5. The SEIA will identify and be conducted in accordance with Indigenous laws, norms and values.
6. The SEIA will be inclusive of, and consider differential effects on, a broad cross - section of the Indigenous community/culture group.
7. The SEIA will include examination of impacts of the proposed development on Indigenous subsistence and mixed economies.
8. The SEIA will include an appropriate social component.
9. The SEIA will incorporate a broader concept of what constitutes population health than merely biophysical inputs.
10. The SEIA must adequately attribute responsibility for mitigating socio-economic effects to appropriate parties, including Proponents and government agencies.
11. The assessment of economic benefits will include realistic, rigorous and defensible assessment of impact equity and the ability of Indigenous groups to take advantage of business and employment benefits.

12. The assessment of Indigenous employment will be broad enough to capture recruitment, retention and advancement issues, and incorporate relevant case studies from existing similar operations and/or communities. [SEP]
13. Monitoring and adaptive management mechanisms agreeable to and involving affected Indigenous groups will be included in the final commitments and conditions.

Further information on each requirement is provided below.

## Requirements Underlying Effective Socio-Economic Impact Assessment

### 1. The SEIA will not be led by a party other than the Nation(s); it must be conducted either collaboratively or be community-led by the Nation(s).

“Outside-in” SEIA’s where Indigenous communities are treated as a research subject by groups from outside that may have little understanding of the social, economic or cultural context are not acceptable. [SEP]

- a. The SEIA methodology will be collaboratively developed with the Indigenous group.
- b. Indigenous groups should be provided the right of first refusal to conduct Project-specific socio-economic impact assessments on their community.
- c. If community capacity to do this work is lacking and cannot be generated in a timely fashion, the Indigenous group may nominate one or more external parties they are comfortable working with.
- d. Indigenous communities should be encouraged and supported to actively participate in any socio-economic assessment study, and to build capacity in socio-economic data collection and reporting. This requires training and employment of community members as part of the SEIA team, which may assist in developing key skills and replicable systems for future assessments.
- e. Even where the community does not take on a leading role in the socio-economic study, Proponents will make every effort to engage affected Indigenous group representatives in all six steps of SEIA. This includes a meaningful level of involvement in 1) Scoping; 2) Baseline data collection and analysis; 3) Initial impact characterization including *pathway analysis*; 4) Identification of appropriate mitigation; 5) Significance



estimation; and 6) Design and implementation of follow-up and monitoring programs.

- f. A draft version of the SEIA findings should be vetted by the community according to its protocols, prior to submission to an assessment body.
  - i. Communities have the right of advance review of all materials concerning them, and can ask for specific materials deemed to be inaccurate, to be taken out of any submission.
- g. Adequate funding will be provided to cover all costs of Indigenous involvement in SEIA.

**2. Indigenous demographic and other baseline data will be properly disaggregated from the overall local and/or regional population, and must adequately represent individual Indigenous populations.**

*Secondary data* available from government sources or created for other projects, may have limited utility due to both the limited participation by community members (on and off reserve) and a set of indicators defined from outside the Indigenous community. Significant differences between the socio-economic conditions and ability to take advantage of potential economic benefits of Indigenous vs. non-Indigenous populations can also be masked by regional level or aggregated community level assessments.

- a. Indigenous group by Indigenous group data will be disaggregated, not pooled. Custom data pulls will be done to ensure that information for the Indigenous population, and persons who identify as Indigenous peoples, can be presented separately from the non-Indigenous population at the local and regional level.
- b. An early priority is to determine if there is sufficient available socio-economic data to provide a meaningful baseline for the Indigenous group. Where the Indigenous group determines that current data is not representative of the community or is missing important indicators, adequate budget will be provided for collection of primary data, which may include but would not be limited to a community specific survey that will gather baseline information, and community perceptions of risk/benefits from the project.

**3. The SEIA will be tied to Indigenous community/group goals, values and aspirations – in other words, incorporate Indigenous group appropriate**

## **Valued Components, criteria, and indicators, as well as their priorities, issues and concerns.**

Indicators developed by government agencies and Proponents have often been on topics that are easiest to count (jobs, income, taxes), but these actually may leave major gaps in “what matters most” to Indigenous communities, where there are a different set of laws and expectations as to what it means to live a good life. Essential elements that determine quality of life for Indigenous peoples – which may include but will not be limited to their ability to pass knowledge on, ability to get adequate traditional materials and food in a fulfilling way without fear of contamination or need to travel beyond traditional areas, or concern about the need to reduce harvesting due to increasing pressure, sense of community, connection to land, sense of control over your life, family relations) - need to be identified and explored.

- a. When scoping a SEIA with an Indigenous community, it is essential to collect primary data, using community meetings, focus groups, interviews, and gray literature to help capture “what matters most” to the specific culture group. [1]  
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- b. Community verification of the appropriateness of candidate socio-economic Valued Components and indicators is critical prior to initiating baseline data collection. Potential domains include but are not limited to:
  - i. basic household demographics,
  - ii. sharing relationships,
  - iii. education and training,
  - iv. employment and income,
  - v. job readiness,
  - vi. housing,
  - vii. nutrition and food security (measuring both market food affordability and adequacy and accessibility of the *Indigenous food system* to meet dietary and cultural requirements),
  - viii. adequacy of community services,
  - ix. participation in community functions and cultural practices,

- x. ecosystem security,
- xi. health status (see also Appendix 4 – Health Impact Assessment),  
and
- xii. community *resilience*.

**4. Direct, indirect, induced and cumulative socio-economic impacts will be considered in the assessment.**

- a. A cumulative effects context assessment that looks at the “weight of recent history” since contact, or another Indigenous group agreed upon past point in time, from all sources (not only industrial development), must be completed prior to the assessment of project-specific impacts, as the *vulnerability* of the indigenous group to further change - and its concomitant ability to take advantage of economic benefit opportunities – is directly linked to this cumulative effects context.
- b. SEIA should include estimates of the breadth and cost of socio-economic impacts (beneficial and adverse; good and bad) on the local Indigenous group(s) from both cumulative impacts and project-related impacts (both short and long term) including for example but certainly not limited to:
  - i. population growth (transient and local population effects),
  - ii. subsequent changes and pressure on infrastructure,
  - iii. quality of life (ex. cost of living, ability to enjoy the land and water, ability to take advantage of local programs), and
  - iv. potential for changes and pressure on an Indigenous group’s territory from others recreationalists/harvesters entering that territory.
- c. Valuation of loss (social, ecological, economic, cultural, nutrition, health) from both the project’s local study area (for example, pressure on affordable housing, education, social and health services, food costs) and nearby areas in the Indigenous group’s territory that may see increased pressures, needs to be considered (reduction in security of traditional food, reduced connection to the *cultural landscape*, impacts on sacred places).<sup>3</sup>

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<sup>3</sup> See also Appendix 2, Cultural Impact Assessment.

- d. Beneficial and adverse *induced effects* of economic development related to the Project need to be considered, including but not limited to additional spending due to increased income, associated inflationary pressures, and the effects of the Project in terms of inducing additional economic activities as a result of it being put in place (examples include effects of a new road on exploration activities, or increased pipeline capacity on upstream gas exploration and development activities).

**5. The SEIA will identify and be conducted in accordance with Indigenous laws, norms and values.**

- a. Methods of data collection, analysis, and decision-making (e.g., on significance) must be conducted respectfully within the protocols of – and according to an appropriate pace for – the particular Indigenous group. In particular, Indigenous groups often have capacity limitations that may require them to have additional time allotted for their involvement.
- b. The impact assessment should include questions like, “Will the development impact on peoples’ ability to adhere to Indigenous laws, norms, and values (e.g., sharing, respect for elders)?”

**6. The SEIA will be inclusive of, and consider differential effects on, a broad cross-section of the Indigenous community/culture group.**

One reason to proactively gather a broad cross section of information is that often those most vulnerable to adverse impacts of a proposed development and least likely to take advantage – this can include elders, women and youth– have been among the people least likely to be approached by SEIA practitioners in the past.

- a. The SEIA will consider vulnerabilities and the distribution of impacts and benefits between Indigenous and non-Indigenous communities and within Indigenous communities.
- b. It is a priority during scoping to identify any especially vulnerable sub-populations at the community level, and focus data collection and analysis on them proportionately.
- c. This is a particularly high priority in cases where there are likely to be high in-migration and/or increased incomes in the community or disruptions to accessing usual areas from a project, where special emphasis should be placed on identifying and mitigating any adverse social and economic effects on people at the economic margins

(unemployed, single parents, elders, women, children, among others), and to promote their well-being, must be included.

- d. An appropriate consideration of impacts on women and youth's well-being status must be included. Example topics include:
  - i. personal security,
  - ii. equity of job opportunities and pay,
  - iii. educational opportunities,
  - iv. health and other social service delivery changes,
  - v. pressure on housing suitability/affordability,
  - vi. road safety concerns,
  - vii. gender-based violence, and
  - viii. substance abuse.<sup>4</sup>

**7. The SEIA will include examination of impacts of the proposed development on Indigenous subsistence and *mixed economies*.**

Often discussed solely as cultural activities, these Constitutionally-protected rights are central to the past, present and desired future mode of life of Indigenous people, and have social and economic implications for health and quality of life in addition to cultural implications. <sup>[L]</sup><sub>SEP</sub>

- a. Proponents will adhere to local protocols and expectations for Indigenous land use assessments identified under SEIA Implementation Requirement 5(a). See also Appendix 5: Indigenous Land Use Assessment for more information on expectations for assessment of effects on Indigenous land use.
- b. Continuing reliance on Indigenous food systems and their careful management are a core aspect of meeting both food security (when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life) and nutrition requirements for

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<sup>4</sup> Development scenarios that include extensive direct, indirect and induced in-migration, especially to smaller communities, will require close examination of social and economic risks and benefits created by these population shifts. Large temporary work camps, as well, merit special attention.

Indigenous peoples. All SEIA undertaken needs to include a component addressing safety, adequacy, accessibility, current use and barriers to use of traditional food, water safety/security.<sup>5</sup> Additionally, the SEIA should include a component that assesses potential effects on income-related food security.

#### **8. The SEIA will include an appropriate social component.**

Much of what has passed for socio-economic impact assessment in previous environmental assessments was primarily economic impact assessment with little or no meaningful social component. For example, social relations, family, community and *intergenerational relations*, while sometimes difficult to quantify, often play a role equal in importance than access to housing or recreational facilities, which are among the more commonly assessed social criteria. [SEP]

- a. Indigenous groups' community service providers and staff in the social and economic sphere are often key contacts to understand issues at the community level; they should be part of the data collection and analysis program wherever possible.
- b. SEIA should include assessment of potential psycho-social effects of the proposed development, in the community and on the land.<sup>6</sup>
- c. SEIA should identify Indigenous community "vulnerability" and "resilience" elements, and focus on promoting resilience while not increasing negative effects on social issues that make the community and its members vulnerable to future change.

#### **9. The SEIA will incorporate a broader concept of what constitutes population health than merely biophysical inputs.**

- a. Health Canada's Determinants of Health Model is a useful starting point. This population health framework recognizes that factors such as ability to practice one's culture, socio-economic status, *community cohesion*, and

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<sup>5</sup> Indigenous groups often have very different laws, norms and expectations for water management and protection. These should be considered in the assessment. For example, technical water use permits often consider only the quantity of water needed and the quality/safety of water for humans. Indigenous water management expectations may focus more on the understanding that water has life and allows life to continue, and may insist that the water be used sparingly and that the quality be kept at a standard that it supports optimum ecosystem maintenance/regeneration.

<sup>6</sup> Taylor et. al., (1991, 441) defines psycho-social effects as, "the complex of dysfunction, distress and disability which are manifested in a wide range of psychological and social outcomes in individuals and groups", which "may occur in conjunction with or independent of measurable physical effects.

other factors all play extremely important roles in individual, family and community mental and physical health.

- b. See Appendix 4: Effective Indigenous Health Impact Assessment for more information on health impact assessment relevant to Indigenous peoples.

**10. The SEIA must adequately attribute responsibility for mitigating socio-economic effects to appropriate parties, including Proponents and government agencies.**

- a. SEIA will not lean on the “personal choice” explanation model that puts the bulk or responsibility for adapting to change on the shoulders of the Indigenous community and its members and on governments. This does not mean that Proponents are responsible for addressing all impacts on Indigenous communities, but that any project that proceeds will show contributions to *net gains*, *reconciliation* and avoidance of increased social impacts on already vulnerable indigenous communities, as defined by those communities themselves.
- b. The Proponent should adopt a proactive – “what can we do to promote good change and avoid bad changes” – rather than reactive – “that is a government responsibility” – stance to mitigation. This is part of the overall expectation that Proponents will provide compelling evidence of “net gains” as a result of the Project.
- c. The Crown is expected during the application review phase of the major project assessment to proactively identify any mitigation, compensation, and monitoring measures it will require or implement itself. This will support informed significance estimations and decision-making.

**11. The assessment of economic benefits will include realistic, rigorous and defensible assessment of impact equity and the ability of Indigenous groups to take advantage of business and employment benefits.**

*Impact equity* considerations (at essence, who wins and who loses if a proposed development proceeds) should be a fundamental element of impact assessment and of development planning. Too often in the past, Indigenous groups have borne the brunt of negative impacts without commensurate benefits.

- a. Indigenous community SEIA should use a “Net Gains” approach to examine whether there is an appropriate balance over all appropriate time scales (including into the far future and in light of any futures that may

need to be foregone if a given project proceeds now) between benefits accruable and adverse impacts sustained. [1] [SEP]

- b. A detailed understanding of barriers to Indigenous workers and businesses taking advantage of all Project-related employment and business procurement related to the proposed project is critical.

**12. The assessment of indigenous employment will be broad enough to capture recruitment, retention and advancement issues, and incorporate relevant case studies from existing similar operations and/or communities.**

Recruitment assessment examines barriers to getting a job; retention assessment examines retention/attrition rates for indigenous workers and factors behind this; advancement assessment examines continual growth in employment status and career path development for indigenous workers and factors influencing this. [1] [SEP]

- a. The Proponent will be expected to provide adequate evidence to support an understanding of Indigenous recruitment, retention and advancement issues that may occur in relation to the Project, and to identify any plans, policies and programs the Proponent is committed to that will increase benefits to the Indigenous workforce across all these categories.
- b. Socio-economic impacts on indigenous workers, their families and communities may be critical for the assessment. Consideration of impacts in the home, at work (including in a work camp environment, if applicable), and in the community may all be critical.
- c. Unless this requirement is explicitly excluded by affected Indigenous groups (e.g., if a Project will have only a small employment requirement), Proponents will be required to show evidence that they have an appropriately funded Indigenous training and career development plan, with long-lasting, meaningful Indigenous employment as a primary goal.

**13. Monitoring and adaptive management<sup>7</sup> mechanisms agreeable to and involving affected Indigenous groups will be included in the final commitments and conditions.**

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<sup>7</sup> Murray and Marmoek (2003, 1) define adaptive management as. “systematic approach for improving environmental management and building knowledge by learning from management outcomes”. Adaptive management requires, “exploring alternative ways to meet management objectives, predicting the outcomes of each alternative based on the current state of knowledge, implementing one or more of these alternatives, monitoring to learn which alternative best meets the



Appropriate mitigation options must be identified during the impact assessment; not left to be figured out later. This is important so that the efficacy of mitigation measures can be assessed. If effects differ from predictions, adaptive management systems will need to be implemented to maximize benefits and minimize impacts.

- a. When a Proponent proposes mitigation, evidence that socio-economic mitigation has worked before and will work in this instance, shall be provided to the indigenous group.
- b. Indigenous groups and Proponents will meet to identify and agree upon all relevant socio-economic mitigation and monitoring plans, prior to them being finalized.
- c. For major projects, a fulsome Human Environmental Monitoring Plan may be required, with extensive involvement of affected Indigenous groups.
- d. Development of follow-up plans must include the identification of agreed upon thresholds set to identify triggers for adaptive management action to be deployed; along with corresponding management plan measures/actions.
- e. The following will not be accepted as valid mitigation:
  - i. yet to be completed agreements
  - ii. ongoing discussions with Indigenous Groups
  - iii. prior notice before beginning construction or operations activities
- f. Adequate funding and supports should be in place to:
  - a. cover all the costs of full implementation of required mitigation and monitoring; and
  - b. ensure the participation of Indigenous Nations in implementation of all relevant socio-economic mitigation and monitoring plans and follow-up programs.

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management objectives (and testing predictions), and then using these results to update knowledge and adjust management actions.”

## Appendix I References

- Murray, C. M., and D. Marmorek. 2003. *Adaptive Management: A Science-Based Approach To Managing Ecosystems In The Face Of Uncertainty*. Prepared for presentation at the Fifth International Conference on Science and Management of Protected Areas: Making Ecosystem Based Management Work, Victoria, British Columbia, May 11- 16, 2003.
- Taylor, S. M., Elliott, S., Eyles, J., Frank, J., Haight, M., Streiner, D., Willms, D. 1991. Psychosocial impacts in populations exposed to solid waste facilities. *Social Science & Medicine*, 33(4), 441–447.

## Appendix 1 Example Questions

Example questions to guide considerations of adequacy of Indigenous socio-economic impact assessment in a major project assessment. NOTE: answering these questions successfully does not supersede following the guidance above.

- Did the Proponent offer the right of first refusal to conduct the Project-specific SEIA to the Indigenous group?
- Did the Proponent provide adequate funding and capacity building opportunities in order to support the Indigenous group in participating collaboratively in or leading all six steps of the Project-specific SEIA?
- Did the Proponent work with the Indigenous group early on to determine if there was sufficient socio-economic data to inform a meaningful baseline for the Nation?
- Was the SEIA conducted on a Nation-by-Nation basis, or were groups pooled together?
- Is it easy to recognize the Indigenous group's goals, values, and aspirations within the SEIA?
- Was the SEIA conducted using the laws, norms, and values of the Indigenous group as a framework?
- Was the SEIA inclusive of a broad-cross section (including Elders, women, and youth) of the Indigenous group?
- Did the SEIA identify and include information on, analysis of, and appropriate protections for, the most vulnerable sub-populations?
- Did the SEIA demonstrate that the Project will show contributions to Net Gains, *reconciliation*, and avoidance of adverse social and economic impacts on Indigenous communities?
- Did the SEIA include a realistic, rigorous and defensible assessment of the ability of Indigenous groups to take advantage of both business and employment benefits, and plans for Proponent support to help reduce systemic barriers?
- Did the Proponent provide adequate opportunities for the Indigenous group to participate in the development of socio-economic monitoring and adaptive management mechanisms?

## APPENDIX 2: INDIGENOUS CULTURAL IMPACT ASSESSMENT

Federal, provincial (e.g., British Columbia), and territorial assessment requirements have increasingly recognized the need for meaningful assessment of impacts on Indigenous culture. This document sets out requirements for expected practice of cultural impact assessment in relation to Indigenous peoples during major project assessment. Cultural impact assessment requirements that must be considered during a major project assessment include:

1. The Proponent will engage in early work and focus on the Proponent-Indigenous group relationship.
2. Culture holders must be recognized as experts and involved in all aspects of cultural impact assessment.
3. All ethical, legal and Indigenous protocols for engagement and cultural research must be followed.
4. Cultural knowledge and information must be recognized as the property of culture holders and be protected and respected.
5. There must be recognition that Indigenous cultures have different ways of knowing and communicating that should be incorporated into the cultural impact assessment.
6. There must be recognition that cultural impacts can only be understood in context – from the perspective of the culture holders themselves.
7. Culture must be recognized as multi-dimensional, and impacts can occur on a variety of cultural resources.
8. The proper focus and level of analytical effort for the cultural impact assessment will be determined as early as possible.
9. There must be recognition that cultural impact assessment is neither a do-it-yourself nor a “one size fits all” exercise.
10. The cultural impact assessment will prioritize impacts to the most valued cultural resources, the most likely affected groups, and the most vulnerable populations.
11. The cultural impact assessment will rely on an appropriate mix of primary and secondary data.
12. There must be recognition that cultural impacts have complex pathways and outcomes.
13. The proposed project’s location and the role of the affected area in the cultural landscape of the affected Indigenous group(s) will be central to effects assessment and significance determination.

14. There will be a focus on cultural impact avoidance as a priority, with adequate minimization and compensation measures demonstrably employed where impact avoidance cannot be assured.
15. Cultural monitoring plans and implementation must be agreed to and preferably conducted by the Indigenous groups themselves.

Further information on each requirement is provided below.

## Requirements For Expected Practice Of Cultural Impact Assessment

### **1. The Proponent will engage in early work and focus on the Proponent-Indigenous group relationship.**

Proponents should communicate early, often and effectively with culture holders, as this is the primary relationship in cultural impact assessment.

- a. Respectful initial interactions are critical to developing cross-cultural sensitivity and gaining the trust of - and access to - Indigenous communities. Early and appropriate community engagement can create a respectful relationship between parties and assist in proper identification and prioritization of cultural issues that may arise from a project in a specific location.
- b. Cultural impact assessment cannot be an afterthought; work on cultural impact assessment should begin at the same time that data is being collected on the biophysical environment, for example.
- c. Provision of adequate information about the proposed project in the format and extent sought by each Nation is critical to early engagement.
- d. At the same time a Proponent is educating a community about its proposed project, it should be committing resources (should the Indigenous group be willing) to be educated by the Indigenous group about its culture, history, and laws, norms and values

### **2. Culture holders be recognized as experts and involved in all aspects of cultural impact assessment.**

Indigenous cultures have distinct worldviews, values and rules that need to be incorporated into the cultural impact assessment.

- a. Cultural impacts must be viewed through the lens of the people most likely to be affected. Project scope, design, conduct and findings should be developed with culture holder input.
- b. Indigenous groups will be provided the right of first refusal to conduct Project-specific cultural impact assessments for their community.

Adequate funding must be provided to the community to complete this work.

- c. Results related to cultural impact assessment must be verified by culture holders prior to their submission, to confirm accuracy and promote dialogue.
- d. Determination of the significance of cultural impacts must rely heavily on inputs from the culture holders themselves. Impacts should be interpreted through the filter of the culture holders themselves, as the significance of impacts on cultural resources is itself culturally defined. It cannot be divorced from the cultural context and worldview of the people who value the cultural resources. Proponents are not to unilaterally assess the significance of their Projects on culture.

### **3. All ethical, legal and Indigenous protocols for engagement and cultural research must be followed.**

Indigenous protocols are as important if not more critical than the standard ethical norms and legal protocols Proponents and consultants are responsible for identifying and adhering to.

- a. Proponents should identify and adhere to community-specific and culture group-specific Indigenous protocols for cultural or heritage research. For greater certainty, acquisition of permits and licences for culture-related research activities such as heritage resource data collection does not supersede the requirement to adhere to community and culture group-specific protocols.
- b. The Proponent is responsible to ensure that any consultants they hire have adequate knowledge and experience to conduct research in an appropriate and respectful manner.
- c. The Proponent is responsible to confirm with the Indigenous group who are the proper people to talk to about cultural issues, and whether it is appropriate for someone from the outside to broach this subject or only appropriate for intra-community discussions. The answers to both questions will vary from community to community.
- d. Topics covered by professional, ethical and culture group-specific standards related to community-researcher relationships may include:
  - Collaborative research design;
  - Documentation of ‘free prior informed consent’ by all participants;
  - Confidentiality provisions for sensitive information;

- Requirements for communities to see results prior to release to ensure information is not taken out of context or findings omitted;
  - Public dissemination requirements and limitations; and
  - Ownership of research materials and results and future use.
4. **Cultural knowledge and information must be recognized as the property of culture holders and be protected and respected.**
- a. Cultural information belongs to the Indigenous group and individuals within it, may be sensitive, and should remain within the control of the culture holders themselves.
  - b. If an Indigenous community or culture group has concerns about sensitive cultural knowledge, they should alert other parties to ensure available protections for sensitive information built into the major project assessment process are fully utilized, including confidentiality provisions available under legislation and policy.
  - c. Repatriation of all collected cultural data to the Indigenous community/culture group in a format of their choosing is required at the end of any study.
5. **There must be recognition that Indigenous cultures have different ways of knowing and communicating and that should be incorporated into the cultural impact assessment.**

Inputs and outputs of cultural impact assessment need to be respectful of culturally specific values, ways of knowing and communicating.

- a. Culture groups are free to use whatever information or communication style is culturally appropriate to express their knowledge and concerns. For example, oral history - the stories shared from past generations by elders that identify the importance and meaning of places, are not merely historical or anecdotal. Oral history is often the canon of proof in Indigenous culture and should not be discounted versus technical inputs.
  - b. Proponents and assessment bodies must build time and steps/procedures into their processes to accommodate Indigenous ways of knowing and communicating (e.g., more time for Indigenous presentations, on-territory meetings, less legalistic hearing settings).
6. **There must be recognition that cultural impacts can only be understood in context – from the perspective of the culture holders themselves.**

The way people see and value an area or a physical resource will differ based on their history, culture and relationship to the particular place.

- a. Proponents, consultants, and assessment bodies all need to seek to be educated by the culture group about the unique cultural context in which the development is proposed. Culture groups are free to withhold sensitive information during this education process.
- b. Assertions about likely cultural effects outcomes that do not include the perspective of the culture holders themselves should be held in much lower confidence than assertions that include this context.
- c. Cumulative effects on cultural resources must be part of this context - Are there any past, present or reasonably foreseeable future developments or other human activities that may put adverse pressures on the valued cultural resources? How many? To what likely combined effect? (see also 10(c) below).
- d. It is recognized that there are other factors that contribute to Indigenous cultural change (e.g., moving from the land to settlements, shift from a *subsistence economy* to a wage economy, regional in-migration of people from different culture groups). Culture is not static. External factors beyond the control or the capacity of Proponents to deal with also play a role in cultural change. This does not, however, excuse Proponents from their responsibilities to facilitate the assessment of the ways in which their projects could contribute to/exacerbate existing adverse cultural changes.

**7. Recognition that culture is multi-dimensional and impacts can occur on a variety of cultural resources.** The traditional major project assessment focus on assessment of impacts on physical heritage resources typically will not cover many of the elements of culture people value and want to protect.

- a. Cultural impact assessment should not be constrained to only looking at tangible (e.g., physical sites, graves) cultural resources. All aspects of culture must be considered to see if there are viable impact pathways.
- b. On a case-by-case basis, cultural impact assessments may examine both cultural impacts from physical changes imposed on the land and other changes that don't have an immediate physical footprint, such as alterations to home/work life patterns, in-migration into the community, and increased wage economic activity.
- c. The identification of tangible, semi-tangible and intangible valued cultural resources<sup>8</sup> may all be required. Semi-tangible and intangible valued

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<sup>8</sup> The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018, 5) describes intangible cultural heritage as the, “practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.”



cultural resources include but are not limited to language, inter-generational knowledge transmission, sense of place, and spirituality.

- 8. The proper focus and level of analytical effort for the cultural impact assessment will be determined as early as possible.**
  - a. The nature and scale of the proposed project itself as well as the specific location and the greater cultural context into which it would be situated all need to be considered early on to determine the focus and level of analysis required for the cultural impact assessment.
  - b. Cultural impact assessment should consider only effects on culture that are important and which have some definable relationship to a change that would potentially be caused by the development itself. This must be demonstrably determined with direct Indigenous group involvement.
  
- 9. There must be recognition that cultural impact assessment is neither a do-it-yourself nor a “one size fits all” exercise.**
  - a. Cultural impact assessment requires specific expertise. Involvement of external specialists, appropriate degrees of rigor and documentation of methods and assumptions, is required to produce studies and deliverables that stand up to scrutiny.
  - b. Evidence must be provided that those people who worked on a cultural impact assessment have appropriate expertise and experience, as recognized by both professional standing and the affected Indigenous groups themselves.
  - c. For greater certainty, tangible, semi-tangible and intangible elements of cultural impact assessment may require different professional expertise.
  - d. Data from previous cultural studies may or may not be appropriate for referencing and use in a specific major project assessment. That determination must be made in direct consultation with the affected Indigenous group(s).
  - e. Cultural data from one Indigenous group, even if part of the same overall culture group, is generally not an acceptable proxy for another Indigenous group. This determination also must be made in direct consultation with the affected Indigenous group.
  
- 10. The cultural impact assessment will prioritize impacts to the most valued cultural resources, the most likely affected groups, and the most vulnerable populations.**

- a. Good cultural impact assessment scoping is about prioritizing issues. Avoidance of impacts on cultural resources deemed valuable by the culture group(s) should be prioritized.
- b. Special emphasis should be placed on protecting the most affected culture groups and most vulnerable culture holders. The interests of people who live closest to, value the highest, or most commonly use or otherwise enjoy the cultural resource should be given higher weight, while not ignoring concerns raised by other culture holders.
- c. Examination of the degree of cumulative impacts on the culture group and its cultural resources may be critical. One key question to pose is: are any of the cultural resources at pre-existing risk that places their protection at a higher premium?

**11. The cultural impact assessment will rely on an appropriate mix of primary and secondary data.**

- a. Cultural impact assessment should not typically be limited to a “desktop”, paper only study. Secondary sources can be effective in gaining cultural context prior to engagement and can assist in building an understanding of cultural baseline conditions and change over time. Appropriate and relevant information from secondary sources should be examined, but working with communities in the field should be a primary source of information.
- b. If the cultural impact assessment is not community-led, Proponents need to be able to show that their data collection methods and scope were fully vetted with and approved by the affected Indigenous community(ies).

**12. There must be recognition that cultural impacts have complex pathways and outcomes.**

- a. Those conducting cultural impact assessment must recognize that cultural impact pathways (the means by which a change occurs) may not be obvious to people outside the culture group. A pipeline passing within view of a sacred site may not seem like an impact to someone outside the culture group. This does not make the impact any less real from inside the culture group, where impacts may be very real in terms of loss of meaning associated with the site and disrespect for spiritual entities.
- b. Effective cultural impact assessment must recognize the complexity of potential cultural impact outcomes. Research shows, and culture holders tell us, that changes to their cultural surroundings can have significant and lasting impacts on people’s mental and physical well-being.<sup>9</sup> Proponents, government authorities and assessment bodies have to recognize the real

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<sup>9</sup> See also Appendix 4 on Health Impact Assessment.

nature of these possible impact outcomes and focus on working with Indigenous groups to identify ways to eliminate the source (the initial change) rather than merely waiting to treat the symptoms later.

**13. The proposed project's location and the role of the affected area in the cultural landscape of the affected Indigenous group(s) will be central to effects assessment and significance determination.**

- a. Consideration of cultural landscapes must be central to cultural impact assessment. In determining significance the importance of an area in relation to cultural landscapes must be recognized. Associations to certain places are deep seated.
- b. Cultural impact assessment must not assume that project size and the spatial extent of biophysical impacts are the only drivers of cultural impact potential. Small projects can have significant cultural impacts or a small component of a larger project may be the primary cause of cultural concern. For example, damage to a physically small part of a larger spiritual site may have far-reaching implications not readily visible or understandable to non-culture holders. A proposed pipeline across a sacred stream may cover only a tiny fraction of the sacred area, yet may damage the whole area's value in the eyes of culture holders, and alter their connection to it.

**14. There will be a focus on cultural impact avoidance as a priority, with adequate minimization and compensation measures demonstrably employed where impact avoidance cannot be assured.**

- a. Outright avoidance of cultural impacts is preferred over minimization, control (e.g., recovery of cultural artifacts), or compensation for unavoidable impacts, in declining order of preference.
  - i. High value cultural sites/ cultural landscapes must be avoided and maintained intact with appropriately sized protective buffers placed around them, as determined in concert with affected Indigenous groups.
  - ii. For greater clarity, it must be acknowledged that some locations are so sensitive that it is not possible to mitigate adverse effects to them through any means other than outright avoidance. This may be non-negotiable for an Indigenous group.
- b. Where avoidance of tangible to intangible cultural impacts cannot be accomplished, the Proponent must show evidence that it has verified the nature and magnitude of all residual adverse effects on culture with the affected Indigenous group(s), prior to a determination being made on what accommodations/offsets/compensation measures are required.

- c. Where impacts cannot be avoided or minimized to the satisfaction of the affected Indigenous group(s), compensatory measures that are deemed appropriate in scope and nature by the affected Indigenous group(s) themselves, must be identified and committed to.
- d. Determining the acceptability of mitigation or compensation measures requires consideration of questions such as:
  - i. Is the developer maximizing investments that can protect and promote beneficial impacts among central cultural resources for the affected culture group, alongside minimizing adverse impacts?
  - ii. Are trade-offs between likely impacts on valued cultural resources and beneficial impacts in other areas of value to the same group:
    1. **Understood** (i.e., demonstrably well characterized with a relatively high degree of confidence in the predicted outcome; relatively free from uncertainty);
    2. **Shared** with the Aboriginal group in an acceptable format and with adequate time to digest and respond;
    3. **Acceptable to** the culture group, meaning the cultural resource is not damaged beyond some acceptable threshold identified by the culture group; and
    4. **Accepted by** the Aboriginal group, within the appropriate formal consent process dictated by the culture group.

**15. Cultural monitoring plans and implementation must be agreed to and preferably conducted by the Indigenous groups themselves.**

- a. Affected Indigenous groups need to be involved in the determination of whether a cultural monitoring program is required.
- b. Where a cultural monitoring program is deemed necessary, a Proponent-funded program needs to be developed and staffed by the Indigenous group itself wherever this is desired by the group, with each program/plan needing identified measurable indicators, thresholds for triggering management actions, clearly identified management actions, and a clear and strong protection mandate for Indigenous monitors/guardians.

## Appendix 2 References

United Nations Educational, Scientific and Cultural Organization (UNESCO) 2018. Basic Texts of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage 2018 Edition. Available at: [https://ich.unesco.org/doc/src/2003\\_Convention\\_Basic\\_Texts-2018\\_version-EN.pdf](https://ich.unesco.org/doc/src/2003_Convention_Basic_Texts-2018_version-EN.pdf)

## Appendix 2 Example Questions

Example questions to guide considerations of adequacy of Indigenous cultural impact assessment in a major project assessment. NOTE: answering these questions successfully does not supersede following the guidance above):

- Did the Proponent offer the Indigenous group the right of first refusal to conduct the cultural impact assessment?
- Was adequate funding provided to the Indigenous group to actively participate in and or lead the cultural impact assessment?
- If the cultural impact assessment was not Indigenous group-led, did the Indigenous group agree to this, and were the Proponent's data collection and analytical methods shared with and approved by the Indigenous group?
- Did the cultural impact assessment bring forward the unique cultural context in which the development was proposed, including the Indigenous group's history, culture, and relationship to the proposed project location?
- Did the cultural impact assessment identify the degree of pre-existing cumulative impacts on the culture group and its cultural resources?
- Did the assessment identify and adhere to community specific or culture-group specific Indigenous protocols for cultural or heritage research?
- Did the Proponent respect and support the ownership of cultural information by the Indigenous group?
- Were culture holders recognized as experts and involved in all aspects of the assessment?
- Were culture holders a primary source of information for the assessment?
- Did the determination of significance of cultural impacts rely heavily on inputs from the culture holders themselves?
- Did the Indigenous group confirm/verify the findings of the assessment?
- Were all aspects of culture considered in the assessment, including tangible, semi-tangible, and intangible valued cultural resources?
- Did the Proponent explore all feasible measures/alternatives, with input from culture holders, to avoid impacts to cultural resources before identifying minimization and or compensation measures?



## APPENDIX 3: INDIGENOUS KNOWLEDGE INTEGRATION INTO MAJOR PROJECT ASSESSMENT

While existing environmental assessment systems have requirements related to the incorporation of Indigenous Knowledge, that knowledge has often been treated narrowly as an input, and divorced from its cultural context and from the people who actually hold it. This document sets out requirements for the appropriate and respectful integration of Indigenous Knowledge<sup>10</sup> into major project assessment. They include:

1. Adequate time and financial support must be provided to Indigenous communities for the collection, management, authorization, validation and verification of Indigenous Knowledge.
2. Indigenous Knowledge collection and data analysis will occur as early as possible and prior to filing applications for major projects.
3. Indigenous groups must be provided the right of first refusal to conduct their own Indigenous Knowledge data collection and analysis.
4. Strong preference will be given to the collection of primary, Project-specific and Indigenous group-specific Indigenous Knowledge data.
5. All consultants and employees (employed/contracted by Proponents, Government, Indigenous groups) working to integrate Indigenous Knowledge into a major project assessment must demonstrate experience in this type of work acceptable to the affected Indigenous groups.
6. Adherence to all community-specific Indigenous Knowledge protocols must be demonstrated.
7. There must be recognition that Indigenous communities have full control over and ownership of their Indigenous Knowledge as intellectual property.
8. Terms of Reference for the major project assessment must include adequate requirements agreed to by affected Indigenous groups for integration of Indigenous Knowledge evidence.
9. Data collection must make room for stories and oral history, collected in a setting comfortable to the Indigenous Knowledge holder.

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<sup>10</sup> Throughout the Major Project Assessment Standard and its Appendices, the term Indigenous knowledge is used. It is treated herein as synonymous with other terms like Traditional Knowledge.

10. Interpretation of Indigenous Knowledge must be conducted by, or subject to verification by, Indigenous Knowledge holders themselves.
11. The nature and transferability of Indigenous Knowledge specific to each Indigenous Nation must be understood, especially in relation to who holds Indigenous Knowledge, how it can be interpreted and by whom, and what constitutes Indigenous Knowledge.
12. The use of Indigenous Knowledge in decision-making processes must be central (treated with similar value as scientific data), clearly articulated, and presented back to Indigenous communities in an accessible and understandable format.

Further information on each requirement is provided below.

## Appropriate and Respectful Integration of Indigenous Knowledge

- 1. Adequate time and financial support must be provided to Indigenous communities for the collection, management, authorization, validation and verification of Indigenous Knowledge.**
  - a. Affected Indigenous groups will be provided adequate funding and adequate time to conduct Project-specific Indigenous land use and Indigenous Knowledge studies, if they so choose.
  - b. Should the affected Indigenous group(s) choose not to conduct their own Indigenous Knowledge data collection, funding and time must still be provided for review and verification of any Proponent-led work and interpretation of Indigenous Knowledge.
- 2. Indigenous Knowledge collection and data analysis will occur as early as possible and prior to filing applications for major projects.**
  - a. Indigenous groups' Indigenous Knowledge will be actively and respectfully sought by Proponents right from the outset of project planning.
    - i. As part of this initial planning the Proponent is expected to provide all information relevant to the project in the format and extent sought by each Nation to inform their collection and analysis (including shapefiles and other digital materials that can inform Indigenous Knowledge interviews).
  - b. Indigenous Knowledge is applicable across many aspects of environmental assessment, and its inclusion must be demonstrated for all Valued Components, unless a justifiable rationale is provided for its exclusion.



- c. Indigenous Knowledge data collection should start at a similar time as scientific data collection. Indigenous Knowledge must not be collected as an afterthought but instead requires equal planning and effort so that it can be weighed equally to – and at the same time as – scientific inputs in decision-making.
3. **Indigenous groups must be provided the right of first refusal to conduct their own Indigenous Knowledge data collection and analysis.**
    - a. Proponents will show evidence of efforts to engage the affected Indigenous groups as collectors and analysts of their own Indigenous Land Use/Indigenous Knowledge in relation to the proposed project.
  4. **Strong preference will be given to the collection of primary, Project-specific and Indigenous group-specific Indigenous Knowledge data.**
    - a. Use of only “publicly available”, secondary Indigenous Land Use/Indigenous Knowledge data is strongly discouraged. If it is used, confirmation by the affected Indigenous group of the appropriateness of its exclusive use must be provided.
    - b. Indigenous Knowledge is generally non-transferable from one location and one time to another unless expressly adopted by the Indigenous group.
  5. **All consultants and employees (employed/contracted by Proponents, Government, Indigenous groups) working to integrate Indigenous Knowledge into a major project assessment must demonstrate experience in this type of work acceptable to the affected Indigenous groups.**
    - a. Government and Proponents need to integrate Indigenous Knowledge, cultural understanding, respect and awareness, into new employee onboarding procedures along with planned regular and refresher training and encourage professional development.
    - b. Consultants should provide evidence of experience in this type of work including where possible testimonials from Indigenous groups they have worked with previously.
    - c. Ultimately, it is at the discretion of the Indigenous group which external supports (if any) they want to work with.
  6. **Adherence to all community-specific Indigenous Knowledge protocols must be demonstrated.**
    - a. Indigenous protocols as well as ethical principles, established through best practice and defined in academic literature, of Indigenous Knowledge research must be followed.

- b. Proponents must recognize that Indigenous protocols are not static. Proponents will need to review community protocols and engage with communities to determine mutually satisfactory project-specific or process-specific Indigenous Knowledge and engagement plans that comply with the protocols.
  - c. Where an Indigenous protocol is not apparent, a Proponent must consult with the Indigenous group to clarify expectations and procedures.
  - d. The Proponent will be expected to list all the protocols and sources of same, it used in its collection and incorporation of Indigenous Knowledge, and provide evidence that Indigenous groups have verified that all relevant protocols were met.
- 7. There must be recognition that Indigenous communities have full control over and ownership of their Indigenous Knowledge as intellectual property.**
- a. The use of Indigenous Knowledge without specific written permissions from the Indigenous group is prohibited.
  - b. Proponents and all agents of the Crown will treat all Indigenous Knowledge as confidential unless and until the Indigenous group indicates otherwise in writing.
  - c. Similar provisions apply for Indigenous Land Use data (see Appendix 5: Indigenous Land Use Assessment).
  - d. Individual Indigenous group members involved in Indigenous Knowledge data collection (respondents), must provide their free, prior and informed consent in writing.
- 8. Terms of Reference for the major project assessment must include adequate requirements agreed to by affected Indigenous groups for integration of Indigenous Knowledge evidence.**
- a. Specific Valued Components and indicators where Indigenous Knowledge data collection is of particular relevance and importance will be identified and confirmed by the affected Indigenous groups. Indicators should not be limited to scientifically measurable phenomena; they should also reflect and respect Indigenous Knowledge and ways of knowing. This may include non-technical “sensory” indicators in the scope of assessment; things Indigenous Knowledge holders can see, touch, smell, hear, taste or otherwise sense.
  - b. Indigenous Knowledge data needs to be “braided” with biophysical Valued Components throughout all phases of the assessment of relevant Valued Components, from early scoping phase, analysis of effects,

mitigation identification, conclusions, monitoring and follow-up programs through to final recommendations and decision-making.

- i. Indigenous Knowledge should be sought in the identification and assessment of project effects on ecological values and services as it plays a key role in understanding the state, change over time, and vulnerability of the biophysical environment. Indigenous Knowledge will not be restricted to informing Application sections on culture and Indigenous land use alone but rather all sections.
- c. Where Indigenous Knowledge indicates a need for greater, time, funding and focus on priority Valued Components, this may require the funding and development of Value-specific Indigenous Knowledge studies (e.g., a Boreal Caribou or Moose Indigenous Knowledge Study).

**9. Data collection must make room for stories and oral history, collected in a setting comfortable to the Indigenous Knowledge holder.**

- a. Proponents and assessment bodies will acknowledge and respect the different cultural frames of reference unique to knowledge holders. This can include:
  - i. Being prepared to listen carefully to and learn from Indigenous Knowledge and oral history, often provided by Elders.
  - ii. Going out on the land with Indigenous Knowledge holders to hear directly from them the values and stories associated with the location.
  - iii. Recognition that cultural signals may differ (e.g., silence may not indicate agreement).
  - iv. Overtly recognizing and making all efforts to adhere to Indigenous laws, rules and norms.
  - v. Early and continuous incorporation of ceremonies and other protocols required prior to, during, and after meetings.
  - vi. Provision of opportunities for Knowledge Holders to speak directly with decision-makers, with an ample time period for their input to be shared in a culturally-appropriate fashion.

**10. Interpretation of Indigenous Knowledge must be conducted by, or subject to verification by, Indigenous Knowledge holders themselves.**

Evidence must be provided that Indigenous Knowledge holders and Indigenous community representatives approve of the way in which Indigenous Knowledge was interpreted prior to it being used to support decision-making.

- a. Re-interpretation of Indigenous Knowledge from outside – e.g., by western scientists or the Proponent – is not appropriate.
  - b. Indigenous Knowledge “peer review” must be done by knowledge holders from the culture group, and the Proponent must provide evidence that verification of interpretation by Indigenous Knowledge holders/Indigenous community members was completed.
  - c. If Indigenous Knowledge has not been used or interpreted successfully, the methods used must be revisited and adapted to the satisfaction of the Indigenous group that provided it, prior to any filings into evidence.
11. **The nature and transferability of Indigenous Knowledge specific to each Indigenous Nation must be understood, especially in relation to who holds Indigenous Knowledge, how it can be interpreted and by whom, and what constitutes Indigenous Knowledge.**

The following statements refute common but inaccurate assumptions about transferability of Indigenous Knowledge:

- a. Indigenous Knowledge input by one or a few individuals is not representative of an entire group.
  - b. Lack of evidence of current use does not necessarily mean an area is of limited to no value; in other words, absence of evidence of value is not necessarily evidence of absence of value.
  - c. Indigenous Knowledge observations that do not readily agree with technical data should not be assumed to be incorrect and subservient to the scientific evidence.
  - d. The Indigenous Knowledge of one Indigenous group cannot be used as a proxy for any other Indigenous group.
  - e. Past Indigenous Knowledge studies are not necessarily representative of the Indigenous community today, and may need updating.
  - f. Indigenous Knowledge for a specific species is not necessarily representative or transferable to other species.
  - g. Indigenous Knowledge for a specific location is not necessarily representative or transferable to a different or larger location.
  - h. Observations or comments made as part of consultation processes are not to be labeled Indigenous Knowledge without the expressed documented consent of the Indigenous group and individuals involved.
12. **The use of Indigenous Knowledge in decision-making processes must be central (treated with similar value as scientific data), clearly articulated, and**

**presented back to Indigenous communities in an accessible and understandable format.**

Indigenous Knowledge is a body of knowledge, a world view and way of knowing that can provide a deeper insight into the way that the natural and human environments work and have changed over time.

- a. Indigenous Knowledge must be recognized as an equal input when deciding whether an environmental assessment is conducted (for example, when a “sub-threshold” Project is in or impacting on a sensitive location), how the environmental assessment process is conducted, and/or whether a proposed project is allowed to proceed and under what conditions.
- b. Indigenous knowledge will not be treated as solely a data input, but also as a decision-making lens, for major project assessments. This requires the involvement of Indigenous Knowledge holders in decision-making.
- c. When there is a conflict between scientific and Indigenous Knowledge predictions or findings, there is a need for clear rationale by decision-makers in support of deciding to embrace one or the other conclusion in its decision. In addition, evidence must be shown that the decision-maker utilized the precautionary principle in its decision.

## Appendix 3 Example Questions

Example questions to guide considerations of adequacy of Indigenous Knowledge inclusion in a major project assessment. NOTE: answering these questions successfully does not supersede following the guidance above.

- Did the Proponent engage the Indigenous group early, follow protocols, and provide appropriate funding for Indigenous Knowledge research?
- Did the Proponent seek verification of your Indigenous Knowledge and any interpretation made by them of it?
- Were the Indigenous groups provided easy to read and understand, plain language, summaries of all reports that included Indigenous Knowledge?
- Is it easy to see where and how Indigenous Knowledge was used in the Project application?
- Was all Indigenous Knowledge included and interpreted correctly in the Proponent's Application?
- Were Indigenous Knowledge inputs included in environmental effects characterization on Valued Components, verified with the Indigenous community, and clearly informed decisions of significance?
- Was how Indigenous Knowledge was considered in determining significance/acceptability clearly communicated? Was the determination made in concert with the Indigenous group or was it subject to reinterpretation of Indigenous Knowledge?

## APPENDIX 4: INDIGENOUS HEALTH IMPACT ASSESSMENT

This document sets out requirements for meaningful conduct of Indigenous health impact assessment<sup>11</sup> during major project assessment. This Appendix focuses on information and methodological requirements to guide whatever type of health impact assessment is required; it does not specifically define the process by which health impact assessment should occur.<sup>12</sup> Expectations for proper conduct of Indigenous health impact assessment include:

1. Affected Indigenous groups will be provided the right of first refusal to engage in the health impact assessment from the outset and remain engaged throughout the process.
2. Provision of adequate funding and time for Indigenous groups to conduct and/or comment on health impact assessments.
3. Health impact assessments will be undertaken by experienced professionals that the Indigenous group(s) are comfortable working with.
4. A health impact assessment's scope is tied to the size and complexity of the proposed project, scale and scope of health risks, and the vulnerability of the affected Indigenous groups to health impacts.
5. The scope of Indigenous health impact assessment must be closely tied to Indigenous definitions of health and Indigenous determinants of health.
6. Indigenous health data will be disaggregated from non-Indigenous health data, and where possible disaggregated between different Indigenous groups.
7. Focus on the people most vulnerable to health impacts from the proposed project.
8. Cumulative effects context – the “weight of recent history” – on Indigenous health is critical to understand prior to estimating project-specific effects.
9. Triangulation from a variety of health data and perspective sources.
10. Inclusion of an appropriately broad range of potential health impact causes and outcomes.

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<sup>11</sup> For the purposes of this Appendix, Indigenous health impact assessment can be defined as assessment conducted to estimate and manage the effects of a major project on Indigenous community health and well-being.

<sup>12</sup> For Proponents or Indigenous groups looking for a specific health impact assessment process designed to properly focus on Indigenous issues, one good example is the Tsimshian Environmental Stewardship Authority's *A Guideline for Conducting Health Impact Assessment For First Nations in British Columbia*, released in draft form in July 2018 (TESA 2018). Contact the Tsimshian Environmental Stewardship Authority for more information.

11. Identification of enforceable and implementable health impact avoidance, mitigation and offset measures will be conducted with affected Indigenous groups.
12. Determination of significance be informed by or conducted from an Indigenous health perspective.

Further information on each requirement is provided below.

## Proper Conduct of Indigenous Health Impact Assessment

### **1. Affected Indigenous groups will be provided the right of first refusal to engage in the health impact assessment from the outset and remain engaged throughout the process.**

The affected Indigenous group must be invited to play an active role throughout the entire health impact assessment process. This may include the right to take charge of the conduct of an independent health impact assessment for their community or to collaborate with the Proponent in the health impact assessment.

- a. Indigenous group requests to take the primary or exclusive role in the community-specific health impact assessment will be respected, adhered to, and adequately funded.
- b. To develop appropriate health determinants and health outcomes indicators, communities need to be actively engaged in identifying their current health concerns related to potential environmental health issues, possible environmentally caused chronic conditions and infectious diseases, and any possible health-related concerns regarding the proposed project.

### **2. Provision of adequate funding and time for Indigenous groups to conduct and/or comment on health impact assessments.**

- a. Given the complexity of health impact assessment, it is expected that by the time a project description for a major project is developed, the scoping of health impact assessment will be started.
- b. It is also expected that indigenous health impact assessments will be completed prior to the filing of an Application by the Proponent and fully integrated into that Application.

### **3. Health impact assessments will be undertaken by experienced professionals that the Indigenous group(s) are comfortable working with.**

Health impact assessment is not a “do it yourself” exercise.



- a. Researchers must have appropriate credentials to undertake multiple aspects of health impact assessment, and be vetted by the Indigenous nations being assessed. Direct experience working with Indigenous nations, cultural sensitivity and knowledge of the culture group, experience in Indigenous health impact assessment, and knowledge of and willingness to adhere to all ethical and cultural guidelines for Indigenous health impact assessment, may be among the considerations.
- b. If Indigenous nations identify preferred health impact assessment researchers, they should be utilized where available.
- c. The adequacy of the health impact assessment should be subject to peer review agreeable to the affected Indigenous groups prior to filing. This may involve peer review by the Indigenous group, health analysts not involved in the data collection, or both.
  - i. Health impact assessment preliminary findings will be reported to the Indigenous group via appropriate communication channels, in plain language, and an opportunity to comment will be provided, prior to filing project applications.

**4. A health impact assessment’s scope is tied to the size and complexity of the proposed project, scale and scope of health risks, and the vulnerability of the affected Indigenous groups to health impacts.**

There is no “one size fits all” approach to health impact assessment; it will play a minor role in some major project assessments and a major one in others.

- a. The scope and scale of any required health impact assessment has to be determined collaboratively between the Proponent and the affected Indigenous groups as early as possible in the process. To ensure the usefulness of health impact assessment, it is vital that the parameters of the assessment are meaningful to the community and relevant to potential project interactions with human health.
- b. The geographic scope of the assessment may need to include changes on the land (including “downstream” effects), and changes in the communities where Indigenous people reside or access services, as well as within the working environment itself (particularly if there are remote work camps planned).

**5. The scope of Indigenous health impact assessment must be closely tied to Indigenous definitions of health and Indigenous determinants of health.**

Health and wellbeing are a result of complex interlinked web of biophysical, socioeconomic, mental, cultural, and spiritual factors, also known as *health determinants*. Health impact assessment needs to pay attention to the project-

associated changes in both health determinants as well as various health outcomes.

- a. Indigenous groups often have very different definitions of health and well-being from settler societies. Health from an indigenous perspective may focus on the interconnectedness of mental, spiritual, physical and emotional domains, whereas western science has often focused on **biomedical factors**/issues and society/culture separately.<sup>13</sup>
- b. Given connections between socio-economic and cultural assessments and health impact assessments, the studies should inform one another, with an Indigenous health impact assessment not being completed until inputs from these other assessments can be brought forward to inform it.
- c. Indigenous health impact assessment must include considerations of cultural and socio-economic determinants of health (including connection to territory), which go beyond commonly examined factors for non-Indigenous health impact assessment such as **biophysical** contaminant and physical risk exposures. Some common Indigenous health determinants include but are not limited to:<sup>14</sup>
  - i. Access to traditional territory and traditional food
  - ii. Engagement in traditional practices
  - iii. Cultural continuity, including language
  - iv. Food security, faith in **country food** and medicine sources, diet and food sharing networks
  - v. Community infrastructure
  - vi. Access to mental and physical health services and supports
  - vii. Adequacy, cost, and availability of housing
  - viii. Education, employment and income levels
  - ix. Relationships between generations (e.g., youth and elders)
    - x. Access to and sharing of traditional knowledge
    - xi. Degree of economic independence (individually and communally)
    - xii. Work-life balance and workplace satisfaction

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<sup>13</sup> TESA (2018, pg. 17), states that health through the Indigenous perspective encompasses the health and wellbeing of the culture, the land, the community and the spirit.

<sup>14</sup> Many of these are drawn from TESA (2018, pg. 18-19).

- xiii. Community cohesion (e.g., culture group activity levels)
  - xiv. Freedom from racism and colonial practices and policies
  - xv. Degree of self-determination
  - xvi. Knowledge of and engagement in spirituality
  - xvii. Ability to steward traditional lands and govern territory
  - xviii. Low reported stress levels
  - xix. Ability to maintain family values and spend time with family
- d. Knowing these determinants of well-being is as important as knowing about their converse – signs of poor health and dysfunction. A focus on understanding and promoting positive determinants of health is a critical part of any Indigenous health impact assessment, rather than a sole focus on chronicling elements of dysfunction. This allows for a focus on causes of poor health critical to overcoming them.
  - e. Where individual Indigenous groups have developed their own communal/culture group definitions of health and key determinants of health, these should be reviewed and largely adopted as the focus for that community’s health impact assessment. Where they have not, the Indigenous group needs to be involved in scoping in the appropriate determinants of health into the assessment, identification of appropriate indicators and ways to measure them.

**6. Indigenous health data will be disaggregated from non-Indigenous health data, and where possible disaggregated between different Indigenous groups.**

Given large scale differences both in what defines health and wellbeing, and in health status and outcomes for Canadian Indigenous and non-Indigenous peoples (e.g., Indigenous peoples have much poorer health status when gauged via biomedical metrics), the pooling of regional or local health data between these two sub-populations will likely lead to “masking” of critical differences such as higher vulnerability to future health effects of Indigenous peoples, and failure to identify how project-related risks may be experienced disproportionately by vulnerable Indigenous groups.

- a. Health data and issues from one Indigenous group affected by a proposed project cannot be used as a proxy for another Indigenous group. Wherever possible, data collection and assessments should be conducted on a Nation-by-Nation basis.
- b. Indigenous Nation specific health baselines should be developed from secondary data where possible and appropriate to the scope of the health impact assessment.

- c. Where possible, data differentiating health status between health on- and off-reserve for the same Indigenous group should be accessed.
- d. Where there is inadequate secondary disaggregated health data to differentiate between Indigenous and non-Indigenous groups or to identify community-specific health (and determinants of health) issues, further primary baseline data collection may be deemed necessary.
  - i. Health data can contain sensitive information and practitioners must follow all ethical guidelines and ensure those involved in the assessment have provided informed consent and have their confidentiality preserved.

**7. Focus on the people most vulnerable to health impacts from the proposed project.**

A general principle of all impact assessment is to focus on the most sensitive – i.e., vulnerable - receptors. In health impact assessment, there are two levels to this “vulnerability” focus.

- a. First of all, Indigenous groups are more vulnerable overall to changes to the natural environment due to their intricate cultural, social and economic connection to the land, and because Indigenous people systematically and historically have had access to less of the factors that positively influence health resilience (e.g., high incomes, high levels of education, good housing, access to health care, etc.). As a result, Indigenous groups often merit more focus than non-Indigenous groups in the health impact assessment.
- b. Secondly, women,<sup>15</sup> Elders, youth and those who live on the economic margins within the Indigenous group(s), may be more vulnerable/susceptible to health impacts from new developments, and also merit close attention.
- c. Health impact assessors need to demonstrate that their scoping techniques identify all vulnerable sub-populations and that the assessment focuses proportionately on the people most likely to feel potential negative health outcomes.

**8. Cumulative effects context – the “weight of recent history” – on Indigenous health is critical to understand prior to estimating project-specific effects.**

In many if not all Indigenous communities, many of the primary adverse effects on community and population health – whether measured through Indigenous or biomedical wellbeing perspectives – have been caused by external *anthropogenic*

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<sup>15</sup> An example resource in the growing field of gender impact assessment is *Indigenous Communities and Industrial Camps: Promoting Healthy Communities in Settings of Industrial Change*. The Firelight Group, Lake Babine Nation, and Nak’azdli Whut’en (2017).

*factors* beyond the control of the Indigenous group to avoid or mitigate. This has created vulnerability to further change that must be understood in order to conduct both project-specific and cumulative health impact assessments.

- a. Cumulative environmental, community and health effects focused on change to date from an appropriate past “baseline” must be integrated and explicitly discussed in the health impact assessment context.
- b. Cumulative health impacts must be assessed in accordance with criteria of good practice of cumulative impact assessment identified in Principle #8 of the Major Project Assessment Standard. This includes but is not limited to intergenerational historical trauma caused by colonial practices, accumulated pollution hotspots caused by industrial development, environmental dispossession, among other factors.

## **9. Triangulation from a variety of health data and perspective sources.**

Qualitative (the “why” of health determinants, impacts and outcomes) and quantitative (the “what”) inputs may both be critical to effective Indigenous health impact assessment.

- a. Given that Indigenous health definitions and determinants, as well as the Indigenous worldview, may differ substantially from the majority population as well as the perspectives and experiences of the assessors themselves, the perspectives and observations of the Indigenous group members themselves must be well documented.
- b. The assessment has to take into consideration scientific, local, and Indigenous Knowledge that is relevant to understanding health determinants, current health status, and identifying and evaluating health impacts likely to occur from the Project.
  - i. Indicators should reflect and respect Indigenous knowledge and ways of knowing; including non-technical sensory and observational indicators - things Indigenous knowledge holders can see, touch, smell, hear, taste or otherwise sense.
  - ii. Data can be collected from Indigenous peoples through surveys (including *risk perception* surveys), focus groups, individual interviews (on and off territory), scoping sessions and verification sessions, among many other techniques.
- c. The perspectives of mental and physical health service providers from the local and regional area, including Indigenous groups’ health departments, may be critical.
- d. Health impact assessment data collection may need to cover each of the following aspects of the Indigenous experience and changes to them:

- i. On the land;
- ii. In the community;
- iii. At home (within families); and
- iv. In the workforce (where Indigenous people are entering into the Project-specific workforce, and especially when long distance commuting and/or work camp extended shift work is involved).

**10. Inclusion of an appropriately broad range of potential health impact causes and outcomes.**

Health impact assessment needs to reach out beyond the current focus on physical exposure to contaminants – the human health risk assessment approach – to recognize a larger multitude of potential health impact inputs and outcomes. Human health risk assessment may be necessary, but is rarely if ever sufficient, to capture all potential project effects on Indigenous health.

- a. For Indigenous peoples, this may include impact causing factors including but not limited to:
  - i. Changed access to traditional territory, including harvesting areas and areas of cultural significance
  - ii. Changed access to traditional food and reduced trust in safety of drinking water from lakes and streams
  - iii. Disruption of cultural continuity
  - iv. Influx of workers and job seekers into small communities
  - v. Increased stress on health services and infrastructure
  - vi. Changes to housing market
  - vii. Workplace interaction with people from other culture groups
  - viii. Increased disparities in income between community members
  - ix. Increased traffic
- b. Health impact outcomes may also be varied and can include but are not limited to:
  - i. Heightened risk of contamination or physical injury

- ii. Creation of psycho-social fears about use of land and resources and concerns for the future; leading to communal and individual mental stress
  - iii. Reduced community cohesion (often a primary determinant of Indigenous health)
  - iv. Increased vulnerability of women to physical and sexual violence
  - v. Reduced (or increased) access to primary health services
  - vi. Poorer (or better) diet and associated physical health impacts for individuals and families
  - vii. Reduced family cohesion, especially where long distance commuting to work camps is involved
  - viii. Increased high risk activities (e.g, crime, drug or alcohol abuse)
- c. It is important to remember that not all health impacts from a major project will be negative. Some impacts may be beneficial, such as increased access to health services for workers, increased income for families, and potentially local investment in health infrastructure. Both beneficial and adverse impacts must be characterized in health impact assessment.
- d. Explicit health hazards must still be part of the health impact assessment. They can include:
- i. Agents of *communicable diseases* (such as the *E.coli* bacteria).
  - ii. Agents of *non-communicable* diseases (such as pesticide or radiation poisoning).
  - iii. Agents of physical injury (such as traffic and fast-moving machinery).
- e. Given both the explicit harm and potential psycho-social harm (including perceived risk even when an accident has not yet occurred) of accidents and malfunctions from a project, the health impact implications of failure modes, including worst case scenarios, needs to be part of the required assessment of accidents and malfunctions for any project deemed by Indigenous groups to be of public concern in relation to accident scenarios. The geographic and *temporal* implications of different possible accidents/failure modes need to be part of this assessment.

**11. Identification of enforceable and implementable health impact avoidance, mitigation and offset measures will be conducted with affected Indigenous groups.**

- a. Management plans need to be developed in concert with affected Indigenous groups, be adaptive, and may be required for the life cycle of the project. Management plans required may include but are not limited to *risk communication* plans (including country food risk communication), community health and safety management plans, work camp health promotion plans, in-migration management plans, and cultural health management plans.
- b. Indigenous groups should be directly involved in the development of emergency preparedness, communication and response plans for any project that is deemed by the Indigenous group to be of high public concern.
- c. Where information about project health risks are not completely known during the major project assessment (i.e., the location, nature and risks of ancillary work sites and activities), conditions of approval should allow for reconsideration of those health risks by the Proponent, affected Indigenous groups, and decisions makers prior to any activities taking place at those sites.

**12. Determination of significance will be informed by or conducted from an Indigenous health perspective.** Indigenous people have key contextual knowledge that can help understand the magnitude and significance of Project-related impacts/benefits to their health outcomes.

- a. Any estimation of significance of potential effects to Indigenous health must be demonstrably informed by and verified by the affected Indigenous community.
- b. Multiple methods and metrics may need to be used to determine significance of impacts on Indigenous health. Depending on the indicator, the significance of the effect can be determined scientifically, socio-culturally (by the Indigenous people through their own way of seeing the world), or using a mixture of both. Such measures can be qualitative or quantitative.
- c. Given the heightened risk of poor health outcomes in many Indigenous communities in the current (pre-project) circumstance, Indigenous communities may push for definitions of significance that require no net loss to community health status and a requirement for the project to show net gains to community health status.



## Appendix 4 References

- The Firelight Group, Lake Babine Nation, and Nak'azdli Whut'en. 2017. *Indigenous Communities and Industrial Camps: Promoting Healthy Communities in Settings of Industrial Change*. The Firelight Group, Lake Babine Nation, and Nak'azdli Whut'en. February 2017. Accessible at [http://www.thefirelightgroup.com/firelightmaterials/wp-content/uploads/2016/03/Firelight-work-camps-Feb-8-2017\\_FINAL.pdf](http://www.thefirelightgroup.com/firelightmaterials/wp-content/uploads/2016/03/Firelight-work-camps-Feb-8-2017_FINAL.pdf)
- TESA (Tsimshian Environmental Stewardship Authority.) 2018. *A Guideline for Conducting Health Impact Assessment For First Nations in British Columbia*, (released in draft form) July 2018. Contact Tsimshian Environmental Stewardship Authority for more information

## Appendix 4 Example Questions

Example questions to guide considerations of adequacy of Indigenous health impact assessment (HIA) in a major project assessment (NOTE: successfully answering these questions do not supersede following the guidance above):

- Did the Proponent offer the right of first refusal to conduct the Project-specific Indigenous HIA to the Indigenous group?
- Was adequate funding provided to the Indigenous group to actively participate in and or lead the HIA?
- Was the HIA conducted on a Nation-by-Nation basis?
- Was Indigenous health data disaggregated from non-indigenous health data?
- Were researchers for the HIA selected by the Indigenous group or at minimum vetted by the Indigenous group prior to conducting research for the HIA?
- Was the scope and scale of the HIA developed early on and in collaboration with the Indigenous group?
- Did the scope identify - and the assessment focus on - the people most likely to feel potential health outcomes?
- Does the HIA reflect and include the Indigenous group's own definitions of health as well as determinants of health most relevant to affected Indigenous groups?
- Did the assessment take into consideration all relevant scientific, local, and Indigenous Knowledge important to understanding health determinants?
- Were the perspectives of mental and physical health service providers from the affected area sought, including Indigenous groups' health departments?
- Did the HIA integrate and explicitly discuss cumulative environmental, community, and health effects?
- Were all aspects of the Indigenous lifeworld and changes to them considered in the assessment, including: on the land; in the community; at home (within families); and in the workforce?
- Was the estimation of the significance of potential effects on Indigenous health conducted with and deemed accurate by the Indigenous group?

## APPENDIX 5: INDIGENOUS LAND USE ASSESSMENT

This document sets out requirements for expected practice of Indigenous land use assessment<sup>16</sup> during major project assessment. Requirements for effective Indigenous land use assessment include:

1. Provision of the right of first refusal for each affected Indigenous group to conduct a project-specific Indigenous land use study, if desired.
2. All aspects of the Indigenous land use assessment will be subject to conduct by and/or verification by affected Indigenous groups.
3. Indigenous land use will be a discrete Valued Component in all major project assessments, unless an individual Indigenous group identifies a preferred alternative Valued Component.
4. Land use by one Indigenous group is not an acceptable proxy for land use by another Indigenous group.
5. Past Indigenous land use studies may not be adequate to measure Indigenous land use values today and into the future.
6. The use of biophysical and access proxies as a replacement for a full consideration of enabling factors for Indigenous land use is not acceptable.
7. Triangulation of information from a variety of sources is advisable, with data specifically coming from the Indigenous group as a mandatory input.
8. Indigenous land use assessment should include identification by Indigenous group members of past uses, current uses, and desired future uses in the affected area, and assessment of effects on all these temporal scopes.
9. Mapped traditional land use data must be recognized as only a portion of the land use data and experience of an Indigenous group.
10. Understanding the cumulative effects context for Indigenous land use is critical.

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<sup>16</sup> A variety of other names are used for this type of assessment, including traditional land use assessment, Indigenous knowledge and use assessment, traditional land and resource use assessment and current use of lands and resources for traditional purposes. The Coalition uses the term Indigenous land use assessment because members have expressed some concern that the term “traditional” suggests that such activities are from the past, when in fact they are very much a part of Indigenous peoples’ present and future. The term “land use” in this context includes use and values associated with all aspects of the biophysical and socio-cultural environment, including but not limited to land, water, air, wildlife, landforms and vegetation – the lived environment of Indigenous peoples.

11. Proper assessment of Indigenous land use includes examination of both use and alienation/loss of use.
12. Not all areas are of equal value for Indigenous land use – preferred areas and preferred resources may have higher value and, likewise, greater effect magnitudes if altered.
13. Establishment of thresholds of required resources to support meaningful Indigenous land use practices may be appropriate in some, but not all, instances.
14. Indigenous land use is a human activity, with factors influencing it like risk perception, cultural values and norms, and subjective interpretations of the environment; all these factors are relevant to Indigenous land use assessment.
15. Determination of significance of project-specific and cumulative effects on Indigenous land use must meaningfully involve the affected Indigenous group.

Further information on each requirement is provided below.

## Requirements for Effective Indigenous Land Use Assessment

- 1. Provision of the right of first refusal for each affected Indigenous group to conduct a project-specific Indigenous land use study, if desired.**
  - a. Adequate time, information about the project, and funding to conduct an appropriate Indigenous land use study and any other required studies to understand effects on Indigenous land use, will be made available to all affected Indigenous groups.
- 2. All aspects of the Indigenous land use assessment will be subject to conduct by and/or verification by affected Indigenous groups.**
  - a. If the Indigenous group chooses not to conduct its own assessment, this community verification may include but would not be limited to, the methods and scope of assessment, the findings of baseline (including change over time to date), effects characterization, significance determination, and identification of appropriate mitigation and accommodation measures.
- 3. Indigenous land use will be a discrete Valued Component in all major project assessments, unless an individual Indigenous group identifies a preferred alternative Valued Component.**
  - a. The use of aspirational (rather than benign or non-directional) indicators that represent the desired future direction of the value is also recommended (e.g., a “harvestable surplus of moose”, rather than simply “moose”).

**4. Land use by one Indigenous group is not an acceptable proxy for land use by another Indigenous group.**

- a. Indigenous land use assessments must be conducted on a Nation-by-Nation basis.
- b. Land use data for each Indigenous group is the intellectual property of, and belongs to, that Indigenous group and its members. It cannot be re-used beyond the original scope and intent of the study without the expressed permission of the Indigenous group.

**5. Past Indigenous land use studies may not be adequate to measure Indigenous land use values today and into the future.**

Project-specific effects on location-specific values will not likely have been subject to any previous study.

- a. It is up to the affected Indigenous group to determine whether past Indigenous land use data remains representative in light of change over time and project-specific nature and location.
- b. If the affected Indigenous group determines that past Indigenous land use data is not adequate, up-to-date and appropriate to use in the project-specific assessment, the existing “*incidental data*” may be deemed insufficient as the Indigenous land use assessment’s foundation, and additional project-specific data collection may be required by the Indigenous group.

**6. The use of biophysical and access proxies as a replacement for full consideration of enabling factors for Indigenous land use is not acceptable.**

Using continued wildlife presence and lack of physical barriers to access as the only proxies for Indigenous “use-ability” of an area, may not be acceptable to the affected Indigenous group(s).

- a. Continued access into a project-affected area should not be conflated with the ability and willingness to use that project-affected area for Indigenous harvesting and cultural practices. In addition, sustained wildlife populations or other biophysical resources in the area should not be conflated with the ability and willingness to use that biophysical resource. The project effects, real and perceived, which may reduce the desirability of using the area and related resources must be considered from the perspective of the Indigenous group itself.
- b. It is important to note that even if regional wildlife reductions are not predicted, localized changes in wildlife abundance in preferred harvesting areas may adversely affect an Indigenous group or a family unit.

- c. Mitigations developed for biophysical components may not adequately or appropriately address impacts to Indigenous land use. Mitigations specific to Indigenous land use developed with the affected Indigenous groups are required to account for experiential/sensory changes specific to land and water users and alienation effects related to perceptions of contamination and or other stigmas, alteration of the visual landscape, reduced knowledge of navigability, and other impacts that can only be identified by Indigenous land users.

**7. Triangulation of information from a variety of sources is advisable, with data specifically coming from the Indigenous group as a mandatory input.**

- a. For example, Indigenous land use plans, Indigenous land use studies, Indigenous Knowledge, wildlife stock changes over time, Indigenous harvest volume data, and land use cover change data may all inform an Indigenous land use assessment.
- b. Engagement with Indigenous peoples should ask them not just how they use the land but how they want to see the land used in the future, and whether that can be reconciled with the proposed project.
- c. Calculation of the rate of change, total change, and causal factors, in land use cover and *fragmentation*<sup>17</sup> over an appropriate time period can help establish the cumulative effects context for Indigenous land use within which a project is proposed.
- d. Wherever possible, quantitative data should be sought to support qualitative inputs from Indigenous group members – this may include degree of involvement in traditional activities, harvesting success and cost per unit of effort data, and food security measurement.
- e. Wherever possible, *on-territory mapping* with Indigenous participants is encouraged as a way of collecting a deeper set of site-specific data. The sensory connection to an area, so critical to Indigenous land use and way of life, cannot be fully replicated or recalled outside of the location itself (e.g., in an office or community hall).

**8. Indigenous land use assessment should include identification by Indigenous group members of past uses, current uses, and desired future uses in the affected area, and assessment of effects on all these temporal scopes.**

- a. Past or historic use is use that is beyond the living memory of the Indigenous group member speaking about it, but which has been passed down through traditional knowledge and stories. This may be critical to

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<sup>17</sup> Non-exclusively, indicators such as kilometres per square kilometre (km/km<sup>2</sup>) of linear disturbance, reduction in Crown lands through privatization, water crossing density/km<sup>2</sup>, large intact landscapes, and forest cover and age types, may all be used to help establish this cumulative effects context.

defining the cumulative effects context for traditional use (see Principle 10 below).

- b. Current use should generally be defined as Indigenous land use activities that have occurred within the living memory of the member describing it, and should not be arbitrarily limited to a set number of years into the past.
- c. Desired future use information should be sought from Indigenous group members, as it is a legitimate set of aspirations against which the significance of project-specific and cumulative effects in the future can be gauged.

**9. Mapped Indigenous land use data must be recognized as only a portion of the land use data and experience of an Indigenous group.**

Too often in the past, this data has been incorrectly interpreted by Proponents and environmental assessment bodies as representing the full spectrum of use and experience of an Indigenous group.

- a. The results of any Indigenous land use study are limited by the number of participants, the time they have available to engage, and their ability and willingness to recollect experiences. They cannot be assumed to be fully representative of a Nation's (or even an individual's) total land use values in an area. This is one of the reasons why an absence of data does not signify an absence of use or value in the area.
- b. The area demarcated by mapped site-specific use values should be understood to be a small portion of the actual area required for the meaningful practice of the Indigenous group's way of life. Site-specific mapped values (e.g., cabins and kill-sites) reflect particular instances of use that anchor wider practices of culture, livelihood, and other Treaty and Aboriginal rights within a particular landscape. For example, a single moose kill-site may be mapped with a precise point, but that point does not capture the entire spectrum of related practices and values or the geographic scope of that harvesting activity.

**10. Understanding the cumulative effects context for Indigenous land use is critical.**

In many – indeed, most – cases, the amount of area available and resources accessible for Indigenous land use has declined precipitously between contact and the present. This may make any future change more significant than in an “undamaged” or “pristine” context.

- a. The cumulative effects assessment for Indigenous land use must follow the expectations of Principle 8 of the Coalition's Major Project Assessment Standard.

- b. Cumulative effects on the Indigenous land use Valued Component should be assessed at the level of the territory of each Indigenous group, unless a different scope is preferred by the individual Indigenous group, as it is the ability to practice traditional activities within the boundaries of that territory that have been subject to cumulative effects over time.
- c. The “go elsewhere” argument, which suggests that Indigenous land uses can be conducted somewhere else within the Indigenous group’s territory, is generally not advisable to use. Where it is used, it must be supported with corroborating evidence of the ability to meaningfully practice those activities elsewhere. The go elsewhere argument generally ignores vital intangible values associated with Indigenous land uses, and often ignores the dynamic nature of Indigenous land uses and Indigenous principles/ethics (e.g., rotating berry picking areas because of their transient appearance and also for reasons of sustainable harvest requiring large areas).

**11. Proper assessment of Indigenous land use includes examination of both use and alienation/loss of use.**

Alienation/loss of use analysis requires input from affected Indigenous groups about areas no longer harvested from for reasons beyond the general control of those members (e.g., perceived risk, loss of access, reduced wildlife stocks, contamination, increased competition, among many other potential factors).

- a. Good practice of alienation/loss of use study requires developing an understanding, based on inputs from Indigenous group members themselves, of a “zone of influence” around the proposed project area, within which Indigenous peoples are unlikely or less likely to conduct Indigenous land use activities in a future with the project.
- b. This zone of influence should be considered alongside existing alienation/loss of use at the territorial level when assessing total cumulative effects on Indigenous land use. See Principle 10 above.
- c. The subjective interpretation by Indigenous peoples of these zones of influence are legitimate effects characterization techniques and should not be discounted on the basis that they include both real and perceived risk factors. See Principle 14 below.

**12. Not all areas are of equal value for Indigenous land use – preferred areas and preferred resources may have higher value and, likewise, greater effect magnitude if altered.**

- a. Indigenous land use studies and assessments should make every effort to include identification of preferred areas and preferred resources.



- b. Effects characterization should give higher weight to impacts on these preferred areas and resources.
- c. It is important to remember that some areas of the land are highly valued by Indigenous peoples even when little used. An area's value may in some cases be in its untouched/undisturbed condition, which provides uncontaminated spaces both physically, energetically and spiritually. Indigenous land use assessments need to be sensitive to this possibility; lack of current use is not synonymous with lack of value of an area.

**13. Establishment of thresholds of required resources to support meaningful Indigenous land use practices may be appropriate in some, but not all, instances.**

- a. This may include calculation of required and desired wildlife, fish and vegetation stocks to harvest, and/or amount of un-impacted land available within which to meaningfully conduct Indigenous land use activities/cultural practices.
- b. Any thresholds must be determined in collaboration with affected Indigenous groups. However, such quantification may be unacceptable to some Indigenous communities or community members. If they are resistant to these methods they should not be adopted.
- c. These thresholds can be used in support of the determination of the significance of effects on Indigenous land use. However, they do not negate the potential for site-specific significance of impacts on a preferred use area, which may occur even if the overall threshold of required territorial resources are not breached. In other words, significant/unacceptable impacts can be localized; this does not lessen their import or magnitude.

**14. Indigenous land use is a human activity, with factors influencing it like risk perception, cultural values and norms, and subjective interpretations of the environment; all these factors are relevant to Indigenous land use assessment.**

- a. Exactly because they are subjective, culturally defined set of activities, risk perception and preferences of the Indigenous group members themselves must be central to assessment.
- b. Indigenous land use assessments should make every effort to not only map current use, but to focus in on the perceptions, priorities, estimated effects and necessary mitigations and accommodation measures as defined by the culture group members themselves.

**15. Determination of significance of project-specific and cumulative effects on Indigenous land use must meaningfully involve the affected Indigenous group.**

Significance is generally agreed to be a subjective, values-driven determination, so it is critical that the value holders themselves are involved.

- a. Given their subjective, culturally bound nature, determination of effects and their significance by someone outside the culture group is generally not acceptable.
- b. Indigenous people must be involved in definitions not only of what significance is, but how criteria boundaries are set (e.g., irreversible effects on Indigenous land use may occur with loss of use for only one human generation).

## Appendix 5 Example Questions

Example questions to guide considerations of adequacy of Indigenous land use assessment in a major project assessment. NOTE: answering these questions successfully does not supersede following the guidance above.

- Did the Proponent provide adequate time, information about the Project, and funding to the Indigenous group to conduct an appropriate Indigenous land use study and any other required studies to understand traditional use?
- Were all aspects of the Indigenous land use assessment subject to conduct and/or verification by the Indigenous group?
- Was Indigenous land use a discrete Valued Component in the major project Assessment?
- Were Indigenous land use assessments conducted on a Nation-by-Nation basis?
- Did the Proponent and the Crown recognize and support the Indigenous group's ownership and intellectual property rights over its Indigenous land use data?
- Were all project effects to Indigenous land use important to the Indigenous group considered? Were all preferred resources and preferred areas identified? Were these areas and resources weighted higher in effects characterization?
- Was every effort made to include perceptions, priorities, effects and necessary mitigations and accommodation measures as defined by the Indigenous group members themselves.
- Was the Indigenous group given the opportunity to identify required conditions necessary to support meaningful Indigenous land use practices and were these required conditions considered in the assessment?
- Were mitigations specific to Indigenous land use developed with the Indigenous group(s)? Do mitigations effectively address experiential or sensory disturbance effects to Indigenous land users?
- Were cumulative effects on the Indigenous land use Valued Component assessed at the level of territory for the Indigenous group?



## GLOSSARY OF TERMS



**Anthropogenic Factors:** Human-caused changes; effects caused directly or indirectly by humans.

**Biomedical Metrics:** Measurements of the human body's physical nature and function used to monitor health based in western medicine and biology.

**Biophysical Valued Components:** The biological or “living” and physical elements of the environment. Example: water, wildlife, plants. *Note: Indigenous worldviews place people within this environment, not separate from it.*

**Communicable Diseases:** An infectious/contagious disease transmissible from person to person, e.g. influenza.

**Community Cohesion:** The ability of a community to function and maintain togetherness rather than fall into conflict or lose their socio-cultural connections with each other.

**Country Food:** Another term for Indigenous harvested foods including game meats, birds, fish, and foraged plants.

**Cultural Landscape:** Large areas that are culturally known and connected to cultural use in ways passed down between generations; the lived landscape.

**Disaggregated Assessment:** An assessment where data is collected on a Nation-by-Nation basis rather than using general or broader datasets that include both Indigenous and Non-indigenous people and rather than assuming data from one Nation is representative of another.

**Fragmentation:** Breaking a landscape or area into smaller and or separate parts; loss of large intact landscapes and natural connections between areas.

**Health Determinants/Determinants of Health:** The broad range of personal, social, economic and environmental factors that determine individual and population health. These may differ between different sub-groups of people.

**Impact Equity:** Ensuring that those most adversely (negatively) impacted by a development receive commensurate benefit; the principle of balancing “who wins and who loses” from a Project.

**Incidental Data:** Data that was captured under a separate, non-Project specific study, used in a Project-specific environmental assessment, which may not be adequate to characterize values or effects in a Project-specific assessment. Primarily an issue in relation to Indigenous land use assessments.

**Indigenous Food Systems:** Systems of food cultivation, processing, storage, trade, and consumption specific to an Indigenous group including the environments that support those activities (land, air, water).

**Induced Effects:** “Knock on” or “spin off” effects caused as a result of the direct and indirect effects of a major Project; for example the spending of increased personal income caused by the direct and indirect economic effects, or increased exploration and other industrial activities after the building of a new road into a previously secluded area.

**Intergenerational Relations** – Relationships and connections between different generations (i.e., Elders and youth).

**Mixed economy:** An economic system whereby land users harvest from the land for both subsistence and money – e.g., selling of trapped fur, as well as engage in the wage economy.

**Net Gains:** Traditional environmental assessment was about avoiding significant (e.g., large and unmanageable) adverse effects on people and the environment. The “Net Gains” approach requires not merely this avoidance of large bad changes, but that the Proponent show their Project is likely overall to provide more benefits than bad changes.

**Non-Communicable Diseases:** A disease that is not transmissible directly from person to person, e.g., most cancers.

**On-Territory Mapping:** A structured process for the collection of Indigenous use and knowledge with community members while out on the land.

**Pathway Analysis:** The process of identifying pathways that link the Project’s physical works and activities to potential initial and ultimate effects on Valued Components.

**Reconciliation:** The development of respectful and just relationships between Indigenous People and Canada through the restoration of lands, economic self-sufficiency, and political jurisdiction.

**Resilience:** The ability to recover from a harm or a disturbance. A person, community, or environment with low resilience could be irreversibly damaged by a development. *It is important to remember that the mere presence of resilience in a community is not a “mitigation” against future impacts; developing resilience is not a costless transaction.*

**Risk Communication:** The two-way and multi-directional communications and engagement with affected Indigenous groups so that they can make informed decisions concerning their trust in a major Project and the land (especially in relation to concerns about contamination and safe access). Good risk communication includes the monitoring and assessing of outcomes on changes to knowledge, behaviour and practice.

**Risk Perception:** The complex and multifaceted judgement that people make about the characteristics and severity of a risk. Risk perception can be influenced by the social, religious, cultural, political and economic aspects associated with those at risk and

therefore varies among different population sub-groups. *It is important to remember that perceived risk leads to real adverse effect outcomes for Indigenous peoples in their connection to land, food security, and cultural continuity.*

**Secondary Data:** Data already collected and often analysed by someone else.

**Subsistence Economy:** A non-monetary economy which relies on natural resources to provide for basic needs, through means such as hunting and gathering.

**Temporal:** The scope of time considered in a major project assessment, which may include past, present and future changes.

**Vulnerability:** Often thought of as the opposite of resilience, it is the lessened ability to withstand the effects of a harm or disturbance due to adverse effects suffered in the pre-Project circumstance.

