

# Lakeland Métis Community

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COMMENTS ON THE DRAFT TAILORED IMPACT STATEMENT GUIDELINES FOR THE  
SUNCOR BASE MINE EXTENSION PROJECT

May 7, 2021

| Comment # | Section ID and Title                                | Sub-section; Page #                        | TISG Requirement(s)   | Comments and Recommendations   |
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| 01        | 3 Project Description                               | 3.4 Project Components and Activities p. 6 | Include maps of key project components, boundaries of the proposed site with geographic coordinates, major existing infrastructure, proponent lands, and leased properties or lands, adjacent resource lease boundaries, adjacent land uses and any important environmental features.   | LMC recommends that maps should also include any important cultural areas identified by Indigenous groups if not subject to confidentiality.   |
| 02        | 3 Project Description                               | 3.4 Project Components and Activities      | Gap in requirements for engagement on project activities and components.  | <p>LMC notes that a requirement in the Agency's template TISG was not included in this section: "Evidence that input from diverse subgroups was sought through engagement activities to identify potential effects or other concerns and issues must be provided. The information must be sufficient to provide an analysis regarding the project's impacts in the context of potential interaction between VCs" (IAAC 2020, TISG Template p.10)</p> <p>LMC requests that this statement be included in section 3.4.</p> |
| 03        | 3 Project Description                               | 3.5 Workforce Requirements p.7             | Gap concerning Indigenous workforce data  | LMC is concerned that direction is not included concerning information related to data on the Project's indigenous workforce. In addition, the methods used to make the estimation of where the workforce is likely to come from needs to be included in this section and defensible.  |
| 04        | 4 Project purpose, need and alternatives considered | 4.1 Purpose of the Project p. 8            | The Impact Statement must outline what is to be achieved by carrying out the project. The Impact Statement should broadly classify the project (e.g. bitumen extraction/processing) and indicate the target market (e.g. international, domestic, local, etc.), where applicable. The purpose of statement should include any objectives the proponent has in carrying out the project. | LMC understands that the Project's contribution to sustainability is a required consideration for impact assessment. Section 4.1 should include a requirement to describe how Project objectives support the Project's contribution to sustainability  |

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|           |   |  | The proponent is encouraged to consider the perspectives of participants (i.e. public, Indigenous groups, governments) in establishing objectives that relate to the intended effect of the project on society.                           |  |
| 05        | 4 Project purpose, need and alternatives considered | 4.4 Alternative means of carrying out the Project p.9  | The proponent must also indicate how the views and information provided by Indigenous peoples, the public and other participants were considered in establishing and applying the criteria for comparing the project's alternative means. | LMC is concerned that requirements are not strong enough in the TISG to ensure real indigenous participation in alternatives assessment. Requirements should further include a description of weighting applied to concerns identified by indigenous groups and that a full description of methods includes how indigenous groups were directly involved in Alternatives assessment. |
| 06        | 6 Description of engagement with Indigenous Groups  | 6 Description of engagement with Indigenous Groupsp.12 | Requirements for assessing each Indigenous group separately   | LMC is concerned that TISG language in section 6 is not strong enough regarding the need to assess each Indigenous group separately. A clear requirement needs to be included so that the Proponent cannot aggregate or misgroup Indigenous communities. The assessment of Social, Economic and health valued components must be disaggregated.                                      |
| 07        | 6 Description of Engagement with Indigenous Groups  | 6.1 Indigenous knowledge considerations p. 13          | Indigenous Knowledge beyond baseline information  | It is LMC's position that Indigenous Knowledge can inform every aspect of the impact assessment, guidance needs to be included concerning the need to involve Indigenous Knowledge holders in effects characterization and significance determination in addition to baseline data and characterization of the existing environment.   |
| 08        | 6 Description of Engagement with Indigenous Groups  | 6.1 Indigenous knowledge considerations p. 13          | Consent for Indigenous Knowledge - Indigenous knowledge that is not already publicly available should not be included without written consent from the Indigenous group, regardless of the source of the Indigenous knowledge             | LMC is concerned that as worded in the TISG, guidance would allow Proponents to interpret secondary sources for Indigenous Knowledge without having to seek permission or even verification with Knowledge holders. All traditional knowledge or indigenous knowledge should require the written permission of Indigenous groups regardless of whether it is on the public record.   |
| 09        | 6 Description of Engagement with Indigenous Groups  | 6.2 Record of Engagement p. 14                         | Gaps in Record of Engagement Requirements   | The requirements for record of engagement should include how community Covid-19 protocols and challenges were respected. The Proponent should also   |

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|           |                           |  |   | demonstrate that input was sought by Indigenous groups on the engagement record itself.  |
| 10        | 7 Assessment Methodology  | 7.1 Baseline methodology                     | include baseline data collected in a way that makes analyses, extrapolations and reliable predictions possible. The collated data should make it possible to carry out analyses to estimate pre-project baseline conditions, predict impacts, assess and compare post-project conditions, all at the scale of the project, and the local and regional assessment areas; | LMC recommends that explicit requirements for inclusion of Indigenous-led studies including Indigenous Knowledge and Land Use studies.   |
| 11        | 7 Assessment Methodology  | 7.2 Selection of valued components p. 18     | Gap in instructions for engaging with Indigenous groups about VCs.  | A statement must be added that the proponent must/is expected to communicate with potentially-affected communities, including relevant individuals and organizations to solicit input and incorporate their views regarding the value it placed on a VC  |
| 12        | 7 Assessment Methodology  | 7.3.1 Temporal boundaries                    | Proponent Proposed Development Scenarios need improvement   | Proponent proposed development scenarios need to be updated to reflect best practice for cumulative effects assessment. The TISG should ensure that development scenarios include capture of change over time. Future development scenarios should also include environmental stressors such as climate change and fires in addition to reasonably foreseeable projects. The TISG should also ensure that sub-threshold projects contributing to cumulative effects are also considered. |
| 13        | 7 Assessment Methodology  | 7.5 Mitigation and enhancement measures p.23 | Gap in requirements for adaptive measures   | Include a requirement to describe the methods proposed for the development of adaptive measures where effects are unanticipated or unforeseen.   |
| 14        | 8 Biophysical environment | 8 Biophysical environment                    | Gap in Cumulative Effects   | LMC is greatly concerned with cumulative effects in the Project area. LMC recommends that the TISG require collection of information on the Pre-development context and changes over time for all biophysical valued components  |

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| 15        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 41) | Describe the current levels of anthropogenic and natural disturbance affecting vegetation and other ecological communities, including a description and quantification of the current extent of habitat fragmentation, the extent of human access and use; and past and current fire suppression. | LMC is concerned about cumulative effects. To accommodate consideration of cumulative effects, habitat fragmentation according to pre-industrial levels of development should also be required for inclusion for comparison.<br><br>Indigenous Knowledge (IK) on historical activity and habitat fragmentation should be collected in partnership with Indigenous Groups and this needs to be required in the TISG. |
| 16        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 41) | Identify the biodiversity metrics, and biotic and abiotic indicators that are used to characterize the baseline vegetation biodiversity and discuss the rationale for their selection.  | LMC asserts that the TISG should require that biodiversity indicators should be identified and characterized in partnership with Indigenous Groups. In addition, impacts on biodiversity should inform the final scale of the Regional Study Area (RSA)   |
| 17        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 41) | Provide pre-project characterization of the shoreline, banks, current and future flood risk areas, and wetland catchment boundaries.  | LMC supports this requirement, however, the TISG should direct the Proponent to undertake this characterization in partnership with Indigenous groups like LMC.   |
| 18        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and                                   | Describe the natural disturbance regimes in the local and regional study areas, including context on how past projects and activities have affected those regimes (e.g. fire, floods, droughts, diseases, insects and other pests, etc.)  | The TISG should require that Indigenous Knowledge (IK) on historical activity and habitat fragmentation should be collected in partnership with Indigenous Groups to inform these descriptions.   |

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|           |                           | terrestrial environments (pg. 41)  | Provide pre-project characterization of... future flood risk areas  |  |
| 19        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 41) | Describe and quantify the extent of any weed species, other invasive species, and introduced species of concern within the project study areas.   | Indigenous Groups should be consulted on their knowledge on invasive species in the project area. Please include this as a requirement in the TISG.  |
| 20        | 8 Biophysical environment | 8.6. Baseline conditions; 8.6.2 Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 43) | Describe methods for clearing and maintaining the project right-of-way and other project components and the potential effects on the quality of drinking water sources, species, biodiversity and species of (cultural, traditional, or other) importance to Indigenous peoples.  | Culturally and environmentally important areas within the region should be mapped and identified in partnership with Indigenous Groups. This should include the ongoing characterization of value components (VCs) associated with the land. Any VCs identified should be included as essential components of the project area and monitoring plans. Please include this as a requirement in the TISG. |
| 21        | 8 Biophysical environment | 8.5. Groundwater and surface water; 8.5.1. Baseline conditions (pg. 35)  | Describe the hydrostratigraphic units (aquifers, aquitards, aquicludes) of the affected hydrogeological environment, illustrated using geological cross-sections, and provide a piezometric map showing heads and the direction of groundwater flow.  | The TISG must ensure that LSA and RSA areas for hydrogeology are developed in partnership with Indigenous Groups. Please provide clear direction on this in section 8.5.1.   |
| 22        | 8 Biophysical environment | 8.5. Groundwater and surface water; 8.5.1. Baseline conditions (pg. 35)  | TOR 3.2.1 [A] ... present regional and Project Area hydrogeology describing: ...<br>vi) potential hydraulic connection between bitumen production zones, deep disposal formations and other aquifers resulting from project operations,<br>vii) the characterization of formations chosen for deep well disposal, including | Project modelling should also consider historical anthropomorphic changes when presenting baseline conditions in order to gauge pre-industrial development conditions.   |

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|           |                           |   | <p>chemical compatibility and containment potential, injection capacity, hydrodynamic flow regime, and water quality assessments, and</p> <p>viii) the locations of major facilities associated with the Project including facilities for waste storage, treatment and disposal (e.g., deep well disposal) and describe site-specific aquifer and shallow groundwater conditions beneath these proposed facilities. Provide supporting geological information.</p>  |  |
| 23        | 8 Biophysical environment | 8.5. Groundwater and surface water; 8.5.1. Baseline conditions (pg. 33) | <p>Describe and illustrate on one or more topographic maps, at appropriate scales, the drainage basins in relation to key project components. On the map(s), identify all waterbodies and watercourses, including intermittent streams, wetlands, watershed and sub-watershed boundaries, and indicate the intended locations of crossings of water bodies or watercourses, if applicable, and any watercourse diversions.</p> <p>Indicate the type of watercourse impacted (e.g. lotic or lentic system, lake, river, pond, temporary or permanent stream); the size of the water bodies and watercourses, the width at the ordinary high water mark (OHWM) based on the following classes: large stream (over 20m in width), medium stream (between 5 and 20m in width), small permanent and intermittent streams less than 5m in width);</p> | The TISG must ensure that LSA and RSA areas for surface water are developed in partnership with Indigenous Groups. |

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| 24        | 8 Biophysical environment | 8.5. Groundwater and surface water;<br>8.5.1. Baseline conditions (pg. 34) | Provide a delineation and characterization of groundwater–surface water interactions, including an identification of groundwater-dependent ecosystems, wetlands, discharge and recharge areas.  | The TISG should ensure that surface water flow modelling includes pre-development phase models that are representative of conditions prior to industrial development.   |
| 25        | 8 Biophysical environment | 8.5. Groundwater and surface water;<br>8.5.1. Baseline conditions (pg. 34) | TISG 8.5.1 Provide baseline data for physiochemical parameters and relevant chemical constituents for surface water and groundwater quality. Water sample collection and analysis should use appropriately sensitive detection limits. Include additional data, as appropriate, to illustrate the seasonal and inter-annual variability in baseline water quality with sufficient years of baseline data to fully characterize natural variability, including possible changes due to groundwater–surface water interactions.<br><br>TISG 8.5.1 Describe baseline concentrations of elements or contaminants of concern in relation to applicable water quality guidelines. | Gathering of previously collected baseline data should include surface water data with collection dates as far back as possible. It is our understanding that the Proponent is proposing to use surface water data from 2004-2005 which represents a period of time where the region was already heavily impacted by anthropogenic activities. The earliest possible collection dates for surface water quality would be an important addition to baseline levels in order to better represent conditions prior to industrial development, and better capturing cumulative effects in the region. The TISG should therefore require the Proponent to include the earliest possible data in the baseline characterization of ground and surface water. |
| 26        | 8 Biophysical environment | 8.5. Groundwater and surface water;<br>8.5.2. Changes to groundwater       | Describe any changes in habitat structure (e.g. streambed, aquatic vegetation, benthic communities).<br><br>Discuss changes to watersheds, including alignment and condition of all streams, waterbodies, and wetlands, both ephemeral  | The TISG should also ensure that background assessments include tissue sampling for future comparisons for bioaccumulation assessments. If possible, previously collected tissue data should be included with dates going as far back as possible. Current tissue data collection represents conditions where the region is already heavily impacted by anthropogenic activities. The earliest  |



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|           |                           | and surface water (pg. 37)   | and permanent, including those created, removed or altered by the project (e.g. Beaver Creek and Poplar Creek Reservoirs).  | possible collection dates better represent conditions prior to industrial development, and better capturing cumulative effects in the region.  |
| 27        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 45) | Provide a list of all waterbodies and watercourses (permanent and intermittent) that may be directly or indirectly affected by the project. Group water bodies and watercourses by sub-watershed using the following criteria: the type of watercourse (e.g. lotic or lentic system, lake, river, pond, temporary or permanent stream); the size of the water bodies and watercourses, the width at the ordinary high water mark (OHWM) based on the following classes: large stream (over 20 m in width), medium stream (between 5 and 20 m in width), small permanent and intermittent streams less than 5 m in width)...   | Ensure that characterization of the aquatic habitats and resources within the LSA and are developed in partnership with Indigenous Groups, further the TISG should ensure that study areas for aquatic health and resources are developed in partnership with Indigenous groups. |
| 28        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 46) | Characterize the aquatic environment potentially affected by the project, including the extent of habitat disturbance (e.g. fragmentation). Present the information in the form of tables where appropriate, accompanied by maps and photos. For watercourses, it is recommended that characterization be performed on the basis of homogeneous section. The parameters to be measured include length of the section, width at the ordinary high water mark, depth, streamflow types and characteristics (velocity, turbidity, peak and low flows, etc.), substrate type (shoreline and bottom), aquatic (grass flat) and riparian vegetation, natural barriers (significant vertical drop, | Indigenous Knowledge (IK) on historical activity and habitat fragmentation for fish habitat should be collected in partnership with Indigenous Groups.   |

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|           |                           |  | waterfalls, subsurface flow over large distances, beaver dams, etc.), and other barriers (existing stream crossing structures, etc.) that impede or obstruct free passage of fish. The obstacles must be documented (size, condition, etc.) and their passability by fish must be assessed. For waterbodies, the parameters to be measured include bathymetry, maximum and average depths, seasonal water level fluctuations, substrate type (sediment), aquatic (submerged, floating and emergent) and riparian vegetation, and water quality (temperature and dissolved oxygen profile, turbidity, transparency, pH);   |   |
| 29        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 46) | Provide a description of potentially affected fish species and populations (as defined in subsection 2(1) of the <i>Fisheries Act</i> ) and other aquatic species (e.g. aquatic and benthic invertebrates) based on field surveys (standardized experimental fisheries) and available data (e.g. government and historical database, fisheries data, information from consultation and engagement activities, traditional knowledge of Indigenous peoples affected by the project, etc.). The data sources must be identified, including information on the surveys carried out (description of gear and catch methods, location of sampling stations, catch methods, date of catches, date of surveys, species surveyed, size and life cycle stage, catch per unit effort, etc.). It is recommended that the information be presented in the form of tables. | Indigenous people should be provided the opportunity to be partners in information collection and assessment sampling and monitoring of fish populations and fish biology. The TISG should require a description of the methodology employed for aquatic fieldwork including a description of any collaboration with Indigenous groups. |

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| 30        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 46) | Provide a characterization of potentially affected fish and other aquatic species, on the basis of relevant parameters including but not limited to: life history, food web interactions, population dynamics, movements and migratory patterns, seasonal and annual trends in abundance, sensitive habitats and periods in relation to the study areas, and predator-prey interactions, which are critical to identifying potential effects to population persistence and ecological processes; | Knowledge Holders (KD) and Indigenous Knowledge should be integrated into information on fish populations and fish biology.  |
| 31        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 46) | Provide the location and area of potential and confirmed fish habitat in or near the project area and describe how they are used by fish in terms of habitat function (species abundance and composition, spawning, nursery, growth, foraging, migration, cover habitat, thermal and winter refuge, etc.) and habitat suitability for species present. It is recommended that the information be presented on one or more maps at appropriate scales, and in the form of tables.                 | Knowledge Holders and Indigenous people should be partners in identifying important locations and habitats for fish populations.   |
| 32        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 46) | Characterize the baseline biodiversity for fish and include the rationale for the selection of biodiversity metrics and biotic and abiotic indicators, such as relative abundance of fish species in each habitat type, species richness and evenness from each habitat type, and biodiversity potential of each habitat type.   | Important wildlife species and areas within the region should be mapped and identified in partnership with Indigenous Groups. This should include the characterization of value components (VCs) associated with the land (e.g., areas for culturally important plant harvest, fishing, hunting, cultural use and critical wildlife areas). Indigenous Knowledge (IK) on historical and current biodiversity, species at risk/of concern and habitat |

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|           |                           |  |  | <p>fragmentation should be collected in partnership with Indigenous Groups. Any VCs identified should be included as essential components of the project area and monitoring plans. The TISG should include meaningful consultation with Indigenous knowledge holders in culturally appropriate methods to assess habitat fragmentation and cumulative effects on wildlife in the area.</p> <p>.</p> |
| 33        | 8 Biophysical environment | 8.7. Fish and fish habitat;<br>8.7.1. Baseline conditions (pg. 47) | <p>For each waterbody and watercourse potentially affected by the project, the following must be documented and considered in the determination of effects:</p> <ul style="list-style-type: none"> <li>- the geomorphological changes and their effects to hydrodynamic conditions and fish habitats (e.g. modification of substrates, dynamic imbalance, silting of spawning beds);</li> <li>- the modifications of hydrological and hydrometric conditions on fish habitat and on the fish species' life cycle activities (e.g. reproduction, rearing, feeding and growth, movement and migration, winter refuge);</li> <li>- potential effects to riparian areas that could affect aquatic biological resources and productivity taking into account any anticipated modifications to fish habitat (e.g. structure, cover);</li> <li>- potential fish mortality associated with noise caused by project activities in or near the aquatic environment, or by entrapment or entrainment at fish</li> </ul> | <p>For each waterbody/ watercourse, the TISG should require that Indigenous Knowledge (IK) should be integrated as an important part of site information and significance of the location.</p>   |

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|           |                      |                     | <p>intakes during water pumping or withdrawal activities (e.g. hydrostatic testing);</p> <ul style="list-style-type: none"> <li>- potential changes in light and noise levels that could result in increased stress, and chronic or acute effects to fish health;</li> <li>- the potential for introduction of deleterious substances (e.g. sediments, project-related contaminants) and aquatic invasive species into the aquatic environment frequented by fish;</li> <li>- changes to water quality and quantity (e.g. flow, temperature, acidification and eutrophication), both at the discharge point and in the receiving environment. Consideration should also be given to changes to surface water conditions resulting from changes to groundwater quality and quantity;</li> <li>- effects that may be caused by erosion and sedimentation in waterbodies;</li> <li>- changes in access to fishing grounds and resulting effects on fish populations and aquatic resources;</li> <li>- potential direct and indirect effects from habitat fragmentation</li> <li>- potential alteration of fish habitat and changes in fish use of habitat, including in the ability to access the habitat;</li> <li>- contaminant levels in harvested species and their prey, with a focus on traditional foods harvested by Indigenous peoples; and</li> </ul> |                              |

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|           |                           |   | - any other changes resulting from the project that may affect fish and fish habitat.  |  |
| 34        | 8 Biophysical environment | 8.7. Fish and fish habitat; Effects to fish and fish habitat (pg. 47)                     | The Impact Statement must: ...take into account and include an examination of the correlation between construction periods and sensitive periods for fish (e.g. reproduction), and any potential effects due to overlapping periods;   | Knowledge Holders (KD) and Indigenous people should be partners in identifying important times of year for fish and fish populations.  |
| 35        | 8 Biophysical environment | 8.6.1. Baseline conditions;<br>8.6.1.1. Vegetation and communities of importance (pg. 41) | The Impact Statement must: provide a description of the biodiversity, relative abundance and distribution of vegetation species and communities of ecological, economic or human importance within the local study area of the project, including: <ul style="list-style-type: none"> <li>- rare plant communities and communities of limited distribution;</li> <li>- old growth forests;</li> <li>- species listed as at risk, may be at risk, and sensitive in the <i>General Status of Alberta Wild Species</i>;</li> <li>- species listed in Schedule 1 of the <i>Species at Risk Act</i>;</li> <li>- species assessed by COSEWIC as extirpated, endangered, threatened or of special concern. It is recommended to refer to the most recent COSEWIC annual report for the list of assessed species posted on its website; and</li> <li>- species of importance to Indigenous peoples, including</li> </ul> | Knowledge Holders (KD) and Indigenous people should be partners in identifying important locations and terrestrial habitats. The TISG should ensure that LSA and RSA areas for terrestrial vegetation are developed in partnership with Indigenous Groups. |

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|           |                           |  | traditional, medicinal, and cultural purpose  |   |
| 36        | 8 Biophysical environment | 8.6.1. Baseline conditions;<br>8.6.1.1. Vegetation and communities of importance (pg. 41)    | TISG 8.6.1.1 Identify ecosystems that are sensitive or vulnerable to disturbance, such as acidification resulting from the deposition of atmospheric contaminants or the generation of acid rock drainage;  | The TISG should also require that sensitive and vulnerable ecosystems should be identified and characterized in partnership with Indigenous Groups.   |
| 37        | 8 Biophysical environment | 8.6.2. Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 42-43) | The Impact Statement must describe all the interactions between the project and vegetation and the terrestrial environments, including: <ul style="list-style-type: none"> <li>- a description and rationale for the key indicators used to assess project effects and the sensitivity of vegetation communities and terrestrial environments to disturbance;</li> <li>- provide an overall description of temporary and permanent changes related to landscape disturbance including habitat fragmentation, alteration of riparian areas, including buffers and setbacks, and project effects on areas of ground instability;</li> <li>- quantify the area of vegetation communities and terrestrial environments, that may be cleared or otherwise disturbed during all project phases and from both temporary and permanent project components, including a description of the type of disturbance;</li> </ul> | Knowledge Holders and Indigenous Knowledge should be integrated into information gathering on vegetation and terrestrial areas and impacts on forestry and plant harvesting. The TISG should require that opportunities be provided to Indigenous groups participate in the characterization of vegetation and terrestrial environments. Evidence of this to be included in description of methods. |

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|           |                           |   | <ul style="list-style-type: none"> <li>- describe the potential effects of the project on rare plant species and plant species at risk;</li> <li>- describe any hydrological or water flow changes, either permanent or temporary, that may alter moisture regimes or drainage conditions, and describe the effects on vegetation;</li> <li>- assess the quantity, marketability and location of any commercial timber to be removed during construction;</li> <li>- identify any other forest or vegetation resources that may be harvested by Indigenous peoples prior to and during the construction.</li> </ul> |   |
| <b>38</b> | 8 Biophysical environment | 8.6.2. Changes to vegetation and riparian, wetland, and terrestrial environments (pg. 43) | Describe effects onto the biodiversity of riparian, wetland and terrestrial environments, including effects from fragmentation, and changes to regional biodiversity.   | The TISG needs to require the inclusion of Indigenous Groups in the characterization of existing and Project contribution to habitat fragmentation.   |
| <b>39</b> | 8 Biophysical environment | 8.9 Wildlife and its habitat; 8.9.1 Baseline conditions                                   | Gaps in description of wildlife species   | LMC is concerned that the TISG only requires a description of the value of wildlife species for Indigenous groups for those species that are consumed or harvested. The cultural value and any other values identified by Indigenous groups should be sought and considered.  |
| <b>40</b> | 8 Biophysical environment | 8.9 Wildlife and its habitat; 8.9.2 Effects to Wildlife and its habitat                   | Requirement for: population level effects, including relative abundance, distribution, and mortality rates (see also section 3.7.2 of Annex I) that could be caused by project effects, particularly in the vicinity of wetland, lake and riparian habitats and on migratory corridors;   | LMC notes that in addition to population level effects - an equally important focus on regional or local sub-populations of wildlife should be required; especially those that frequent areas - for example - which are preferred harvesting areas for Indigenous peoples. Loss of access to adequate numbers (or healthy) animals in preferred harvesting areas may not equate to population |



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|           |                           |                                     |  | level high magnitude effects on a species, but may be high magnitude in terms of effects on Indigenous harvesting and rights.  |
| 41        | 9 Human Health conditions | 9.1 Baseline Conditions p.63        | Requirements for baseline health of Indigenous peoples | LMC notes that guidance on the determinants of health requires description of “the determinants of health selected <b>specifically for</b> Indigenous communities” this should be determinants of health selected <b>by</b> communities and not those for them. Further we note in this section that potential contaminants should also be assessed for medicines in addition to traditional foods and that indigenous knowledge must be included in the selection of reference sites for any health assessment. |
| 42        | 9 Human Health conditions | 9.2.2 Social determinants of health | Further guidance required for social determinants      | LMC is discourage at the discrepancy between breadth of guidance for biophysical determinants versus the small paragraph provided for social determinants. Proponents will require more guidance than what is provided.  |
| 43        | 10 Social conditions      | 10.3 Navigation p. 70               | Waterbodies of important to Indigenous Groups          | The TISG should include requirements beyond engagement with water-users. Include a requirement to identify waterways important to Indigenous groups and describe how groups were involved in effects assessment and mitigation.  |
| 44        | 11 Economic conditions    | 11.2 Effects to Economic conditions | Requirements for Indigenous economic conditions        | It should be made clear that economic conditions need to be assessed for each Indigenous group including the description of community specific barriers to accessing Project benefits (e.g. employment and procurement). Baseline data for each indigenous group should include collection of information characterizing rights-based or traditional economies.  |
| 45        | 12 Indigenous peoples     | 12 Indigenous peoples               | Requirements for Indigenous-led studies                | Overall requirements for this section must include a requirement for the Proponent to be responsive to and identify any requests for project-specific Indigenous-led studies, description of studies supported and provision of a detailed rationale where studies have not been supported.  |

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| 46        | 12 Indigenous peoples                | 12.1.1 Baseline conditions   | Information on Heritage resources   | Heritage resources important to Métis groups like LMC need to be included as examples in section 12.1.1 which includes wagon roads, trails, trail markers, rivers and waterways important for navigation, ancestral village and camp sites, and places of historic significance.  |
| 47        | 12 Indigenous peoples                | 12.2.2. Effects to current use of lands and resources for traditional purposes | Gaps in requirements for CULRTP   | The assessment of effects to current use of lands and resources for traditional purposes must include assessment of the existing cumulative context, changes in access to non-indigenous harvesters, changes in soundscapes in addition to changes in lighting, loss of teaching areas, and alienation from real or perceived threats of contamination. |
| 48        | 12 Indigenous peoples                | 12.3.2. Effects on Indigenous health, social and economic conditions           | -describe and quantify specific thresholds and document if different thresholds were considered for vulnerable Indigenous peoples, including by sex and age; provide rationale and justification if specific thresholds are not used;   | The Proponent should also document how thresholds were determined through engagement with Indigenous Groups with methods clearly described. This should also be applied to thresholds identified in section 12.4.   |
| 49        | 12 Indigenous peoples                | 12.4. Rights of Indigenous peoples<br>12.4.1. Baseline conditions p. 84        | -identify and describe the Treaty and Aboriginal rights of Indigenous peoples potentially affected by the project, including historic, regional, and community context. The description should include maps, when available, to illustrate the location of treaties, traditional territories and Metis harvesting | Maps should only be shared concerning rights upon the verification and written approval of Indigenous groups  |
| 50        | 21. Appendix 2 – Additional guidance | 21.2. Sources of baseline information  | Gaps in sources related to Indigenous Knowledge   | Indigenous Knowledge and Use Studies and Indigenous-led studies must be included in this section.   |
| 51        | Appendix 2 – Additional guidance     | 21.2. Sources of baseline information p. 112                                   | Gap in proof of Indigenous consent for use of public information  | The proponent should have to provide a detailed description of how any Indigenous Knowledge incorporated from secondary sources was verified and confirmed with the original Knowledge holders. This requirement should be made clear in this section of the TISG.  |

