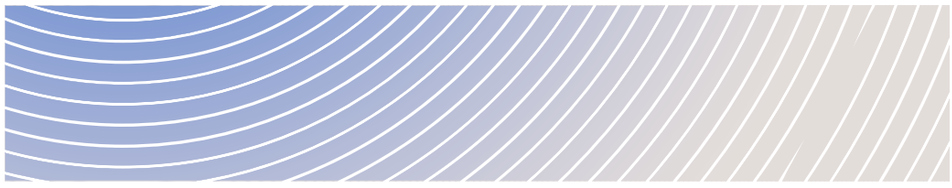
Project 6 – All-Season Road Linking Manto Sipi Cree Nation, Bunibonibee Cree Nation, and God's Lake First Nation



TECHNICAL REVIEW INFORMATION REQUESTS – ROUND 1, PACKAGE 2

November 15, 2021

Table of Contents: Information Requests by Topic

List of Acronyms and Short Forms

%HA	Percent highly annoyed
Agency	Impact Assessment Agency of Canada
ASR	All-season road
BCN	Bunibonibee Cree Nation
CEA	Cumulative effects assessment
CEAA 2012	*Canadian Environmental Assessment Act, 2012*
CO	Carbon monoxide
CO_2	Carbon dioxide
CH_4	Methane
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CRA fishery	Commercial, recreational, or Aboriginal fishery
DFO	Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
EIS	Environmental Impact Statement
EIS Guidelines	Environmental Impact Statement Guidelines
EMP	Environmental Management Plan
EPs	Environmental Protection Procedures
GHG	Greenhouse gas
GLFN	God's Lake First Nation
HRIA	Heritage Resource Impact Assessment
IR	Information Request
ISC	Indigenous Services Canada
LAA	Local Assessment Area
LCC	Land cover classification
MI	Manitoba Infrastructure
Minister	Minister of the Environment and Climate Change
MMF	Manitoba Metis Federation
MSCN	Manto Sipi Cree Nation
MSDS	Material Safety Data Sheets
MWQSOG	Manitoba Water Quality Standards, Objectives, and Guidelines
NO_x	Nitrous oxides
$PM_{2.5}$	Fine particulates smaller than 2.5 microns
PM_{10}	Respirable particulates less than 10 microns
Project	Project 6 – All-Season Road Linking Manto Sipi Cree Nation, Bunibonibee Cree Nation, and God's Lake First Nation
Project 1	Project 1 – All-Season Road from Berens River First Nation to Bloodvein First Nation
Project 2	Provincial Road 373 to Wasagamack
Project 4	Project 4 – All-Season Road Connecting Berens River to Poplar River First Nation
Project 5	Project 5 - Anderson Junction to Bunibonibee
RAA	Regional Assessment Area
ROW	Right-of-way
RTL	Registered Trapline District
SARA	*Species at Risk Act*
SDS	Safety Data Sheets
Section 35 Rights	Potential or established Aboriginal and Treaty rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982*
SO_x	Sulfur oxides
TK	Traditional Knowledge
TLEs	Treaty Land Entitlements
TSS	Total suspended solids
VCs	Valued components
VOCs	Volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WNO Accord	Agreement between the Government of Manitoba and Wabanong Nakaygum Okimawin (formerly East Side Round Table) First Nations

Information requests are detailed in the following format:

Reference IR#	Expert Dept. or group	EIS Guideline Reference	EIS Reference	Context and Rationale	The Proponent is Required to – Comments and potential Information Requests
Topic or Valued Component (e.g. Project Overview; Environmental Assessment Methodology; Fish Habitat; etc.)					
Information Request (IR) Round 1: IR1-##	Nation or department Name e.g. Impact Assessment Agency of Canada	Reference the section(s) of the EIS Guidelines that relate to your comment, concern, or information request. e.g. Part 2, Section 7.1.5 Fish and Fish Habitat	Reference the section(s) of the EIS that speak to your comment, concern, or information request.	Identify what the EIS Guidelines require and/or the link to the *Canadian Environmental Assessment Act*, *2012* (section 5 or section 19). Briefly identify what the EIS presents and the information gap, inconsistency, or challenge. Explain why filling that information gap is necessary to understanding potential adverse effects to areas of federal jurisdiction or impacts to rights.	Describe the information required. Focus on the essential information, explanation, or justification required.

Information Requests Round 1, Package 2 (IR1-##):

Reference IR#	Expert Dept. or group	EIS Guideline Reference	EIS Reference	Context and Rationale	The Proponent is Required to – Comments and potential Information Requests
Editorial					
IR1-17	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Chapter 1, Section 1.3 EIS Chapter 6, Section 6.2, 6.3, 6.5, and 6.5.1.1.2 EIS Appendix D-1, Section 1.0	EIS Guidelines Part 2, Section 6.2, 6.3, and 6.5	The Environmental Impact Statement Guidelines (EIS Guidelines) require the proponent to describe the predicted changes to the environment and valued components (VCs) as a result of the Project 6 – All-Season Road Linking Manto Sipi Cree Nation, Bunibonibee Cree Nation, and God's Lake First Nation (the Project) during all Project phases, and any residual effects to VCs following the implementation of mitigation measures. Predicted changes and residual effects are to be described in terms of their magnitude, geographic extent, timing, duration, frequency, reversibility, and ecological and social context. The significance of any residual effects must also be characterized. The EIS indicates that the Project alignment consists of a total 141 kilometres of all-season road (ASR) on a new right of way. However, Appendix D-1 of the EIS describes the Project length as 138 kilometres. The EIS also notes that the environmental effects of the Project were identified from a review of environmental assessment reports conducted on other ASR projects east of Lake Winnipeg and using professional judgement. It is unclear whose professional judgement is being relied upon or the underlying assumptions and expertise this professional judgement is based upon.	a) Clarify whether the proposed ASR is anticipated to be 138 kilometres or 141 kilometres in length. If the accuracy and applicability of the assessments presented may be compromised by this discrepancy, revise all assessments presented in the EIS to reflect the actual road length. b) Clarify whose professional judgement was relied upon to identify and assess potential Project effects. Discuss underlying assumptions and expertise associated with the professional judgement that was applied.
IR1-18	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 1, Section 4.4	EIS Chapter 4, Appendix 4-2, Maps 1 and 2	The EIS Guidelines require the proponent to include charts, diagrams, tables, maps, and photographs, where appropriate, to clarify the text in the Environmental Impact Statement (EIS). Some of the maps and figures provided in the EIS are missing labels. For instance, Manto Sipi Cree Nation (MSCN) noted that their community name is missing from Maps 1 and 2 of Appendix 4-2. All maps and figures provided in the EIS must be labelled correctly with all relevant features clearly indicated to ensure that the information presented is clear and unambiguous.	a) Review and revise the maps and figures presented in the EIS to ensure that all relevant features are clearly labelled.

Baseline					
IR1-19	Manitoba Metis Federation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.1	EIS Chapter 3, Section 3.5	The EIS Guidelines require the proponent to present baseline information in sufficient detail to enable the identification of how the Project could affect VCs and an analysis of those effects. The EIS indicates that construction of the Project is not anticipated to begin until 2030. Several Indigenous groups have expressed concerns that baseline data collected in support of the environmental assessment for the Project may become outdated by the time construction is expected to begin. As such, it may be necessary to conduct pre-construction surveys in advance of construction to verify that baseline data are still accurate and to ensure that mitigation measures are still appropriate to adequately mitigate potential effects to VCs. It is also unclear what mitigation/contingency measures will be implemented to protect species at risk that may be added to Schedule 1 of the *Species at Risk Act* (SARA) by 2030. MSCN also noted that they are concerned with the minimal amount of field data that were collected for all VCs and that desktop study data used may be outdated and/or not applicable to the Project footprint, Local Assessment Area (LAA), or Regional Assessment Area (RAA). For instance, the EIS notes that land cover classification (LCC) data from 2000 was used to support the description of baseline data for the Botanical and Vegetation Resource Survey (i.e. Appendix B-1) and that Boreal Avian Modelling used LCC data from 2005. MSCN expressed concerns that these data may be outdated. Supplementary information is required to understand how the proponent will ensure the accuracy of information presented in the EIS, verify predictions with respect to potential effects to VCs, and ensure that potential Project effects to VCs are appropriately mitigated.	a) Describe how MI will ensure that the baseline data, effects assessments, and proposed mitigation measures presented in the EIS are valid prior to construction of the Project, given that construction is not expected to begin until 2030 and data may be outdated. b) Describe how the effects assessment and mitigation/contingency measures will be updated to consider species at risk that may be added to Schedule 1 of SARA at the time of construction. c) If updated data are available, including LCC data, verify and provide a rationale that the data included in the EIS are still valid. If the data presented in the EIS is no longer valid, provide updated data for the area of the Project, including a table describing the area of each vegetation type and a figure illustrating the land cover within the Project footprint, LAA, and RAA. i. If new data are provided, revise the description of baseline data for vegetation and habitat and the assessment of potential Project effects[1], the residual effects assessment, and the cumulative effects assessment for all applicable VCs to include this new information.
IR1-20	Impact Assessment Agency of Canada	EIS Chapter 5, Table 5.8	EIS Guidelines Part 1, Section 4.5	The EIS Guidelines require the proponent to provide a summary of the engagement conducted with Indigenous groups, a summary of the issues raised, and the proponent's responses. In response to concerns raised by Indigenous groups, the EIS indicates that parts of the EIS may need to be updated prior to beginning construction.	a) Identify and explain which aspects/sections of the EIS may need to be updated prior to the beginning of construction and discuss the potential implications to the conclusions presented in the EIS. i. If these updates will be made to sections of the EIS describing potential Project effects to VCs,

[1] The "assessment of potential Project effects" refers to the assessment of potential Project effects prior to the implementation of mitigation measures.

				No further detail is provided regarding which aspects of the EIS may need to be updated. Should updates be required, for instance, to the assessment of potential Project effects or to proposed mitigation measures, the Impact Assessment Agency of Canada (the Agency), would need to be made aware of these changes to factor them into the Environmental Assessment Report and potential conditions. Clarity on this topic is required to understand whether the information presented in the EIS reflects the most accurate and up to date data available to the proponent and to potentially support the characterization of potential Project effects.	mitigation measures, residual effects, cumulative effects, or follow-up and monitoring plan(s), clearly describe the potential changes to the EIS and their implications to the conclusions presented in the EIS.
IR1-21	Manto Sipi Cree Nation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments	EIS Guidelines Part 1, Section 4.4	EIS Chapter 4, Section 4.3.3 EIS Appendix A to D EIS Appendix B-2, Map 2 and 8a to 8c	The EIS Guidelines require the proponent to describe detailed studies, including all relevant supporting data and methodologies that were conducted for the Project. The EIS generally describes the methodologies employed during desktop and field investigations for species at risk, species of importance to Indigenous peoples, migratory birds, vegetation, and the aquatic environment. Minimal detail is provided regarding the methods used, the survey locations chosen, how representative literature or desktop data were selected, or justification for why certain methodologies were chosen over others. Indigenous groups have raised concerns that the lack of detailed information limits their ability to assess the appropriateness of the study methodologies used. Indigenous groups have also expressed concerns regarding the minimal amount of information provided regarding the methodologies used to collect Indigenous traditional knowledge and whether permission was obtained from Indigenous groups to present certain information in the EIS publicly (e.g. Appendix B-2, Map 8a to 8c). Supplementary information is required to support the characterization of the methodologies used in baseline studies and to determine whether the methods used were adequate to provide an accurate representation of the baseline environment of the Project footprint, LAA, and RAA.	a) Provide a detailed description of the methodologies employed during desktop and field investigations to collect baseline data for species at risk, species of importance to Indigenous peoples, migratory birds, vegetation, and the aquatic environment. This description must address: i. how and why literature cited in the EIS to support the description of baseline data were chosen and determined to be representative of current conditions (e.g. when the data were collected, where, for which species, etc.); and ii. why the methodologies used were chosen over other alternatives that may have been as or more effective. This description may include reference to other studies conducted using the same methodology. b) Describe in detail the methods used to collect Indigenous traditional knowledge, the standards adhered to, and how these data were used to inform the description of the baseline environment of the Project footprint, LAA, and RAA. Indicate whether permission was sought and obtained to present the information contained in Maps 8a to 8c publicly. c) Provide a rationale for why more field studies were not conducted to collect baseline data for all VCs. For the desktop data referenced in the EIS that were collected in

					areas outside of the RAA, provide a rationale for how these data may be applicable to the area of the Project. d) If additional studies or additional data are deemed necessary in response to c), provide the results of these studies and/or the additional data to inform the Environmental Assessment Report.
IR1-22	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 1, Section 4.4	EIS Chapter 4, Section 4.3.3	The EIS Guidelines require the proponent to describe the spatial boundaries, including local and regional study areas, of each VC to be used in assessing the potential adverse effects of the project and provide a rationale for each boundary. It is unclear why or how the proponent chose the size of the LAA and RAA for certain VCs, particularly wildlife. MSCN noted that other wildlife species, such as wolves and bears, can have very large home ranges that may not be captured by the LAA selected for non-ungulate wildlife species. MSCN also noted that it is unclear why the LAA for wildlife species other than ungulates does not include the reserve lands of MSCN, Bunibonibee Cree Nation (BCN), and God's Lake First Nation (GLFN), or why the Indigenous RAA does not capture some of the most frequently used areas by MSCN for traditional activities, specifically areas to the east and northeast of the current RAA. Supplementary information is required to support the characterization of the methodologies used in baseline studies and to determine whether the methods used were adequate to provide an accurate representation of the baseline environment of the Project footprint, LAA, and RAA and to assess potential effects to VC's and impacts to Indigenous groups.	a) Provide a rationale for why and how MI chose the extent of the each of the LAAs and RAAs for the Project. b) Further address: i. why the LAA for wildlife other than ungulates was set at a smaller radius than the LAA for moose and caribou and why the LAA for non-ungulate wildlife species does not include the reserve lands of MSCN, BCN, and GLFN; and ii. why important areas for current traditional use by MSCN and potentially other Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines were not included in the Indigenous RAA. If this exclusion was an oversight, revise the extent of the Indigenous RAA and revise all effects assessments presented in the EIS that were based on this study area.
IR1-23	Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical	EIS Guidelines Part 1, Section 3.2.2 EIS Guidelines Part 2, Section 5.1 and 6.1.9	EIS Chapter 6, Section 6.1.4.1.6 and 6.1.4.5 EIS Chapter 6, Table 6.11 EIS Appendix B-2, Section 4.6.1	The EIS Guidelines require the proponent to identify baseline information regarding species of fish, wildlife, birds, plants, or other natural resources of importance for traditional use by Indigenous peoples. The EIS Guidelines also require the proponent to reflect in the EIS the knowledge acquired through engagement with Indigenous groups. With respect to the selection of VCs, the EIS indicates that a preliminary list of VCs was presented at community meetings to verify their appropriateness and to revise the VC list, as needed, based on input from community members. It is unclear whether all Indigenous communities	a) Indicate whether Manitoba Infrastructure (MI) engaged with or made attempts to engage with all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines to identify plant and wildlife species of importance and to verify and/or revise the preliminary list of VCs identified by MI. i. If so, describe how MI considered and incorporated input from these groups into the description of baseline information, selection of Project study areas, selection of VCs, and the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous

	Review Comments		EIS Appendix D-1, Section 2.0	listed in Part 2, Section 5.1 of the EIS Guidelines were invited to participate in these meetings to verify the list of VCs. The EIS indicates that plant and wildlife species of importance to Indigenous peoples were identified through traditional knowledge studies, workshops, and community discussions with MSCN, BCN, and GLFN. It is unclear whether the proponent engaged with or made attempts to engage with all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines, other than BCN, MSCN, and GLFN, or whether species of importance and traditional use areas of these groups were considered in the EIS and the selection of study areas. MSCN also expressed concerns regarding the methodology of the trapper program used to collect information for the Project, noting that no traplines held by MSCN were used to collect data and no explanation for this omission is provided. Table 6.11 of the EIS presents a list of mammal species of importance that were observed by GLFN, MSCN, and BCN. No information is provided regarding the exact or approximate locations where these individuals were observed. As some potential effects of the Project are dependent upon wildlife species' proximity to the Project, this information is required to understand and assess potential Project effects to wildlife species of importance to Indigenous peoples. Supplementary information is required to support the proponent's characterization of potential Project effects to species of importance to Indigenous peoples for traditional purposes and how knowledge acquired through engagement with Indigenous groups is reflected in the EIS.	peoples presented in the EIS. If this information was not included and considered in the EIS, revise all relevant sections of the EIS, including the selection of study areas and VCs, to include this information. ii. If not, describe how and when MI plans to engage with each of the communities listed in Part 2, Section 5.1 of the EIS Guidelines to collect the information described and how MI will incorporate this information into the EIS. If MI does not plan to engage with these groups, provide a clear rationale for this decision. b) Provide a rationale for why traplines of MSCN were not included in the scope of the trapper program. Clarify whether trappers from MSCN were interviewed and/or involved in data collection related to the trapper program. i. If trappers from MSCN were interviewed and/or involved in data collection related to trapper program, revise the information and assessments presented in the EIS to reflect this. c) For the wildlife species listed in Table 6.11, indicate the exact or approximate location in which Indigenous community members observed these individuals.
IR1-24	Indigenous Services Canada – Project 6 Technical Review Comments God's Lake First Nation – June 5, 2019 Meeting with the Agency	EIS Chapter 5, Section 5.2.4 and 5.4.1.1 EIS Chapter 5, Appendix 5-12 Chapter 6, Section 6.1.9.2 and 6.1.9.3 Chapter 6, Figure 6-16	EIS Guidelines Part 2, Section 5.1	The EIS Guidelines list Indigenous groups with which the proponent is expected to strive towards developing a productive and constructive relationship in order to support information gathering and the effects assessment. The EIS indicates that the boundaries of the traditional territories of MSCN, GLFN, and BCN are shown in Figure 6-16. It is not apparent from Figure 6-16 which areas constitute the traditional territories of these groups. Further, the asserted traditional territories of other Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines are not described in the EIS or presented in a figure.	a) Provide figures showing the extent of the asserted traditional territory of each Indigenous group listed in Part 2, Section 5.1 of the EIS Guidelines in a manner and at a spatial scale that clearly shows the boundaries of each groups' asserted traditional territory. Clearly describe engagement activities that have taken place with Indigenous groups to validate MI's understanding of the extent of each group's asserted traditional territory. If these engagement activities have not taken place, describe how and when MI will conduct these activities.

	God's Lake First Nation – Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments			The EIS indicates that the communities of Norway House Cree Nation, Pimicikamak Okimawin, Garden Hill First Nation, Red Sucker Lake First Nation, St. Theresa Point First Nation, and Wasagamack First Nation are not expected to be adversely affected by the Project as none of these communities have reserve lands or Treaty Land Entitlements (TLEs) within the Indigenous RAA and the Indigenous RAA is not within the Resource Management Areas or Registered Trapline Districts (RTLs) of these communities. The Agency notes that the First Nations communities listed above have Aboriginal and Treaty rights in areas outside of the boundaries of reserve lands/TLEs and may practice traditional use activities within the Project footprint, LAA, and/or RAA. Additionally, RTLs may not be representative of Indigenous groups' asserted traditional territory. GLFN notes that RTL boundaries were created by the Government of Manitoba for management purposes, not by Indigenous communities themselves, and Indigenous traditional territory and traditional use areas do not have prescribed boundaries. Pimicikamak Okimawin indicated that their asserted traditional territory extends into the Indigenous RAA and MSCN noted that the conceptual boundaries of their ancestral lands are greater than the boundaries indicated in the EIS. Further, GLFN noted that although there may be limited activity on the land in certain areas or at certain times, the land is considered sacred and a lack of current traditional use of an area or resource should not be considered an indication that GLFN does not have an interest in the land or resources in that area. The EIS indicates that the Government of Manitoba and the Manitoba Metis Federation (MMF) signed a Métis Harvesting Agreement, which designated a Métis Natural Resource Harvesting Zone; the Indigenous RAA for the proposed Project is located outside of this designated zone. The MMF asserts that their members exercise their Aboriginal rights within the Project footprint, LAA, and RAA. Further, the Métis Harvesting Agreement sets out a process by which research may be undertaken in areas of Manitoba outside of the Métis Natural Resource Harvesting Zone. It is unclear whether research has been undertaken or is in the process of being undertaken with respect to Métis current use of lands and resources for traditional purposes, which may inform the assessment of potential Project effects to Métis peoples. Additionally, it is unclear whether the traditional	i. If MI has made reasonable efforts to engage with Indigenous groups to collect this information but these efforts have been unsuccessful, provide a record of all attempts to engage with Indigenous groups on this topic. b) Based on the extent of each Indigenous group's asserted traditional territory, the results of the engagement activities referred to in a), and MI's understanding of the extent of anticipated project effects, revise the effects assessments presented in the EIS for all Indigenous groups whose traditional territory differs from what was originally presented in the EIS. i. If, after the effects assessments presented in the EIS are revised to include the information referred to in a), MI does not anticipate effects to some or all Indigenous communities listed in Part 2, Section 5.1 of the EIS Guidelines, verify this conclusion with the Indigenous groups in question. If these Indigenous groups indicate that there will be project effects to their communities, present the views and assessment(s) of effects of these Indigenous groups in the EIS alongside MI's assessment of effects. ii. If adverse effects are identified that were not previously considered in the EIS, describe proposed mitigation or accommodation measures that will be implemented to address these effects. c) Indicate whether any data are available or if research has been or is planned to be undertaken with respect to Métis current use of lands and resources for traditional purposes within or near the Project footprint, LAA, or RAA. If MI is in possession or has access to the results of any such research/data (e.g. from the MMF) as it relates to the Project and its potential effects, this information must be considered in the EIS.

				territories of other Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines were considered in delineating the boundaries of the Indigenous RAA. Supplementary information is required to support the proponent's characterization of potential Project effects to Indigenous peoples, including all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines. **See Annex I for related advice.**	
IR1-25	Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1, 6.1.9, and 6.3.4	EIS Chapter 6, Section 6.1.9.2 and 6.1.9.3	The EIS Guidelines require the proponent to describe baseline information and potential Project effects to the health and socioeconomic conditions of Indigenous peoples. The EIS does not present baseline information on the health and socioeconomic conditions of Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines other than MSCN, BCN, and GLFN. As noted above (see IR1-24) Indigenous groups other than MSCN, BCN, and GLFN may use lands and resources within the Project footprint, LAA, and RAA for traditional purposes. As such, the Project may result in adverse effects to the health and socioeconomic conditions of members of these communities; baseline data are required to understand the context and potential significance of these effects. The EIS also does not describe whether engagement activities were conducted with MSCN, BCN, and GLFN to verify the accuracy of the baseline data presented with regard to the health and socioeconomic conditions of their communities. Supplementary information is required to support the proponent's characterization of potential Project effects to the health and socioeconomic conditions of Indigenous peoples.	a) Should Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines other than MSCN, BCN, and GLFN also use the Project footprint, LAA, or RAA for traditional purposes, describe the baseline health and socioeconomic conditions for these Indigenous groups. b) Describe engagement activities that have taken place with GLFN, BCN, and MSCN to verify the accuracy of the baseline data presented on the health and socioeconomic conditions of their communities. If these engagement activities have not taken place, provide a rationale for this or describe when and how these engagement activities will occur.
Federal Lands					
IR1-26	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3.5	EIS Chapter 1, Section 1.2.2 EIS Chapter 3, Section 3.2.4, 3.3.8, and 3.4.1.7	The EIS Guidelines require the proponent to describe any potential environmental effects on federal lands as a result of the Project. The EIS indicates that no federal lands will be used for carrying out the Project. However, the EIS also describes how wastewater, domestic waste, and solid waste from work camps and construction sites will be treated/disposed of at existing wastewater treatment plants and landfills located on the BCN, MSCN, and GLFN reserves or treaty land entitlement	a) Describe all Project components or activities, maintenance facilities, and waste disposal/treatment that will be located or occur on federal lands, specifically Indigenous reserve lands or treaty land entitlement areas. i. Should use of the existing on-reserve access road on BCN's reserve be required, indicate whether any upgrades to this road will be required and who will be responsible for these upgrades.

			EIS Chapter 5, Table 5.10 EIS Chapter 6, Section 6.1.9.1.2.6 EIS Chapter 6, Figure 6-18 to 6-20 EIS Appendix D-1, Section 3.7.3	areas, which are considered federal lands. The EIS also describes how existing winter road maintenance yards located on the reserves of BCN, MSCN, and GLFN may be repurposed for maintenance of the ASR. The Agency notes that transportation of waste materials and storage/repair of maintenance equipment associated with the Project have the potential to result in adverse effects to federal lands from, for example, combustion emissions, dust and particulate matter generation, vibrations, noise, and accidental spills from equipment or of waste materials. As such, Project activities and components located on federal lands may result in adverse environmental effects to VCs including caribou, a species federally listed as "Threatened" under the *Species at Risk Act* (SARA) and observed migrating through reserve lands by members of BCN and MSCN. The EIS describes how the ASR will connect to an existing on-reserve access road at the BCN reserve boundary and that construction is anticipated to begin at this boundary and extend eastward. It is unclear whether use of BCN's on-reserve access road will be required for construction and operation of the Project. As no on-reserve community access roads currently exist on the MSCN and GLFN reserves to connect the Project to community road networks, it is unclear how Manitoba Infrastructure (MI) plans to access facilities located on these reserves. Supplementary information is required to support the characterization of potential Project effects to federal lands, species at risk, and Indigenous peoples.	b) For all Project activities and components to be located on reserve lands and/or treaty land entitlement areas: i. describe potential environmental effects to VCs, mitigation measures to address those effects, and any residual adverse effects; ii. assess potential impacts to Aboriginal or Treaty rights anticipated from on-reserve Project components/activities; and iii. confirm with the applicable Indigenous communities and Indigenous Services Canada (ISC): • the compatibility of the Project activity/component with community land use plans, • whether *Indian Act* permits under section 58(4) of the *Indian Act* or under the *Indian Mining Regulations*, *Indian Timber Harvesting Regulations,* or *Indian Reserve Waste Disposal Regulations* are required, and • requirements of all other applicable legislation such as the *Canadian Environmental Protection Act, 1999*. c) Update the list of regulatory requirements and mitigation commitments in the EIS as needed. d) If construction of an on-reserve community access road is required to support Project activities and it will be constructed by MI, describe both the long-term maintenance plan and the potential effects to VCs. If MI is not the responsible party, identify the authority and indicate how MI will coordinate with that party and what implications are for the Project, should the on-reserve community access road not proceed. e) Present revised effects assessments, including residual and cumulative effects assessments, for all VCs, including federal lands, to include all on-reserve Project components and activities and any associated adverse effects.

					f) Present a revised assessment of effects associated with potential accidents and malfunctions, including worst case scenarios, to consider Project components and activities on federal lands. g) Describe any areas of uncertainty, including those identified by Indigenous groups, and proposed follow-up and monitoring activities that will occur with respect to Project components and activities on federal lands.
Surface Water Quality					
IR1-27	Health Canada and Environment and Climate Change Canada – Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments God's Lake First Nation – June 5, 2019 Meeting with the Agency Manto Sipi Cree Nation – August	EIS Guidelines Part 2, Section 6.2.2, 6.6.1, and 8.0	EIS Chapter 6, Section 6.3.1.1 and 6.4.4 EIS Chapter 6, Section 6.3.4, 6.5.4, and 6.5.6.1	The EIS Guidelines require the proponent to describe potential changes to surface water quality, any effects associated with potential accidental spills, and the follow-up and monitoring program(s) that will be implemented to verify predictions and the effectiveness of mitigation measures. The EIS indicates that any effects due to spills occurring in surface water would be limited to the Project footprint as they would be contained and remediated. It is unclear how MI will ensure that they will be informed/made aware of all spills that occur on the Project footprint throughout the life of the Project to ensure that spills are contained and remediated immediately, thereby preventing migration of spilled materials. The EIS indicates that the Project may result in adverse effects to surface water quality and fish from explosives, specifically related to the potential release of nitrates into waterbodies/watercourses. The EIS does not describe mitigation measures that will be implemented to address the introduction of explosives into nearby waterbodies/watercourses. It is also unclear whether potential adverse effects to the health of Indigenous peoples resulting from the potential introduction of nitrates and nitrites into drinking water sources or to downstream receiving waterbodies were considered in the assessment of potential Project effects. For instance, the addition of nitrates into lakes, ponds, and wetlands can result in eutrophication and/or increases in the severity and	a) Describe how MI will monitor for spills of harmful substances within the Project footprint during all phases of the Project, and the mitigation measures that will be implemented, specifically in the event of a spill in or near fish-bearing watercourses/waterbodies, tributaries to fish bearing watercourses/waterbodies, and sensitive terrestrial habitats (e.g. calving grounds, nesting sites, gathering areas, etc.). Describe the following: i. How MI will be informed of all spills and the standard response time for spill response crews. Compare response time to typical migration rates for contaminants that may be accidentally spilled from the Project; and ii. describe the potential effects to VCs from unreported spills and instances where response time exceeds the migration rate of contaminants to key receptors[2]. Revise the assessments of potential Project effects for all VCs, including the residual and cumulative effects assessments, to include any potential effects identified. Ensure that potential effects to God's Lake and Semens Lake are described including connected wetlands and watercourses.

[2] Key receptors must include: fish and fish habitat; migratory birds and their habitat; species at risk and their habitat; human health receptors (e.g. traplines, residences, cabins, camps, First Nations reserve lands); drinking water sources; wetlands and other waterbodies; species of importance to Indigenous peoples and their habitat; places where fish, wildlife, birds, plants, or other natural resources are harvested by Indigenous peoples, including places that are preferred; and ecologically sensitive sites of VCs (e.g. spawning areas, nesting areas, calving grounds, hibernacula).

	22, 2019 Meeting with the Agency Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency			extent of algal blooms. Maintaining the quality of water within lakes, ponds, and wetlands used for drinking water and traditional purposes within the Project footprint, LAA, and RAA, including God's Lake and Semens Lake, was noted as a priority for BCN and MSCN. Supplementary information is required to support the characterization of potential Project effects to surface water quality and related VCs. This information is also required to determine whether further mitigation may be required to address potential adverse effects to surface water quality.	b) Describe measures that will be implemented to mitigate the introduction of explosives into nearby waterbodies/watercourses and to mitigate adverse Project effects to surface water quality, including the quality of drinking water sources and downstream receiving waterbodies, should explosives or blasting residues be introduced into waterbodies/watercourses. c) Describe follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation and response measures, and monitor for any unanticipated effects
IR1-28		EIS Guidelines Part 2, Section 5.1, 6.2, 6.3, and 6.4	EIS Appendix C-2, Section 4.2.2.4 and 4.3.1	The EIS Guidelines require the proponent to describe predicted changes to the physical environment and VCs as a result of the Project, including changes to: groundwater and surface water; riparian, wetland, and terrestrial environments; fish and fish habitat; migratory birds; species at risk; and Indigenous peoples. The EIS Guidelines also require the proponent to describe potential direct and indirect Project effects to migratory birds, including any effects related to the deposit of harmful substances in waters that are frequented by migratory birds. The proponent is also required to describe mitigation measures to address potential adverse effects. The EIS indicates that stormwater runoff from impermeable surfaces, such as bridge decks and approaches, can contain a number of pollutants, including suspended solids, hydrocarbons, metals, nutrients, and road salts. The EIS also describes that during and after rainfall events, stormwater runoff into waterbodies/watercourses can result in physical impacts, such as bank and channel erosion and increased sediment inputs. Potential adverse effects associated with stormwater runoff inputs from the Project into waterbodies/watercourses and terrestrial environments are not included in the residual effects assessments for surface water; groundwater; riparian, wetland, and terrestrial environments; fish and fish habitat; migratory birds; species at risk; or Indigenous peoples. The EIS notes that culvert and bridge crossings will be designed to direct stormwater runoff into vegetated areas or small retention ponds to decrease the velocity and volume of runoff, and to encourage settling of sediments and contaminants prior to discharge to nearby watercourses. No information is provided regarding the size and how the location of	a) Describe the parameters that will be used to determine if a retention pond will be required and where release of stormwater to vegetated areas is acceptable. Characterize the potential effects of the stormwater management options on each VC and the relationship to Indigenous peoples and their rights. Identify locations where stormwater management may be particularly sensitive. b) With respect to potential retention ponds/vegetated areas where stormwater runoff may be directed to, describe: i. the area of vegetated regions that may be affected by stormwater runoff and/or the area and maximum storage volume of retention ponds; ii. where and how water will be discharged following settling in vegetated areas/retention ponds; iii. how MI will ensure that the quality of water to be discharged meets applicable federal and provincial water quality guidelines; and iv. potential effects to VCs should the capacity to store water in vegetated areas and/or retention ponds be exceed (i.e. overflow events). c) Revise the assessment of potential Project effects, residual effects, and cumulative effects for migratory birds, bird species at risk, bird species of importance to Indigenous peoples, and Indigenous peoples to include potential effects resulting from the potential deposit of harmful substances in

				retention ponds will be selected, where stormwater runoff will be directed to, the relationship of these locations to VCs and important habitat areas, and the potential effects thereof. It is also unclear what adverse environmental effects may result from runoff storage in these locations and how MI will ensure that discharge water meets water quality guidelines. Supplementary information is required to understand and assess potential adverse effects of the Project to VCs as a result of stormwater runoff and retention, and to determine whether further mitigation may be required.	waters frequented by birds and in the event that birds use the stormwater retention areas as habitat. d) Describe mitigation measures[3] that will be implemented to address any adverse effects identified above and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.
IR1-29	Health Canada – Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – August 22, 2019 Meeting with the Agency	EIS Guidelines Part 2, Section 6.2.2 and 6.3.4	EIS Chapter 6, Section 6.2.4, 6.3.4, and 6.5.4	The EIS Guidelines require the proponent to describe potential changes to surface water quality, including any changes to turbidity. The proponent is also required to describe how changes to the environment caused by the Project may affect Indigenous peoples, drinking water quality, and the current use of lands and resources for traditional purposes. The EIS indicates that following the implementation of mitigation measures, increased sediment inputs from Project activities are not expected to result in sediment concentrations in surface water in exceedance of applicable regulations and that no adverse effects are anticipated beyond the defined mixing zones. No quantitative information or evidence is presented to support this conclusion and it is unclear what the defined mixing zone represents. As increased sediment concentrations may adversely affect surface and drinking water quality and other VCs. The MMF and MSCN expressed concerns that the EIS did not consider potential effects of increased sediment inputs to receiving waterbodies downstream of watercourse crossings required for the Project. Supplementary information is required to support the characterization of potential effects to VCs and to determine whether further mitigation and/or follow-up and monitoring protocols may be required.	a) Describe the area or region represented by the defined mixing zone and provide quantitative information, estimates, and/or evidence to support the conclusion that increased sediment inputs are not expected to result in contaminant concentrations in surface water outside of applicable regulations. Refer to Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Drinking and Recreational Water Quality* (2016)[4] for additional information. b) If the defined mixing zone includes downstream waterbodies and/or elevated sediment concentrations may result from the Project in areas used for drinking water or used by other VCs, revise the assessment of potential Project effects, residual effects, and cumulative effects for all VCs to include potential effects related to increased sediment inputs to receiving waterbodies/watercourses, including lakes, ponds, and wetlands downstream of watercourse crossings required for the Project. c) Describe mitigation measures that will be implemented to address any adverse effects to receiving waterbodies identified above and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.

[3] Ensure that all mitigation measures described are detailed, specific, achievable, measurable, and verifiable.

[4] Health Canada. 2016. *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Drinking and Recreational Water Quality*. Accessed from https://aeic-iaac.gc.ca/050/documents/p80054/119377E.pdf.

IR1-30	Health Canada – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 3.1, 5.1, and 6.1.5	EIS Chapter 6, Section 6.1.5.1.5, 6.3.4.5.3, and 6.3.9.3 EIS Appendix C-1	The EIS Guidelines require the proponent to describe seasonal surface water quality and the location and use of any local and regional potable water resources, including any water sources used for drinking and recreational use by Indigenous peoples. The proponent is also required to describe the drinking and industrial water requirements for the Project. The EIS describes how drinking water for the communities of MSCN, BCN, and GLFN is sourced from surface water within the RAA. No data are provided regarding the location of drinking water sources or the quality of water at these sources. The EIS also does not describe the location and quality of drinking water sources for all other Indigenous communities listed in Part 2, Section 5.1 of the EIS Guidelines. Without this information, potential Project effects to drinking water of Indigenous peoples cannot be assessed. The EIS indicates that GLFN, MSCN, and BCN did not describe any other seasonal, periodic, or temporary water sources, other than the main drinking water sources for their communities. It is unclear whether information regarding seasonal, periodic, or temporary water sources was specifically requested. Given that GLFN has been under an ongoing "Do Not Consume" advisory since 2005, as noted in the EIS, GLFN members may use local surface water sources other than their main drinking water supply. Members of GLFN and other Indigenous communities may also use surface water sources other than the main supply for their reserves during traditional land use activities conducted away from reserve lands. The EIS also notes that potable water for construction camps will be transported from existing sources in nearby Indigenous communities. No details are provided regarding the quantity of water that will be required, whether potable water sources within nearby Indigenous communities will have the capacity to support construction camp needs, the potential effects that this extra demand on potable water will have on the communities in question, or whether Indigenous groups have agreed to the use of their community's water supply for the Project. Supplementary information is required to support the proponent's description of baseline information for Indigenous peoples and the	a) Describe and include in a figure(s) the locations of identified drinking water sources within the RAA for all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines, including both on-reserve and off-reserve drinking water sources, if known. The locations of drinking water sources should be overlain with the location of Project components and activities, and should include current and any planned future drinking water sources. b) Describe the current baseline water quality of the drinking water sources identified in a). If water quality data has already been presented for these waterbodies or watercourses as part of the Aquatic Environment Report (Appendix C-1), provide references to these data for each drinking water source. c) Describe and analyze potential effects to Indigenous peoples from water quality deterioration for receptors that may use water within the Project footprint and downstream of the Project for drinking and recreational purposes, including any seasonal, periodic, or temporary water sources. Refer to Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Drinking and Recreational Water Quality* (2016)[5]. d) With regard to potential use of potable water supplies from existing sources in nearby Indigenous communities for construction camps and any other project activities, describe: i. the quantity of water that will be required and how this water will be transported to construction sites or other areas within the Project footprint where it may be required (e.g. water pipeline, trucks, etc.); ii. which Indigenous communities potable water will be sourced from;

[5] Health Canada. 2016. *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Drinking and Recreational Water Quality*. Accessed from https://aeic-iaac.gc.ca/050/documents/p80054/119377E.pdf.

				characterization of potential Project effects to the health of Indigenous peoples due to potential effects to drinking water quality and quantity.	iii. whether potable water sources from these Indigenous communities will have the capacity to support construction camp needs; iv. the potential effects of an increase in demand for potable water supplies and the potential effects on Indigenous communities if this increased demand results in a water shortage; v. proposed mitigation/accommodation measures to address increased demands on water resources and/or potential water shortages; and vi. whether Indigenous groups were engaged with and agreed to the use of their community's water supply for the Project. e) Should the proposed method to transport water from nearby Indigenous communities to the Project require construction of new infrastructure on Indigenous reserve lands (i.e. federal lands) or, for example, the use of trucks on reserve to transport water, include this as a project component/activity discussed in the response to IR1-26, question a). f) If Indigenous groups were engaged regarding the use of their community's potable water supply for the Project, summarize those engagement activities and their outcome. If not, describe when these engagement activities will take place and potential contingency potable water sources if potable water cannot be sourced from nearby Indigenous communities. g) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to include any potential effects identified in c).
IR1-31	Environment and Climate Change Canada – Project 6 Technical	EIS Guidelines Part 2, Section 6.2.2, 8.1, and 8.2	EIS Appendix C-2, Section 5.2.2.1 and 5.2.2.2	The EIS Guidelines require the proponent to describe potential changes to surface water quality, including any changes to turbidity and/or total suspended solids (TSS), and to present a preliminary follow-up and monitoring program for all phases of the Project.	a) Clarify whether MI plans to create one Project-wide TSS-turbidity relationship or will be creating site-specific TSS-turbidity relationships for each crossing location. If the former, provide a clear rationale for how one Project-wide TSS-turbidity relationship would accurately capture the site-

	Review Comments			The EIS indicates that in-stream Project activities and activities conducted near watercourses/waterbodies may increase the potential for erosion and sedimentation (i.e. an increase in TSS). The EIS notes plans to use turbidity measurements as a surrogate for TSS. ECCC notes that while *in situ* turbidity measurements can be a useful surrogate for TSS, TSS-turbidity relationships are site-specific. As such, in order to adequately characterize the relationship, it is necessary to obtain sufficient sampling data specific to the waterbody/watercourse and the sediment in question to establish the unique relationship between TSS and turbidity. It is unclear whether the proponent is proposing to create one Project-wide TSS-turbidity relationship or will create site-specific TSS-turbidity relationships for each crossing location. As the TSS-turbidity relationship may change over time, it is important to periodically collect and analyze TSS samples in a laboratory to validate and, if necessary, update the relationship. It is unclear whether this periodic validation will be conducted. With respect to TSS/turbidity monitoring, the EIS indicates that if exceedances of the *Manitoba Water Quality Standards, Objectives, and Guidelines* (MWQSOG) for the protection of aquatic life are detected, corrective actions will be taken. It is unclear how often monitoring for TSS will occur and what corrective actions will be taken to mitigate any exceedances of the MWQSOG for the protection of aquatic life. ECCC also noted that in terms of monitoring TSS concentrations, the TSS-turbidity relationship approach proposed by MI requires more frequent *in situ* measurements of turbidity to estimate TSS concentrations. This requirement must be considered when determining sampling frequency for monitoring of TSS concentrations. The EIS also notes that dewatering of cofferdams can result in discharges of water with excessively high TSS or pH at locations such as culvert placements or pier placements, respectively, due to contact with concrete. Any water pumped from cofferdams will be monitored to determine if it meets MWQSOG and if guidelines are exceeded, appropriate mitigation measures will be implemented to treat the water before it re-enters the watercourse. The EIS does not provide details regarding the mitigation measures to be implemented should exceedances of the MWQSOG be detected, how often monitoring will be conducted, or whether the	specific, unique characteristics of each individual waterbody/watercourse where crossings may be required. b) Indicate whether MI plans to periodically validate and, if necessary, update the TSS-turbidity relationship for each crossing location by collecting and analyzing TSS samples in a laboratory. i. If so, describe how often samples will be collected to validate the TSS-turbidity relationship. ii. If not, describe how MI will ensure that the TSS-turbidity relationship(s) used to monitor sediment inputs into waterbodies/watercourses is accurate and representative of actual conditions. c) Quantitatively indicate the frequency with which monitoring for TSS and monitoring of cofferdam water for TSS and pH will be conducted. d) Describe in detail the corrective actions, including mitigation and/or contingency measures, that will be implemented should monitoring data indicate that the MWQSOG for the protection of aquatic life have been exceeded. Indicate whether MI will adhere to the *Canadian Water Quality Guidelines for the Protection of Aquatic Life*. If not, provide a clear rationale why these guidelines will not be complied with.

				Canadian Water Quality Guidelines for the Protection of Aquatic Life will also be adhered to. Supplementary information is required to assess the adequacy of the proposed follow-up and monitoring plan with respect to potential effects to surface water quality from turbidity and pH and to determine whether further mitigation or contingency measures may be required.	
Atmospheric Environment					
IR1-32	Health Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.1.1, 6.2.1, and 6.5	EIS Chapter 3, Section 3.3.2.1 and 3.4.1.11 EIS Chapter 6, Section 6.1.1.2, 6.2.1, 6.2.1.1.1.1, 6.3.4.5.4, 6.4.1.1.1, and 6.5.9.5.4 EIS Chapter 8, Section 8.4.2.2	The EIS Guidelines require the proponent to describe baseline ambient air quality in the Project area and airshed likely to be affected and any changes in air quality resulting from the Project, including sulfur oxides (SO_x), nitrous oxides (NO_x), total suspended particulates, fine particulates smaller than 2.5 microns ($PM_{2.5}$), respirable particulates less than 10 microns (PM_{10}), and diesel particulates. The EIS Guidelines also require the proponent to describe any residual effects to the atmospheric environment following the implementation of mitigation measures and provide a characterization of the significance of those effects in terms of their magnitude, geographic extent, timing, duration, frequency, reversibility, and ecological and social context. The EIS indicates that the Project may result in an increase in particulates and vehicle emissions (i.e. SO_x, NO_x, diesel particulates, and volatile organic compounds [VOCs]) during construction, operation, and maintenance but does not describe the anticipated emissions rate or increase in concentration for each type of contaminant associated with each Project phase, with the exception of particulate matter emissions during construction of the ASR. Additionally, assessment of potential Project effects on the atmospheric environment and other VCs from concrete batching, blasting activities, and emissions from generators at construction camps is not demonstrated nor are mitigations provided. With respect to predicted Project effects to air quality, emissions estimates presented are based on a single literature source (Roberts et al. 2010[6]) which is limited to emissions of PM_{10} and $PM_{2.5}$ and does not include SO_x, NO_x, CO, VOCs, or diesel particulates, as required by the EIS guidelines.	a) Characterize the types and quantity of atmospheric contaminant emissions that may be associated with blasting, concrete batching, generators, and the transportation and handling of materials required for concrete production. Describe the potential adverse effects that may be associated with these contaminants and at the levels described. b) Describe the anticipated emissions rate or increase in concentration of atmospheric contaminants associated with activities and components during all Project phases. Anticipated increases in emissions rates and/or contaminant concentration must be provided for PM_{10}, $PM_{2.5}$, SO_x, NO_x, diesel particulates, VOCs, and any contaminants associated with blasting, concrete batching, generators, and the transportation and handling of materials required for concrete production, in concentration values comparable to guidelines[7] (i.e. $\mu g/m^3$). c) Provide a rationale to support the conclusion that construction related PM_{10} and $PM_{2.5}$ emissions estimates outlined in the study by Roberts et al. (2010) are applicable to the Project. i. Include consideration of how the location, timing, and meteorological conditions compare between the project and Roberts et al. (2010).

[6] Roberts, P.T., S.B. Reid, D.D. Eisinger, D.L. Vaughn, E.K. Pollard, J.L. DeWinter, Y. Du, A.E. Ray, and S.G. Brown. 2010. *Construction activity, emissions, and air quality impacts: real world observations from and Arizona road-widening case study*. Arizona Department of Transportation. Accessed from https://rosap.ntl.bts.gov/view/dot/20268.

[7] Canadian Ambient Air Quality Standards and Manitoba Ambient Air Quality Criteria

				Further, it is not clear whether the road widening project referenced in Roberts et. al. (2010) included activities such as blasting at quarries and borrow areas, temporary construction camps, bridge construction, or other activities that may result in particulate matter emissions. It is also unclear where air emissions values were measured in this study, either in relation to the location of receptors or the source of emissions, and under which meteorological conditions. The EIS also indicates that the Project has the potential to increase dust and other atmospheric emissions levels by 10 to 20 percent of baseline conditions prior to the implementation of mitigation measures and by 10 percent or less following mitigation. However, the EIS does not provide quantitative data regarding the baseline air quality for the Project footprint, LAA, or RAA with which to compare project emissions levels. Comparing predicted emissions rates associated with the Project to the *Canadian Ambient Air Quality Standards* and the *Manitoba Ambient Air Quality Criteria* is a more appropriate method for assessing the significance of Project effects to air quality. With regard to particulate matter and NO_x, the EIS indicates that, following the implementation of mitigation measures, exceedance of the *Manitoba Ambient Air Quality Criteria* and *Canadian Ambient Air Quality Standards* is not expected. As particulate matter and NO_x are non-threshold air contaminants, non-exceedance of air quality guidelines does not imply that there are no health risks. Further mitigation may be warranted to reduce levels of these contaminants as much as possible. Supplementary information is required to support the characterization of potential Project effects to the atmospheric environment, which may adversely affect other VCs, such as species at risk, migratory birds, federal lands, and Indigenous peoples' health and socioeconomic conditions. This information is also required to determine whether further measures may be required to mitigate adverse environmental effects.	ii. Discuss the uncertainties and limitations in using data from this study as a surrogate for Project emissions estimates for PM_{10} and $PM_{2.5}$. d) Describe the relationship of Project emissions sources to key receptors, including the distance between the Project and key receptors, the concentration of receptors at these locations, etc. e) Describe measures that will be implemented to mitigate contaminant emissions from blasting, rock crushing, concrete batching, generators, and the transportation and handling of materials required for concrete production. f) Revise the assessment of potential Project effects, the residual effects assessment, and the cumulative effects assessment for the atmospheric environment and for all other VCs to include emissions from blasting, concrete batching, generators, and the transportation and handling of materials required for concrete production. g) Compare the predicted increase in atmospheric emissions from Project components/activities during all phases to the most current *Canadian Ambient Air Quality Standards* and the *Manitoba Ambient Air Quality Criteria*. Include the numerical thresholds defined in these regulations. i. Alternatively, provide quantitative baseline data for the ambient air quality in the Project area and airshed likely to be affected by the Project, identifying and quantifying emissions sources for total suspended particulates, $PM_{2.5}$, PM_{10}, diesel particulates, carbon monoxide (CO), SO_x, NO_x, and VOCs. h) Compare the anticipated emissions levels of non-threshold air contaminants, including particulate matter and NO_x, to levels associated with adverse health effects in humans and wildlife. Describe measures that will be implemented to

					further mitigate emissions of non-threshold air contaminants to the greatest extent possible. i) Describe the air quality monitoring and follow-up program that will be implemented to monitor Project air emissions and any exceedances of provincial and federal air quality criteria. i. Explain how the follow-up and monitoring program will account for the absence of quantitative baseline data for the current air quality conditions in the area of the Project, if this quantitative baseline data is not provided in response to g). ii. Describe mitigation and contingency measures that will be implemented should exceedances of provincial and federal air quality criteria be detected.
IR1-33	Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency	EIS Guidelines Part 2, Section 6.2.1 and 6.3.5	EIS Chapter 3, Section 3.4.2.4 EIS Chapter 6, Section 6.2.1, 6.3.4.5.4, and 6.3.5	The EIS Guidelines require the proponent to describe any changes to air quality and any potential environmental effects on federal lands resulting from the Project. The EIS indicates that there may be an increase in particulate matter as a result of the Project that may exceed the *Manitoba Ambient Air Quality Criteria* and *Canadian Ambient Air Quality Standards*. The EIS also states that an increase in particulates in local Indigenous communities, including BCN, MSCN, and GLFN, is not expected as the road does not enter federal reserve lands, receptors are located at least 250 metres from the reserve boundaries, and prevailing winds in the area of the Project blow from the west and northwest, directing the majority of dust away from communities. While prevailing winds may blow from the west and northwest, this does not preclude winds from blowing in other directions, including towards communities and other receptors. Further, humans, while not in the communities themselves, and wildlife receptors may come within the predicted range of particulate matter while on reserve lands. The EIS indicates that chemical dust suppressants may be used if required and lists approved products. Should use of chemical dust suppressants be required, the EIS indicates that these chemicals will not be applied within 100 metres of a stream crossing or beyond the road surface, and are not expected to have negative effects on soils, surface water, vegetation,	a) Provide a frequency range in which dust and particulates may be transported towards the reserves of GLFN, BCN, and MSCN and, when this occurs: i. describe the maximum distance that dust and particulates may be transported based on wind speed and direction; and ii. characterize the receptors that are or may be present within the distance describe in i), including the location of receptors and the density of receptors at each location. b) Revise the assessment of potential Project effects, residual effects, and cumulative effects for all VCs to include: i. any potential risks/effects associated with the use of chemical dust suppressants, particularly if these products were to migrate from the area of application; and ii. potential effects associated with elevated concentrations of dust and particulate matter on federal lands, including to the receptors identified in a).

				wildlife health, or human health. The EIS does not provide further detail regarding the specific risks or potential effects to VCs associated with the use of chemical dust suppressants, should these products migrate from the area of application or contaminate the environment within the Project footprint, LAA, or RAA. Supplementary information is required to support the characterization of potential Project effects to the atmospheric environment and related potential adverse effects to other VCs.	c) Describe mitigation measures that will be implemented to address any potential adverse effects identified in b).
IR1-34	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.4.5.4	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the health of Indigenous peoples, including potential effects related to changes in air quality. The EIS indicates that potential effects to Indigenous peoples' health due to dust generated from the Project would likely not be significant as use of the Project footprint and adjacent areas would be limited in duration and plant collection would typically be conducted only under favourable conditions where dust dispersion would be minimal. No rationale or evidence is presented to support this conclusion and it is unclear whether this assumption was confirmed with Indigenous peoples who may use the area. Supplementary information is required to support the proponent's characterization of potential Project effects to Indigenous health.	a) Provide a clear rationale to support the conclusion that potential effects to Indigenous peoples' health due to dust generated from the Project would not be significant, including evidence to support the assertion that individual use of the Project footprint and adjacent areas by Indigenous peoples would be limited in duration and conducted under conditions of minimal dispersion potential. i. Describe engagement activities that have taken place with Indigenous peoples who may use the Project footprint to confirm the assertions above. If these engagement activities have not taken place, describe when and how these activities will take place. b) Should engagement with Indigenous groups indicate that use of the Project footprint and adjacent areas is not limited in duration and/or takes place in conditions favouring the generation of dust, describe potential effects to the health of Indigenous peoples, proposed measures that will be implemented to mitigate adverse effects. c) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to include any potential adverse effects identified in b).
Light, Noise and Sensory Disturbance					
IR1-35	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.1 and 6.4	EIS Chapter 6.2.1.4 and 6.4.1.4	The EIS Guidelines require the proponent to describe potential changes in night-time light levels associated with the Project during construction, operation, and maintenance, and to describe measures to mitigate any potential adverse effects.	a) Describe whether any Project activities during all Project phases, will or may occur outside of daylight hours or in conditions that may require the use of lighting equipment or equipment/vehicle headlights.

				The EIS describes that there will be no lighting associated with construction, maintenance, and operation of the ASR and therefore no potential Project effects to baseline day-time or night-time light levels. It is unclear whether construction and maintenance activities will occur only during the day or if activities will also occur at night, requiring the use of mobile lighting or equipment headlights. Additionally the EIS must also consider potential effects to night-time lights levels associated with operation of the Project, a potential increase in the duration of use annually (i.e. as opposed to only seasonal winter road use), and a potential increase in the volume of traffic. Supplementary information is required to support the characterization of potential Project effects to ambient light levels in the Project footprint, LAA, and RAA, which may adversely affect VCs.	i. If so, quantify the potential increase in ambient light levels associated with the Project at key receptor locations. Provide a rationale for how receptors were chosen and indicate the distance of the Project components or activities that may act as light sources to receptors. Consideration must be given to a potential increase in the duration of use of the Project area by traffic annually and a potential increase in traffic volume. b) Revise the assessment of potential Project effects, residual effects, and cumulative effects for all VCs to include potential adverse effects resulting from changes to the current night-time light levels in the Project footprint, LAA, and RAA at key receptor locations. c) Describe measures that will be implemented to mitigate adverse effects to VCs associated with potential Project effects to night-time light levels during construction or maintenance.
IR1-36	Health Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.1 and 6.4	EIS Chapter 6, Section 6.2.1.3	The EIS Guidelines require the proponent to describe potential changes in ambient daytime and night-time noise levels at key receptor points as a result of the Project during all phases and to describe measures to mitigate any potential adverse effects. The EIS does not provide noise level estimates for blasting activities and vehicular traffic associated with Project construction and operation. The EIS indicates that, based on the noise assessment conducted for the environmental assessment of the Project 4 – All-Season Road Connecting Berens River to Poplar River First Nation (Project 4), the effect of construction noise on receptors is not expected to occur beyond 300 metres of construction activities and beyond 500 metres of blast sites. Although the nearest residence to the Project is located approximately 250 metres from construction activities, the EIS concludes that effects to surrounding communities from the Project are considered to be negligible due to the distance of receptors and noise attenuation provided by dense forest. Project activities will extend at least to the reserve boundaries of BCN, MSCN, and GLFN, and potentially onto reserves (see IR1-26 above).	a) Describe noise levels associated with blasting during Project construction and operation and vehicular traffic during operation associated with the ASR, in decibels. The noise level estimate for vehicular traffic must consider a potential annual increase in both the duration of ASR use and volume of traffic, as well as seasonality of potential effects related to Project noise. b) Describe the relationship of all key receptors to Project components and activities that may generate noise during all Project phases, including the distance of key receptors from the Project, the density of receptors at each location, etc. c) Describe which guidelines Project noise levels are anticipated to remain compliant with and the significance of the 70 decibel threshold referenced throughout the assessment of potential Project effects to ambient noise levels. If both provincial and federal guidelines exist, discuss

				With regard to noise levels, the EIS describes the attenuation of noise in decibels (including dense forest) and frequently compares anticipated Project noise levels to a threshold of 70 decibels. The EIS indicates that noise levels are expected to remain below guidelines. It is unclear which guidelines are being referenced or the significance of the 70 decibel threshold. Potential long-term noise exposure (i.e. greater than one year) also has not been adequately assessed and Health Canada recommends using the change in percent highly annoyed (%HA) as an indicator of noise-induced human health effects from exposure to long-term construction noise. Further details on the %HA method can be found in Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise* (2017)[8]. Supplementary information is required to support the characterization of potential Project effects to ambient daytime and night-time noise levels, which may affect VCs.	whether the Project will be compliant with both or, if compliance with only one set of guidelines is discussed, provide a clear rationale for why the other guidelines will not be complied with. d) Compare the noise profile for each Project activity/component to the distance required to attenuate sound levels to below applicable guideline thresholds, as discussed in c), in relation to the distance from each receptor. i. Describe the amount of dense forest between Project activities/components and key receptors and asses if this amount is sufficient to attenuate noise levels to an appropriate level for key receptors. Revise the conclusions presented with respect to the anticipated magnitude of noise effects to key receptors if enough dense forest to appropriately attenuate elevated noise levels is not present. ii. Where adverse effects to noise levels in the Project footprint, LAA, and/or RAA are likely, describe measures that will be implemented to further mitigate potential effects and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures and monitor for any unanticipated effects. e) Indicate whether key receptors, including traditional land users, could be exposed to construction noise for a period greater than one year. i. If so, complete a full %HA analysis which clearly identifies the change in %HA with and without all applicable adjustments, as per Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise*. A rationale must be included to defend the use and the magnitude

[8] Health Canada. 2017. *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise*. Accessed from https://www.ceaa.gc.ca/050/documents/p80054/119378E.pdf.

					of any applicable adjustment, or the absence of adjustments. ii. If not, refer to Health Canada's guidance on mitigating short-term construction noise exposure, which can be found in the *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise*. Identify any applicable mitigation measures in this guidance and describe how, where, and when those measures will be implemented. f) Revise the assessment of potential Project effects, residual effects, and cumulative effects for ambient daytime and night-time noise levels at key receptors and to VCs which may be affected by changes in noise levels, to include the results of the %HA analysis, the analysis above with respect to noise attenuation by distance and forests, and any further mitigation measures that will be implemented.
IR1-37	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 5.1 and 6.3.4	EIS Chapter 6, Section 6.3.4.5	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the health of Indigenous peoples. The EIS indicates that Indigenous peoples and people visiting the area of the Project would not be exposed to an increase in noise from construction activities as noise levels would be less than 70 decibels, construction and maintenance activities would not occur within the boundaries of local reserves, and the nearest residences within communities are located 250 metres away from the ASR alignment. The only exception would be if individuals were to travel outside of local communities and/or within proximity to the ASR. As outlined in IR1-26, certain Project activities may occur on reserve lands. As such, Indigenous peoples may be exposed to elevated noise and vibration levels on reserve that may result in adverse health effects that were not considered in the EIS. The EIS also does not describe potential Project effects to Indigenous peoples associated with elevated noise and vibration levels during Project operation that may result in adverse health effects.	a) Describe potential effects to the health of Indigenous peoples from noise and vibrations resulting from any Project activities and components occurring both on and off reserve lands. i. Describe measures that will be implemented to mitigate any adverse effects identified. b) Revise the assessment of potential Project effects, residual effects, and cumulative effects to Indigenous peoples to include any adverse effects and mitigation measures identified in a).

				Supplementary information is required to support the proponent's characterization of potential Project effects to the health of Indigenous peoples. **See Annex 1 for related advice.**	
Hydrogeology					
IR1-38	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.1.5	EIS Chapter 6, Section 6.1.5.1.5, 6.1.5.2, 6.2.4.2.1, and 6.5.4.2.1	The EIS Guidelines require the proponent to describe groundwater flow patterns and rates, temporal changes in groundwater flow, groundwater quality, groundwater-surface water interactions (i.e. locations of groundwater discharge to surface water and surface water recharge to groundwater), and maps outlining the extent of aquifers, groundwater levels, potentiometric contours, flow directions, groundwater divides, and areas of recharge and discharge. The EIS indicates that as surface water is abundant and the demand for groundwater in the area of the Project is low, there is little information available about the distribution of aquifers, their yield, or water quality. Therefore, no baseline information regarding groundwater resources in the Project footprint, LAA, or RAA is provided. The Agency notes that although surface water is abundant and is the primary source of drinking water for Indigenous communities in the area of the Project, surface water resources may be fed by or otherwise interact with groundwater. An understanding of how and where these interactions occur and the characteristics of groundwater reserves in the area of the Project is required to characterize potential Project effects to groundwater, surface water, and VCs dependent on these resources. For instance, if the Project were to cut off or reduce the flow rate of a groundwater seep that feeds a fish-bearing watercourse, water levels in that watercourse may recede, potentially resulting in adverse effects to fish and fish habitat. When describing potential Project effects to groundwater quantity, both with and without mitigation measures, the EIS predicts a potential change in groundwater levels of less than 15 percent of seasonal variation as a result of the Project. Without baseline data on groundwater quantity and its interaction with surface water resources, it is not possible to assess whether a 15 percent change in groundwater quantity would have significant adverse effects or whether the mitigation measures proposed would be sufficient to address any adverse effects.	a) Describe the interaction of groundwater and surface water resources in the Project footprint, LAA, and RAA. Identify the location of areas of groundwater discharge and recharge and the discharge/recharge rate (i.e. rate of flow) at these locations. Demonstrate consideration of temporal or seasonal changes in groundwater flow. b) For each location of groundwater discharge or recharge, describe the characteristics of the surface waterbody/watercourse in question and its relationship to key receptors and Indigenous peoples' navigation routes that may be affected by changes in surface water quantity. With regard to fish and fish habitat, demonstrate a consideration of fish-bearing watercourses/waterbodies and non-fish-bearing watercourses/waterbodies that may interact with fish-bearing waters. c) Provide maps, at an appropriate scale, showing the extent of aquifers, groundwater levels, potentiometric contours, flow directions, groundwater divides, and areas of recharge and discharge in the Project footprint, LAA, and RAA. d) Describe the quality and quantity of groundwater reserves in the Project footprint, LAA, and RAA. e) Revise the assessment of potential Project effects, residual effects, and cumulative effects for all VCs to include any potential effects to surface water quality and quantity that may result should the Project adversely affect groundwater. f) Describe measures that will be implemented to mitigate any adverse effects identified in e).

				Supplementary information is required to support the characterization of baseline surface water and groundwater reserves, surface-groundwater interactions in the area of the Project, potential Project effects to surface water and groundwater quality and quantity, and potential Project effects to VCs that may be affected by changes to these resources.	g) Include potential groundwater-surface water interactions and any potential Project effects to surface water quality and quantity as a result of effects to groundwater in the follow-up and monitoring plan(s) proposed for the Project.
Vegetation and Habitat					
IR1-39	Manto Sipi Cree Nation – Project 6 Technical Review Comments God's Lake First Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1, 6.2.3, and 6.5	EIS Chapter 6, Section 6.2.5 EIS Appendix B-1 EIS Appendix B-2, Section 5.3.1	The EIS Guidelines require the proponent to describe predicted changes to the habitat of migratory and non-migratory birds, species at risk, and species of importance to Indigenous peoples as a result of the Project during all Project phases. The proponent is also required to describe any residual effects to the habitat of VCs and the significance of those effects, following the implementation of mitigation measures. The EIS describes potential Project effects to vegetation, including plant species important for wildlife habitat and for traditional use by Indigenous peoples. The effects assessment and assessment of the significance of potential effects does not consider potential adverse effects to vegetation from dust deposition, increased access to remote areas, or increased flooding as a result of the Project. Supplementary information is required to support the characterization of potential Project effects, and the significance of those effects, to vegetation and habitat, which may support VCs.	a) Describe potential effects to vegetation communities due to: i. dust deposition from project activities; ii. increased access to previously remote or inaccessible areas; and iii. flooding, including the location of these vegetation communities relative to the Project. b) Based on the effects described in a), identify potential effects to other VCs that may rely on these areas for habitat or other uses. c) Based on the effects described in a), identify potential effects to Indigenous peoples that may utilize the potentially affected vegetation communities for traditional purposes. Ensure that potential effects to all Indigenous communities listed in Part 2, Section 5.1 of the EIS Guidelines are considered. d) Describe mitigation measures to address potential effects and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. Revise the assessment of potential residual Project effects and cumulative effects to consider the effects and mitigation measures identified.
IR1-40	Manitoba Metis Federation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.3 and 6.5	EIS Chapter 1, Section 1.2.2 EIS Chapter 6, Section 6.2.5.1.2, 6.2.5.1.4, 6.5.5.1.1, and 6.5.5.1.4	The EIS Guidelines require the proponent to describe the predicted changes to the habitat of migratory and non-migratory birds, species at risk, and species of importance to Indigenous peoples as a result of the Project during all Project phases. The proponent is also required to describe any residual effects to the habitat of VCs and the significance of those effects following the implementation of mitigation measures.	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for vegetation, wetlands, and other related VCs to consider that only vegetation and wetlands in areas of temporary disturbance may recover following Project construction.

	Manto Sipi Cree Nation – Projet 6 Technical Review Comments		EIS Appendix B-1, Section 4.3 EIS Appendix B-2, Section 5.3.1	The EIS concludes that the effects of vegetation clearing and wetland disturbance/loss are reversible over a long period as native vegetation would grow back. However, as there are no plans to decommission the ASR and other Project components, vegetation would only grow back and wetlands may only be restored in areas to be reclaimed following construction and not in areas where Project components are to be permanent. This factor must be considered in the assessment of significance of potential residual Project effects. The proponent must also describe potential effects to wetland function and connectivity resulting from the permanent loss of wetlands or portions of wetlands. The EIS also notes that three environmentally sensitive sites, each supporting old growth forest stands, were identified along the ASR alignment and indicates that certain species of importance to Indigenous peoples, such as marten, utilize old growth forests as habitat. MSCN and the MMF expressed concerns that potential Project effects to old growth forests are not described. Supplementary information is required to support the characterization of potential Project effects to vegetation communities and related VCs.	b) Demonstrate that potential effects to wetland function and connectivity due to the permanent loss and/or alteration of wetlands or portions of wetlands is considered in the EIS. c) Describe potential Project effects to old growth forests, the area of old growth forest that may be disturbed or removed, the nature of the disturbance, and potential effects to species that may utilize old growth forests. i. Compare the area of old growth forest that may be disturbed or removed to the area of old growth forest available in the LAA and RAA. ii. Describe mitigation measures for adverse effects to old growth forests. iii. Provide an assessment of potential Project effects, residual effects, and cumulative effects for old growth forests species that may utilize these areas.
IR1-41	Pimicikamak Okimawin – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.3 and 6.5	EIS Chapter 3, Appendix 3-6 EIS Chapter 6, Section 6.2.5.1.2	The EIS Guidelines require the proponent to describe predicted changes to the habitat of migratory and non-migratory birds, species at risk, and species of importance to Indigenous peoples as a result of the Project during all Project phases. The proponent is also required to describe any residual effects to the habitat of VCs and the significance of those effects following the implementation of mitigation measures. The EIS describes MI's Nuisance Beaver Management Program, which includes measures for removal of nuisance beavers and dams in the event that beaver activity compromises culvert flow or fish passage, or otherwise threatens the safety or functionality of the Project. The proponent indicates that culvert cones will be used as a standard approach to mitigate the blockage of culverts by beaver activity. If further problems are observed related to beavers, the next step would be to trap the beavers and remove dams. Pimicikamak Okimawin noted that pond levelers or beaver deceivers may be potentially less expensive and more effective options for managing the Project's relationship with beavers, without the need for removal of beavers, destruction of dams, or habitat alteration and fragmentation. It is unclear whether these options were considered as	a) Describe alternative measures that may be technically and economically feasible to manage culvert blockage from beaver activity and provide clear rationale for the selected mitigation measures. b) Provide details regarding how MI plans to involve local trappers in the Nuisance Beaver Management Program, what local trappers may assist with, and whether Indigenous groups were engaged to determine their interest and capacity to aid MI with this program. c) Describe potential Project effects to beaver-influenced wetlands and VCs that may utilize these areas due to nuisance beaver management employed for the Project and include these effects in the assessment of potential Project effects, residual effects, and cumulative effects for wetlands and other VCs.

				potential mitigation measures for nuisance beavers. The EIS states that MI will involve local trappers in road maintenance activities within their registered trap line areas as part of the Nuisance Beaver Management Program. It is unclear how and in what capacity local trappers would participate in the Nuisance Beaver Management Program. It is unclear whether the proponent considered potential Project effects to wetlands due to removal of beaver dams or removal of nuisance beavers in the EIS. According to Pimicikamak Okimawin, beaver activity, including both active and abandoned dams, can influence existing wetland sites or create beaver meadows (i.e. a successional wetland type following abandonment of former ponds) that may be mistaken for fens. Beaver meadows, in addition to shallow water, swamp, and marsh wetlands created by beavers, may act as important habitat for many species of plants and wildlife. Therefore, long-term efforts to remove beaver dams, drain beaver ponds, and remove/relocate nuisance beavers may adversely affect wetlands, and plant and wildlife species that may use these areas for habitat. Supplementary information is required to support the characterization of potential Project effects to vegetation communities and beavers, which are a wildlife species of importance to Indigenous peoples for traditional purposes, and to assess whether mitigation measures proposed may be adequate to address potential adverse effects.	d) Describe measures that will be implemented to mitigate adverse effects to wetlands resulting from the removal of beaver dams, drainage of beaver ponds, and removal/relocation of nuisance beavers and follow-up and monitoring that will be conducted including for any unanticipated effects.
Wildlife					
IR1-42	Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments God's Lake First Nation – Project	EIS Guidelines Part 2, Section 6.3	EIS Chapter 6, Section 6.2.1.3, 6.2.5.5.1.2 to 6.2.5.5.1.6, 6.2.5.5.2.2, 6.2.5.5.2.3, 6.3.2.1 to 6.3.2.4, and 6.3.3 EIS Appendix D-2, Table 8	The EIS Guidelines require the proponent to describe potential adverse effects of the Project from sensory disturbance and mortality to migratory birds, species at risk, and species of importance to Indigenous peoples. The EIS indicates that moose, aquatic and terrestrial furbearers, migratory and non-migratory birds, and species at risk may be adversely affected by sensory disturbance and avoidance of high quality habitat near the ASR right-of-way (ROW) during construction and operation. The proponent considers the amount of habitat potentially affected to be small relative to habitat availability. No data are provided regarding the amount of habitat that may be potentially affected by sensory disturbance and no numerical comparison is made to the amount of habitat available in the wildlife RAA for each species. Without this information, conclusions with respect to the significance of indirect habitat loss due to avoidance cannot be verified. Additionally, although the description of potential sources of sensory	a) Indicate the amount of habitat that may be avoided by moose, aquatic and terrestrial furbearers, migratory and non-migratory birds, and species at risk as a result of sensory disturbance from the Project during all Project phases. b) Provide quantitative data regarding the anticipated number of individuals or proportion of moose, aquatic and terrestrial furbearers, migratory and non-migratory birds, and species at risk populations that may be lost as a result of direct and indirect mortality. c) Revise the assessment of potential Project effects, residual effects, and cumulative effects for caribou to include factors in addition to the calving rate in the Wildlife RAA, including

	6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency			disturbance includes a consideration of a variety of Project activities, the assessment of the significance of potential effects due to sensory disturbance to wildlife species only considers effects related to vehicle and equipment noise and only discusses potential habitat avoidance. The Agency notes that sensory disturbance can result from other Project activities, such as blasting, and can result in adverse effects to wildlife other than habitat avoidance, such as reduced fitness due to stress or altered behaviour. With respect to the description of potential Project effects to caribou as a result of sensory disturbance, the EIS indicates that as no Norway House caribou calved within the Wildlife RAA, the effect of sensory disturbance and displacement is predicted to be low. A lack of calving within the RAA is not an adequate rationale for the prediction that sensory disturbance effects will be low as sensory disturbance may result in habitat avoidance or other potential effects outside of calving periods or to individuals that are not calving. Furthermore, according to the EIS, a number of Norway House caribou were observed within the Wildlife LAA from March 1, 2016 to August 15, 2017. As such, while recorded instances of calving within the Wildlife RAA may be low, this does not preclude the presence or use of the Project footprint, LAA, or RAA by caribou. The EIS also describes how an increase in hunting pressure, vehicular collisions, and predation (i.e. only in the case of moose and caribou) may result in increased mortality of moose, aquatic and terrestrial furbearers, migratory and non-migratory birds, and species at risk. No quantitative data are presented regarding the anticipated number of individuals of each species or the proportion of each species' population that may be lost as a result of Project-related mortality. Pimicikamak Okimawin expressed concerns regarding potential increases in wildlife mortality resulting from potential illegal hunting and illegal dumping of waste. As poaching and illegal dumping may increase due to increased access to the area facilitated by the Project, this factor must be considered in the assessment of potential Project effects to wildlife. Supplementary information is required to support the characterization of potential Project effects and to verify conclusions with respect to the significance of effects to VCs as a result of sensory disturbance and mortality.	the number of individuals observed, when caribou are present in the Project footprint, LAA, and RAA, and where caribou are likely to be located in relation to Project components and activities. d) Revise the assessment of potential Project effects, residual effects, and cumulative effects for moose, aquatic and terrestrial furbearers, migratory and non-migratory birds, and species at risk to include: i. potential adverse effects of an increase in hunting pressure; ii. potential effects of sensory disturbance from Project components/activities other than vehicle and equipment noise and vibrations; and iii. effects of sensory disturbance other than habitat displacement.

IR1-43	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3, 6.4, and 6.5	EIS Chapter 6, Section 6.2.5	The EIS Guidelines require the proponent to describe potential adverse effects of the Project to fish and fish habitat, migratory birds, species at risk, and species of importance to Indigenous peoples for traditional purposes. The proponent is also required to describe measures to mitigate any potential adverse effects and any residual adverse effects following the implementation of mitigation measures. The EIS does not discuss potential Project effects and pathways of effect to the health of fish, migratory birds, species at risk, and species of importance to Indigenous peoples, which may in turn affect, for example, population sizes, fitness, and reproductive capacity of local species. Should species of importance to Indigenous peoples for traditional use be adversely affected, this may have an adverse effect on the ability of Indigenous peoples to practice traditional use activities. Supplementary information is required to support the characterization of potential Project effects to fish and fish habitat, species at risk, migratory birds, and Indigenous peoples.	a) Describe the potential effects of all Project components and activities during all Project phases to the health of fish, migratory birds, species at risk, and species of importance to Indigenous peoples, and include a description of the nature of the effect, pathway of effect, and the severity of the effect. b) Should the potential exist for adverse Project effects to wildlife health to occur, describe the effect this may have on wildlife populations, fitness, reproductive capacity, suitability for harvest by Indigenous peoples, and the suitability of individuals for human consumption, if harvested. Include a quantitative estimate of the anticipated number of individuals or proportion of the populations of fish, migratory birds, species at risk, and species of importance to Indigenous peoples that may be lost as a result of any adverse effects to health. c) Based on the effects noted in b), describe potential effects on the ability of Indigenous peoples to practice traditional use activities. d) Describe measures that will be implemented to mitigate adverse Project effects to wildlife health and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. e) Provide an assessment of potential Project effects, residual effects, and cumulative effects for wildlife health.
IR1-44	Environment and Climate Change Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3, 6.4, and 6.5	EIS Chapter 6, Section 6.3.3.2	The EIS Guidelines require the proponent to describe potential adverse effects of the Project to species at risk and species of importance to Indigenous peoples for traditional purposes. The proponent is also required to describe measures to mitigate any potential adverse effects and any residual adverse effects following the implementation of mitigation measures. Environment and Climate Change Canada (ECCC) noted concerns that the EIS does not describe potential effects to wildlife species' movement as a	a) Describe potential effects of the Project to wildlife species' movement. b) Describe measures that will be implemented to mitigate any adverse effects identified above and follow-up and monitoring that will be conducted to verify predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.

	God's Lake First Nation – June 5, 2019 Meeting with the Agency God's Lake First Nation – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency			result of the Project, particularly the bridges over God's Lake and Magill Creek. Additionally, as Indigenous peoples may depend on the harvest of certain wildlife species for traditional purposes, any changes to the movement patterns and/or distribution of wildlife species may have an adverse effect on the ability of Indigenous peoples to practice traditional use activities. A similar concern was also noted by GLFN, who indicated that displacement/disturbance from the ASR may scare away or attract wildlife to certain areas due to curiosity, which may affect wildlife migration and movement patterns. Supplementary information on potential effects to wildlife movement is required to support the characterization of potential Project effects to species at risk and Indigenous peoples.	c) Provide a residual effects assessment for any adverse Project effects to wildlife species' movement, following the implementation of mitigation measures. Ensure that any residual Project effects to wildlife species' movement patterns are included in the cumulative effects assessment.
IR1-45 (see also IR1-41)	Pimicikamak Okimawin – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4 and 6.4	EIS Appendix D-2, Section 7.3.2	The EIS Guidelines require the proponent to describe potential changes resulting from the Project to resources used for traditional purposes by Indigenous peoples, including wildlife species identified as culturally important. The proponent is also required to describe measures to mitigate any potential adverse effects. The EIS indicates that beavers may be adversely affected by the Project due to sensory disturbance, habitat loss, and mortality. It is unclear how the mitigation measures and activities proposed in the EIS could be considered mitigation measures that may address adverse effects to beavers. In the assessment of the significance of residual adverse effects to beavers, the EIS also indicates that beavers are a very adaptable and prolific species and uses this as a rationale for why residual effects may be minimal. No rationale or evidence is provided to support this conclusion. With respect to the management of nuisance beavers (see IR1-41 for additional context), concerns have been identified regarding the Project's relationship with beavers including the removal of beavers, destruction of dams, or habitat alteration and fragmentation. It is unclear whether management options, such as those described by Pimicikamak Okimawin, were considered as potential mitigation measures for nuisance beavers.	a) Describe the measures that will be implemented to mitigate adverse effects to beavers resulting from sensory disturbance, habitat loss, and mortality during all Project phases and from all Project components and activities. Describe alternative measures that may be technically and economically feasible to manage culvert blockage from beaver activity. i. Revise the residual and cumulative effects assessments for beavers to include these mitigation measures. b) Using clear rationale and/or evidence, justify the assertion that beaver are an adaptable and prolific species. c) Confirm whether active use of beaver lodges and dams identified during aerial multi-species surveys was confirmed through field studies on the ground and justify the baseline estimates presented in the EIS with respect to the size of beaver populations in the area of the Project. Revise the assessment of potential Project effects, residual effects, and cumulative effects for beaver to account for any potential discrepancies in the population size of beavers.

				The EIS notes that aerial multi-species surveys were utilized to collect baseline information on the number of beaver lodges and dams in the area of the Project as a proxy for beaver abundance. It is unclear whether MI conducted field studies on the ground to verify whether these features are currently in use by active beaver colonies or if they are abandoned relic structures, which can persist for many years. If active use of these lodges/dams was not verified, the EIS may overestimate the size of the beaver population in the Project footprint, LAA, and RAA, potentially underestimating adverse Project effects to beaver abundance. Supplementary information is required to support the characterization of potential Project effects to beavers, which are a wildlife species of importance to Indigenous peoples for traditional purposes, and to assess whether mitigation measures proposed may be adequate to address potential adverse effects.	
IR1-46	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4 and 8.0	EIS Appendix D-2, Section 7.2.1	The EIS Guidelines require the proponent to describe any changes resulting from the Project to resources used for traditional purposes by Indigenous peoples. The proponent is also required to describe the proposed follow-up and monitoring program to verify the accuracy of the effects assessment, effectiveness of mitigation measures, and to describe proposed contingency measures. The EIS notes that moose densities within the LAA are low and that the Project is not expected to result in any measurable adverse effects to moose populations. Uncertainties are noted regarding the degree of effects within the LAA for moose, however no information or rationale is included to characterize the uncertainty referenced. The EIS also notes that potential Project effects to moose due to habitat fragmentation are expected to be minor as moose will adapt to the presence of the road, likely avoiding or moving across the road to avoid vehicles. The EIS does not describe how effects to moose will be monitored during all Project phases to verify this prediction or the mitigation measures that will be implemented should monitoring indicate that effects to moose are more severe than anticipated. It is unclear whether analysis was conducted for baseline information for moose presence and use of previously burned areas. This is important for understanding the current use of habitat by moose species and potential	a) Describe the uncertainty regarding the degree of effects within the LAA for moose, including the nature of the uncertainty and how this uncertainty may affect the conclusions regarding potential Project effects to moose. b) Describe the monitoring and follow-up plan(s) that will be implemented to verify the prediction that moose will adapt to the presence of the road and/or avoid the road to prevent mortality/injury. c) Should monitoring indicate that moose are not adapting to or avoiding the road as anticipated, describe contingency measures that will be implemented to mitigate adverse effects to moose from vehicle collisions and the thresholds that would trigger the implementation of such measures. d) Clarify whether an analysis was conducted with respect to moose presence and use of previously burned areas within the Project footprint, LAA, and RAA. If not, provide information, such as data from field studies or literature, regarding the use of burned areas by moose. i. Update the assessment of potential Project effects, residual effects, and cumulative effects for moose to include potential effects as a result of fires from

				effects to moose habitat should wildfires result from Project components and activities or should wildfire occurrence and severity increase in the future with climate change, resulting in cumulative effects with the Project. Supplementary information is required to support the characterization of potential Project effects to moose, a wildlife species identified as important to Indigenous peoples for traditional purposes. Include consideration of sensory disturbance and increased harvesting rates (IR1-42), wildlife health (IR1-43), and movement patterns (IR-28).	the Project and/or due to potential increases in wildfire occurrence and severity in the future with climate change.
IR1-47	Manto Sipi Cree Nation – Project 6 Technical Review Comments God's Lake First Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 5, Table 5.8 EIS Chapter 6, Section 6.1.4.5.4 EIS Appendix D-2, Section 7.4.2	The EIS Guidelines require the proponent to describe potential changes resulting from the Project to resources used for traditional purposes by Indigenous peoples, including wildlife species identified as culturally important. The EIS describes that there may be adverse effects to marten, should the Project facilitate increased access to previously remote or inaccessible areas by non-local trappers, resulting in higher trapping pressure on marten populations due to the relative ease to trap and high price for the pelts. Despite this, the EIS concludes that there is no evidence that martens will be negatively affected to a measurable extent by the Project. No rationale is provided in the EIS to support this conclusion. As this species is important to Indigenous peoples for traditional use and income, any adverse effects to marten as a result of the Project may adversely affect the socioeconomic conditions of Indigenous peoples and their ability to practice traditional land use. MSCN and GLFN also expressed concerns regarding the use of marten in the EIS as the only species to represent all terrestrial furbearers. To support the selection of marten as the representative terrestrial furbearer for the Project, the EIS indicates that marten was selected as their habitat can be modelled to assess effects, their habitat is representative of the other VCs, and they are a species of importance for commercial harvesting by Indigenous peoples. However, there may be limitations in the assessment approach as marten may not be representative of potential effects to all furbearer species of importance to Indigenous peoples or furbearer species at risk.	a) Justify, with rationale and evidence, the conclusion that the Project will not result in adverse effects to marten populations due to increased trapping pressure. i. If the Project will result in adverse effects to marten, describe mitigation measures to address potential effects and revise the residual and cumulative effects assessments for marten. b) Should effects to marten from the Project be identified in a), describe potential effects to Indigenous peoples as a result of these effects. c) Describe potential limitations of using marten as the representative terrestrial furbearer species for the assessment of potential Project effects to all furbearers, including species at risk and species of importance to Indigenous peoples. Demonstrate how Indigenous traditional knowledge was considered in the selection of marten as representative of all other terrestrial furbearers that may potentially occur in the area of the Project. i. Alternatively, following engagement with Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines to obtain their insight into which species may be considered representative of all terrestrial furbearers, provide an assessment of potential Project effects, including residual and cumulative effects, for each species identified and any associated effects to other VCs.

				Supplementary information is required to support the characterization of potential Project effects to species of importance to Indigenous peoples for traditional use.	ii. Describe mitigation measures that will be implemented to address any adverse effects identified above. d) Describe follow-up and monitoring that will be conducted to verify predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.
IR1-48	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.2.3 and 6.3.2.6	The EIS Guidelines require the proponent to describe potential changes resulting from the Project to resources used for traditional purposes by Indigenous peoples, including wildlife species identified as culturally important. The EIS indicates that ruffed grouse, a species noted by Indigenous peoples as important for traditional use, may be adversely affected by the Project due to increased hunting pressure. However, effects are expected to be limited due to potential improvements to habitat conditions near the Project footprint and due to the cyclical nature of ruffed grouse populations, resulting in varying hunting opportunities as populations fluctuate through time. The Agency notes that fluctuations in population size may not directly correlate with the rate of harvest of ruffed grouse species. For instance, increased hunting pressure from the Project during a state of natural population decline may adversely affect the ability of local Indigenous peoples to harvest this resource; this must be considered in the assessment of potential Project effects. The EIS also notes that the potential for migratory and non-migratory bird mortality from vehicle collisions is higher when concentrations of birds are present within one kilometre of roads and that ruffed grouse are frequently killed by vehicles as they fly across roads. The proponent concludes that mortality due to vehicle strikes is not expected to have any effect on local populations despite noting that the Project may result in an improvement in habitat conditions for ruffed grouse near the footprint. Due to the fact that a higher number of individuals may be preferentially attracted to the ASR as a result of habitat improvements and the anticipated increase in vehicular traffic due to the Project, mortality rates of ruffed grouse may increase. Additionally, improved habitat conditions near the ASR may not be limited to ruffed grouse; there could be a higher risk for vehicle collisions for other species as well (i.e. migratory birds, bird species at risk, and other bird species of importance to Indigenous peoples).	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for ruffed grouse to consider the fact that the ASR may preferentially attract bird species to the Project footprint, potentially resulting in higher mortality rates. Revisions must also be made to include the fact that cyclical population changes may not correlate to hunting pressure. i. If other bird species (i.e. migratory birds, bird species at risk, other bird species of importance to Indigenous peoples, etc.) may experience similar effects as above due to habitat improvements near the ASR, revise the residual and cumulative effects assessments for those species. b) Describe measures that will be implemented to mitigate adverse effects to ruffed grouse and other bird species, as appropriate, resulting from increased hunting access and vehicle collisions and the follow-up and monitoring that will be conducted to verify predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.

				Supplementary information is required to support the characterization of potential effects to species of importance to Indigenous peoples for traditional use and to assess whether further measures may be required to mitigate adverse environmental effects.	
IR1-49	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.1.9 and 6.3.4	EIS Appendix D-2, Section 7.6 and 7.6.1	The EIS Guidelines require the proponent to describe baseline information for wildlife species of importance to Indigenous peoples for traditional use and any potential changes resulting from the Project to those species. With respect to the presence of nests and young of bald eagles, a species of cultural importance to local Indigenous peoples, within the Wildlife RAA, the EIS indicates that aerial surveys did not identify any nesting sites near the Project footprint. However, the EIS also describes how aerial surveys conducted in 2015 resulted in seven bald eagle stick nest observations within the RAA and one within the Project footprint, and surveys conducted in 2016 resulted in a single incidental nest observation. It is unclear whether the presence of nests and young within or near the Project footprint was accounted for in the assessment of potential Project effects to bald eagle. Supplementary information is required to support the characterization of potential Project effects to species of importance to Indigenous peoples for traditional use and to assess whether further measures may be required to mitigate adverse environmental effects.	a) Clarify whether bald eagle nests were observed within the Project footprint, LAA, and RAA and, if so, confirm whether the number of observations noted in the EIS for the 2015 and 2016 surveys is accurate. b) If the presence of bald eagle nests and young within the Project footprint, LAA, and RAA was not considered in the assessment of potential Project effects, residual effects, and cumulative effects for bald eagle, revise these assessments to include the confirmed presence of bald eagle nests and, potentially, young.
IR1-50	Manitoba Metis Federation – Project 6 Technical Review Comments God's Lake First Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3	EIS Chapter 6, Section 6.4.5, 6.4.6, 6.4.7, 6.4.8, 6.5.5, and 6.5.8	The EIS Guidelines require the proponent to describe potential adverse effects of the Project to fish and fish habitat, migratory birds, species at risk, and species of importance to Indigenous peoples. The EIS describes mitigation measures to avoid clearing or conducting Project activities near sensitive areas of ungulates, furbearers, migratory birds, species at risk, and fish, or during critical lifecycle periods. Limited information is provided regarding the distance of sensitive areas from Project components and activities or a complete, consolidated description of the critical lifecycle periods that will be avoided. It is also unclear how the proponent plans to avoid certain Project activities during critical lifecycle periods. For instance, while construction activities could be scheduled to avoid critical lifecycle periods, it is unclear how the proponent plans to avoid or mitigate potential effects in these timing windows during Project operation. Additionally, the EIS indicates that no construction	a) Describe the distance between Project components and activities and any sensitive areas for fish, migratory birds, species at risk, species of importance to Indigenous peoples for traditional use, and Indigenous peoples, and describe what these sites are or may be used for. b) Provide a consolidated table describing the critical lifecycle periods for fish, migratory birds, species at risk, species of importance to Indigenous peoples for traditional use, and Indigenous peoples, including for individual species, where applicable, that will be avoided and indicate which species is associated with each period. With respect to critical periods for Indigenous peoples, this shall include important periods such as hunting and trapping seasons and periods important for ceremonies or cultural activities.

				activities will occur within 100 metres of an eagle's nest, heron rookery, or other sensitive wildlife area without prior approval from the contract administrator and MI. No criteria or decision making factors regarding when and under what circumstances approval to clear within this buffer would be granted are described. Supplementary information is required to support the description of mitigation measures to limit adverse effects to fish and fish habitat, migratory birds, species at risk, and species of importance to Indigenous peoples, and to assess whether further mitigation measures may be required.	i. Engagement with Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines must be undertaken to identify critical periods for Indigenous peoples and/or to verify any information that MI may have collected with respect to these critical periods from secondary sources. c) Describe how MI plans to avoid critical periods, including critical periods for Indigenous peoples, during Project operation. d) Describe the criteria and/or decision making factors that will be considered when determining whether clearing will be allowed within 100 metres of an eagle's nest, heron rookery, or other sensitive wildlife area, and the approval criteria to allow clearing within the buffer.
Species at Risk					
IR1-51	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.1.4 and 6.3.3	EIS Chapter 6	The EIS Guidelines require the proponent to describe baseline information and potential adverse effects of the Project to species at risk, including a characterization of potential residual effects. With regard to the selection of wildlife species to include in the EIS, MSCN noted that species observed by community members in the area of the Project include northern myotis (*Myotis septentrionalis*) and red knot (*Calidris canutus rufa*), which are listed as "Endangered" under Schedule 1 of SARA, and polar bear (*Ursus maritimus*), listed as "Special Concern" under Schedule 1 of SARA. No baseline data are provided for these species and an assessment of potential Project effects to these species is not included in the EIS. Supplementary information is required to support the characterization of baseline information and potential Project effects to species at risk.	a) Include a description of baseline information, an assessment of potential Project effects, a residual effects assessment, and a cumulative effects assessment for northern myotis (*Myotis septentrionalis*), red knot (*Calidris canutus*), and polar bear (*Ursus maritimus*). Describe measures that will be implemented to mitigate adverse effects identified and include these species in the description of follow-up and monitoring plans for the Project. i. Alternatively, provide a clear rationale for why a description of baseline information and potential Project effects is not included for these species, including a description of the views of Indigenous groups on the matter.
IR1-52	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.3 and 6.4	EIS Chapter 6	The EIS Guidelines require the proponent to describe potential direct and indirect adverse effects to species at risk resulting from the Project and any measures that will be implemented to mitigate those effects. The EIS does not provide information regarding arthropod species at risk. MSCN noted that yellow-banded bumblebee, which is listed as a species of	a) Describe the arthropod species at risk that may occur in the Project footprint and LAA. For each species identified, provide baseline data on: i. their SARA status; ii. residences, seasonal movements, movement corridors, habitat requirements, key habitat areas,

				"Special Concern" under Schedule 1 of SARA, has been observed in the area of the Project. As the Project will result in disturbance and loss of vegetation (i.e. potential habitat and food sources for this species) and will facilitate year-round road access which may result in mortality due to vehicle strikes, this species may be adversely affected. Supplementary information is required to support the characterization of potential Project effects to species at risk.	iii. any identified critical habitat, and general life history; and iii. any published studies that describe the regional importance, abundance, and distribution of these species at risk, including recovery strategies or plans. The existing data must be supplemented by surveys, as appropriate, to provide current field data.
IR1-53	Environment and Climate Change Canada – Project 6 Technical Review Comments God's Lake First Nation – June 5, 2019 Meeting with the Agency Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.3	EIS Chapter 6, Section 6.5.8.2.2.1 EIS Appendix D-1 EIS Appendix D-2, Table 22 and 23 EIS Appendix D-2, Section 7.1	The EIS Guidelines require the proponent to describe potential adverse effects of the Project to species at risk. The EIS describes the amount of habitat for the Pen Islands and Norway House boreal woodland caribou herds that may be disturbed as a result of the Project compared to the amount of habitat currently disturbed by the existing winter road. Although the EIS notes in the residual effects assessment for boreal woodland caribou that habitat loss would result from the Project after the implementation of mitigation measures, Table 22 of Appendix D-2 indicates that there would be a net habitat gain of 4.23 square kilometres (km^2) in the Pen Islands range. No rationale is provided to explain or support this inconsistency. It is also unclear whether the values presented in Tables 22 and 23 of Appendix D-2 represent the entirety of the Project, including both permanent and temporary disturbances, or just the ASR. With respect to the measures described to mitigate adverse Project effects to caribou and their habitat, the EIS indicates that pre-construction surveys and telemetry data will be utilized to identify the presence of calving areas. It is not clear what measures will be taken to mitigate effects to caribou habitat should calving areas be found. The EIS also indicates that a mitigation measure for caribou will include providing "some protection" to important habitat features such as mineral licks, if discovered. It is unclear what "some protection" would entail or how this would protect important habitat features. With respect to telemetry data and locational mapping showing caribou movements, the EIS states that this information has been withheld due to the perceived sensitivity of the data and potential risk to the species should this information be disclosed publicly. Maps and telemetry data would assist ECCC in assessing potential adverse effects of the Project to caribou.	a) Provide a rationale for why habitat availability would increase for Pen Islands caribou following construction of the Project and clarify the discrepancy between the information presented in Tables 22 and 23 of Appendix D-2 and the conclusions presented in the residual effects assessment for woodland caribou. Revise Table 22 or the residual and cumulative effects assessments, as appropriate. b) Clarify whether the data presented in Tables 22 and 23 of Appendix D-2 includes the area of caribou habitat potentially disturbed by only the ASR or all permanent and temporary Project activities and components. i. If values presented do not include all permanent and temporary Project components and activities, revise the area of habitat disturbance presented in Tables 22 and 23 to account for this. Revise the assessment of potential Project effects, residual effects, and cumulative effects for caribou to account for the total area of habitat disturbance from the Project. c) Describe the mitigation measures that MI will implement should caribou calving areas be identified during pre-construction surveys or using telemetry data and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. d) Describe the mitigation measures that will be implemented to protect important caribou habitat features such as mineral licks.

				To ensure that this information is protected and not released publicly, the Agency recommends that this information be shared directly with ECCC, who would treat the information as sensitive. Members of GLFN and Pimicikamak Okimawin have also expressed an interest in reviewing these data to compare the proponent's assessment with their own traditional knowledge of caribou movement and distribution patterns. With regard to the herds of caribou included in the EIS, the EIS only considers potential effects to Norway House and Pen Islands caribou. As noted by MSCN, individuals from the Beverly and Qamanirjuaq caribou herds have been observed in the area of the Project. Additionally, MSCN expressed concerns that potential effects to the Nelson-Hayes, Island Lake, and Barren Grounds caribou herds were not considered. A rationale must be provided for why these caribou herds were not considered in the EIS. Supplementary information is required to support the characterization of potential Project effects to boreal woodland (listed as "Threatened" under Schedule 1 of SARA) and eastern migratory caribou (listed as "Endangered" by COSEWIC) and to assess the validity of conclusions with respect to potential Project effects.	e) Provide a summary of telemetry data and, if possible without compromising species recovery, a map of caribou use of the RAA. Include a seasonal breakdown of the data. Please discuss confidentiality of the information with the Agency before providing potentially sensitive data. f) Provide a rationale to support the exclusion of the Beverly, Qamanirjuaq, Nelson-Hayes, and Island Lake caribou herds from consideration in the EIS, considering that community members of MSCN have observed members from some of these herds in the area of the Project.
IR1-54	Pimicikamak Okimawin – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.3	EIS Chapter 6, Section 6.3.3.2.2	The EIS Guidelines require the proponent to describe potential direct and indirect adverse effects to species at risk resulting from the Project, including any changes to their habitat. The EIS indicates that there is the potential for a decrease in the population size and habitat availability of little brown bat (*Myotis lucifugus*) due to Project-related clearing and sensory disturbance. Potential effects to little brown bat as a result of collisions with vehicles or construction/maintenance equipment and potential spread of white-nose syndrome are not described. As construction and operation of the Project would result in increased construction and public traffic, the risk of introduction and spread of white-nosed syndrome to the area of the Project may increase, especially if construction equipment and traffic are sourced from areas where the disease is prevalent. Supplementary information is required to support the characterization of potential Project effects to species at risk, including little brown bat, which is listed as "Endangered" under SARA.	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for little brown bat to include: i. any adverse effects resulting from collisions with vehicles or construction/maintenance equipment; and ii. the potential introduction and spread of white-nose syndrome during all project phases. b) Describe measures that will be implemented to mitigate any adverse effects and follow-up and monitoring that will be conducted.

IR1-55	Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.3 and 6.4	EIS Chapter 4, Appendix 4-1 EIS Chapter 6, Section 6.4.8.2.2.2	The EIS Guidelines require the proponent to describe potential direct and indirect adverse effects to species at risk from the Project and any measures that will be implemented to mitigate those effects. The EIS notes that, while wolverine (*Gulo gulo*) is a species listed as "Special Concern" under Schedule 1 of SARA and was identified as important to Indigenous peoples, this species did not qualify as a VC due to the difficulty in modelling and monitoring them. Despite this, the EIS describes potential Project effects to wolverine and outlines mitigation measures to address any adverse effects. No discussion is presented regarding the limitations or uncertainties associated with the conclusions reached in the assessment of potential Project effects, the residual effects assessment, or cumulative effects assessment due to the lack of baseline data for wolverine. Additionally, although no baseline data are available for wolverine in the area of the Project, it would be beneficial to reference studies assessing the effects of other similar road projects on wolverine to support the conclusions made. Similar concerns were also expressed by MSCN and Pimicikamak Okimawin. With respect to mitigation measures to address potential adverse Project effects to wolverine during Project construction, the EIS indicates that, should natal and maternal den sites of wolverine be found, MI will provide construction staff with information regarding potential den sites; however, details are required regarding what the proponent plans to do to mitigate Project effects should den sites of wolverine be located. Supplementary information is required to support the characterization of potential Project effects to species at risk.	a) As baseline data for wolverine in the area of the Project were not collected, describe the limitations/uncertainties with respect to the conclusions reached regarding potential Project effects to wolverine. This description must include reference to studies related to the effects of similar road projects or other related projects to wolverine, if available. b) Describe mitigation measures that will be implemented to address adverse effects to wolverine den sites if found during construction, in addition to notifying construction personnel of the location of den sites, and follow-up and monitoring that will be conducted. c) Revise the residual and cumulative effects assessments for wolverine to consider the mitigation measures identified in b).
IR1-56	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.3, 6.3.2, and 6.3.3	EIS Chapter 1, Section 1.2.2 EIS Chapter 6, Section 6.5.7.1 and 6.5.8.2.1 EIS Appendix D-2, Section 5.1.3.2	The EIS Guidelines require the proponent to describe potential direct and indirect adverse effects to migratory birds and species at risk resulting from the Project, including any changes to their habitat. The EIS indicates that adverse effects to migratory birds and species at risk may result from the Project through habitat loss, alteration, and fragmentation. As it is anticipated that the ASR will remain in perpetuity, decommissioning of the ASR must not be considered as a factor in assessing potential residual Project effects associated with habitat loss. In describing the availability of habitat for bird species, the EIS describes both "primary" and "secondary" habitat. No definitions of what constitutes	a) Revise the residual effects assessment for migratory birds and species at risk to account for the irreversibility of habitat loss, alteration, and fragmentation resulting from permanent Project components, given that there are no plans to decommission these components. b) Define what constitutes primary and secondary habitat for each species of migratory bird and bird species at risk. c) Indicate whether the primary and secondary habitat data used in the ALCES model and the Boreal Avian Modelling

				primary and secondary habitat for each species is provided and it is also unclear what data sets (i.e. ALCES model and/or the Boreal Avian Modelling studies) were used in characterizing primary and secondary habitat data and any potential uncertainties/limitations of the data. Additionally, the EIS does not describe whether any critical habitat for migratory bird species at risk exists within the Project footprint, LAA, or RAA, and no recovery strategies are described. Supplementary information is required to support the characterization of potential Project effects to migratory birds and species at risk and to verify the validity of conclusions with respect to potential residual effects.	studies were the same. If not, highlight the main differences between these two data sets, as well as any potential uncertainties/limitations with using two different sets of habitat data. d) Should critical habitat for any migratory bird species at risk exist within the Project footprint, LAA, or RAA, describe the amount of habitat available and the amount of habitat that may be disturbed or lost as a result of the Project. e) Should recovery strategies exist for any migratory bird species at risk that may occur within the Project footprint, LAA, or RAA, describe these strategies and how MI will adhere to them.
Migratory Birds					
IR1-57	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.2.3, 6.3.2, and 6.3.4	EIS Chapter 6, Section 6.3.2.3 EIS Appendix D-2, Section 7.7.5 and 7.9.3	The EIS Guidelines require the proponent to describe potential direct and indirect adverse effects to migratory birds resulting from the Project. The proponent is also required to describe potential changes resulting from the Project to resources used for traditional purposes by Indigenous peoples, including wildlife species identified as culturally important. The EIS indicates that the Project will provide increased access to previously remote areas during the spring and summer staging periods and may cause an increase in local hunting of migratory and non-migratory birds. Given the amount of available habitat throughout the RAA and LAA, the proponent anticipates adverse effects to migratory and non-migratory birds related to overharvest to be minor. The Agency notes that habitat availability may not preclude effects of overhunting; even though there may be a high amount of habitat available, if birds are being overhunted in these areas there could still be an adverse effect to migratory and non-migratory bird populations, including bird species of importance to Indigenous peoples. With respect to potential Project effects to migratory and non-migratory birds, the EIS concludes that increased access and harvesting opportunities facilitated by the ASR will benefit local resource users. As potential benefits to local resource users may not correlate to benefits to migratory and non-migratory birds, this factor should not be included in the assessment of potential Project effects to migratory and non-migratory birds.	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for migratory and non-migratory birds, including bird species at risk and species of importance to Indigenous peoples, to: i. reflect that the amount of available habitat in the area of the Project may not correlate with potential adverse effects to bird populations from increased hunting pressure; and ii. remove consideration of potential benefits to local resource users as a result of increased access for hunting from the assessment of effects to migratory and non-migratory birds.

				Supplementary information is required to support and assess the validity of conclusions with respect to potential Project effects to migratory birds, bird species at risk, and bird species of importance to Indigenous peoples for traditional use.	
Fish & Fish Habitat					
IR1-58	Fisheries and Oceans Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 1.4, 5.1, 6.3.1, and 6.4	EIS Chapter 1, Section 1.4.1 EIS Chapter 6, Section 6.3.1.6	The EIS Guidelines require that the proponent describe any federal power, duty, or function that may be exercised that would permit the carrying out in whole or in part of the Project or associated activities; and any legislation or other regulatory approvals that are applicable to the Project at the federal, provincial, regional, and municipal levels. The proponent is also required to identify any potential adverse effects to fish and fish habitat and any mitigation measures that will be implemented to address any potential adverse effects. The EIS indicates that, should Fisheries and Oceans Canada (DFO) determine that a *Fisheries Act* authorization is required for the Project, MI will be required to develop offsetting plans for DFO review prior to commencing construction of watercourse crossings. The EIS does not describe options or examples of offsetting measures that may be considered or how and when Indigenous groups will be involved in the development of offsetting measures. It should also be noted that, in addition to reviewing the offsetting plans, DFO will need to approve/agree to these plans prior to issuance of an authorization under the *Fisheries Act*. Additionally, on August 28, 2019, an Act to amend the *Fisheries Act* and other acts in consequence came into force, replacing the *Fisheries Act* which came into force in 2012 (DFO 2019[9]). While the EIS indicates that an authorization from DFO under the former *Fisheries Act* may be required for the Project, no reference is made to potential requirements under the *Fisheries Act* that is currently in force. It should be noted that amendments in the *Fisheries Act* currently in force have implications for projects currently under review by DFO, including the Project, and should be considered in developing offsets. Supplementary information is required to support the characterization of federal regulatory requirements related to the *Fisheries Act* authorization	a) Describe options or examples of offsetting measures that may be considered in the event that an authorization under the current *Fisheries Act*, and therefore offsetting plans, are required. b) Provide a summary of any applicable regulatory approvals and potential offsetting requirements with respect to the current *Fisheries Act*.

[9] Fisheries and Oceans Canada (DFO). 2019. Introducing Canada's modernized *Fisheries Act*. Accessed from https://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/introduction-eng.html.

				for the Project and potential adverse effects of the Project to fish and fish habitat. This information is also required to assess whether further mitigation measures may be required. **See Annex I for related advice.**	
IR1-59	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3.1, 6.4, and 6.5	EIS Chapter 6, Section 6.4.6.2 and 6.6.1.2	The EIS Guidelines require the proponent to describe any potential adverse effects to fish and fish habitat that may result from the Project, including potential effects resulting from blasting. The proponent is also required to describe measures that will be implemented to mitigate any potential adverse effects. To mitigate potential adverse effects to fish and fish habitat resulting from blasting, the EIS indicates that blasting plans will be developed prior to blasting in areas that could affect fish habitat; these plans would comply with blasting regulations. Details regarding the measures that will be contained within these plans to mitigate potential adverse effects to fish and fish habitat are not provided in the EIS. It is also unclear who would develop these blasting plans, what would be included in these plans, how compliance with these plans would be enforced, which blasting regulations would be complied with, and whether Indigenous groups have been or will be engaged during the development of blasting plans. It is also unclear whether these plans are the same or separate from the Blasting Management Plan that the EIS states will be developed by the construction contractor(s). It should also be noted that plans are not the same as mitigation measures. Without the information outlined above, including details of proposed mitigation measures that will be contained within blasting plans, the effectiveness of these measures cannot be assessed. The EIS also indicates that, following the implementation of mitigation measures, injury or death to fish from blasting may still occur, but that residual effects from blasting are not expected to result in a measurable reduction to fish populations. No quantitative estimates of the number of fish or proportion of fish populations that may be injured or killed as a result of blasting activities is provided and the EIS does not present rationale to support the conclusion that a measurable reduction will not occur.	a) Clearly describe the measures that will be implemented to mitigate potential adverse effects to fish and fish habitat from blasting, including fish death or injury, and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. b) Clarify whether the blasting plans referenced are the same or separate from the Blasting Management Plan that will be developed by the construction contractor(s). If the blasting plans are separate from the Blasting Management Plan: i. describe who would be responsible for developing the blasting plans; ii. if MI will not be responsible for the development of blasting plans, describe whether these plans will require approval by MI; and iii. describe the regulations that the plans will comply with and who will enforce them. c) With respect to the Blasting Management Plan and/or the blasting plans, if separate from the former: i. describe the information and mitigation measures that will be included in these plans or that are typically included; and ii. describe whether the development of these plans will involve engagement with Indigenous groups. d) Provide a clear rationale to support the conclusion that blasting is not expected to result in a measurable reduction in fish populations, including quantitative estimates of the number of fish or proportion of fish populations that may be injured or killed as a result of blasting activities.

				Supplementary information is required regarding measures that will be implemented to mitigate potential effects to fish and fish habitat from blasting and to assess their adequacy.	
IR1-60	Manitoba Metis Federation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.1.6, 6.3.1, and 6.3.3	EIS Chapter 6, Table 6.41 EIS Chapter 6, Section 6.3.3.1 EIS Appendix C-1, Section 4.2.3 and Appendix 5	The EIS Guidelines require that the proponent describe fish habitat present in the Project study areas by homogeneous section, including the length of each section and any natural obstacles, such as falls or beaver dams, or existing structures that may hinder the free passage of fish and provide maps at a suitable scale indicating the surface area of potential or confirmed fish habitat. The proponent is also required to describe potential direct and indirect adverse Project effects to fish and fish habitat, including any fish species at risk. This description should include calculations of any potential temporary or permanent habitat loss in terms of surface area and in relation to watershed availability and significance. The EIS does not include a description of the amount of fish habitat currently present in the Project footprint, LAA, or RAA, including the area, length of section, and width of section, or any natural obstacles or existing structures that may limit fish passage. The EIS also does not include maps indicating the surface area of potential or confirmed fish habitat. Without this information, predictions with respect to the significance of potential habitat loss or alteration due to the Project cannot be assessed. It is also unclear whether existing obstacles to fish passage were considered in the assessment of potential Project effects, residual effects, or cumulative effects. With respect to potential barriers to fish passage, Pimicikamak Okimawin noted that, while beaver dams are generally viewed as a barrier to fish passage, research in other regions has indicated that some species of fish may pass through or by beaver dams more frequently than previously assumed (Lokteff et al. 2013[10]). Passage upstream may be seasonal during high water periods but was found to be significant and downstream passage through porous dams by young fish is often possible (Cutting et al. 2018[11]). Beaver ponds may also provide useful spawning and rearing habitat for some species of fish and may not always act as definitive barriers. As described in IR1-41, this may also have implications in terms of	a) Describe the area of fish habitat currently present within the Project footprint, LAA, and RAA, delineated by habitat type for each species of fish potentially present, including lake sturgeon and other aquatic species at risk. Compare the amount of habitat currently available to the amount of habitat that may be lost, altered, or disturbed by the Project, including both permanent and temporary components and activities, per fish species. b) Provide maps at a suitable scale indicating the surface area of potential or confirmed fish habitat (e.g. spawning, rearing, nursery, feeding, overwintering, migration routes, etc.) overlain with the location of Project components and activities. c) Given that beaver ponds may provide useful spawning and rearing habitat for some species of fish, describe potential effects to fish and fish habitat, including the availability and quality of habitat, due to the removal of beaver dams, drainage of beaver ponds, and removal/relocation of nuisance beavers through MI's Nuisance Beaver Management Program. d) Revise the assessment of potential Project effects, residual effects, and cumulative effects for fish and fish habitat to include potential existing natural or anthropogenic obstacles to fish passage, and potential effects related to MI's Nuisance Beaver Management Program. e) Provide quantitative data regarding the anticipated number of individuals or proportion of lake sturgeon population(s)

[10] Lokteff, R.L., B.R. Roper, and J.M. Wheaton. 2013. Do beaver dams impede the movement of trout? *Transactions of the American Fisheries Society*, 142: 1114-1125.

[11] Cutting K.A., J.M. Ferguson, M.L. Anderson, K. Cook, S.C. Davis, and R. Levine. 2018. Linking beaver dam affected flow dynamics to upstream passage of Arctic grayling. *Ecology and Evolution*, 8(24): 12905-12917.

				potential effects to fish and fish habitat resulting from MI's Nuisance Beaver Management Program. The EIS also indicates that there is the potential for a decrease in the population of rare fish species, including lake sturgeon (*Acipenser fulvescens*), from the Project due to blasting, reduced fish passage, habitat alteration/loss, invasive species, and adverse effects to water quality. The proponent does not anticipate these adverse effects to be significant following the implementation of mitigation measures. No data are provided regarding the amount of lake sturgeon habitat that may be altered/lost and no quantitative comparison is made to the amount of habitat available in the Project footprint, LAA, or RAA. Without this information, conclusions with respect to the significance of habitat loss/alteration resulting from the Project cannot be verified. Additionally, no quantitative data are presented regarding the anticipated number of individuals or the proportion of the lake sturgeon population(s) in the area that may be lost as a result of Project-related mortality. Supplementary information is required to support the description of fish and fish habitat currently present within the Project footprint, LAA, and RAA, and to assess predictions with respect to potential Project effects to fish habitat.	that may be lost or adversely affected as a result of the Project.
IR1-61	Fisheries and Oceans Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1, 6.3.1 and 6.4	EIS Chapter 6, Section 6.2.5, 6.3.1, 6.4.5, 6.4.6, 6.5.5, and 6.5.6 EIS Chapter 6, Table 6.41	The EIS Guidelines require that the proponent identify any potential adverse effects to fish and fish habitat, including any potential temporary or permanent habitat loss in terms of surface area and in relation to watershed availability and significance. The proponent is also required to identify any mitigation measures that will be implemented to address any potential adverse effects. The EIS notes that there will be residual effects to fish and fish habitat from the permanent footprint of watercourse crossing structures, including bridges and culverts. Temporary construction infrastructure and activities within watercourses (e.g. cofferdam installation, excavation for culvert installation, etc.) and other activities and infrastructure below the high water mark will also create in-stream and riparian disturbance footprints. This alteration/footprint, while temporary, may result in serious harm to fish and fish habitat and is not adequately characterized in the EIS. This information is also required to assess potential Project effects to the current use of lands and resources for traditional purposes by Indigenous peoples.	a) Describe the location, footprint, and nature of all temporary construction infrastructure and activities that will or may occur near or within fish-bearing watercourses/waterbodies and any non-fish bearing waterbodies/watercourses that may contribute indirectly to fish habitat. i. Include the locations of all temporary construction infrastructure and activities in a figure or figure(s). b) Clarify whether Table 6.41 presents total fish habitat loss and alteration prior to or following the implementation of mitigation measures. If the former, provide a table describing the amount of fish habitat that is expected to be lost/altered as a result of the Project following the implementation of mitigation measures. c) Provide a table that clearly indicates the amount of habitat that will be lost/altered as a result of temporary and permanent Project components and activities, separately.

				Table 6.41 of the EIS describes the total habitat alteration and loss at the proposed watercourse crossings for the Project. It is unclear whether this table presents total habitat loss/alteration prior to or following the implementation of mitigation measures to limit the amount of fish habitat disturbance, and whether the estimates provided in this table include only permanent Project components and activities or permanent and temporary components and activities. Supplementary information is required to support and assess the characterization of the total construction footprint, potential adverse effects to fish and fish habitat, and potential effects to Indigenous peoples. Additionally, this information is required to determine whether the temporary construction activities or footprint of the Project would result in harm to fish and fish habitat, in which case a DFO *Fisheries Act* authorization may be required, as well as mandatory offsetting.	d) Describe potential effects to Indigenous peoples, particularly the current use of lands and resources for traditional purposes, as a result of watercourse crossings, including any permanent and temporary components and activities, and resulting from any effects to fish and fish habitat which may be of importance to Indigenous peoples.
IR1-62	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.3.1	EIS Chapter 1, Section 1.2.2 EIS Chapter 6, Section 6.3.1.6, 6.4, and 6.5.6.6 EIS Chapter 6, Table 6.41 EIS Appendix C-1 and C-2	The EIS Guidelines require the proponent to describe any potential adverse effects to fish and fish habitat as defined in subsection 2(1) of the *Fisheries Act*, including calculations of any potential temporary or permanent habitat loss in terms of surface areas and in relation to watershed availability and significance. This includes potential effects on riparian areas that could affect aquatic biological resources and productivity taking into account any anticipated modifications to fish habitat. The EIS notes that riprap installed to armour culvert inlets and outlets will create a positive effect by increasing habitat diversity and productivity in areas where riprap does not create a complete infill. The EIS does not address the issue that, while riprap may be beneficial to certain fish species by providing additional habitat, not all species of fish have the same habitat requirements. As such, a benefit to one species from the installation of riprap could equate to an adverse effect to another species that may utilize the habitat currently present but could no longer use it following alteration. The EIS describes the amount of in-stream and riparian fish habitat that may be lost or altered from crossing footprints and road approaches for all crossings over watercourses/waterbodies that support fish habitat (Table 6.41). In terms of riparian habitat loss for each crossing, the EIS consistently reports losses of 36 square metres (m^2) for each crossing, noting that riparian habitat loss and alteration were calculated as the width of the	a) Recalculate the estimates of potential habitat loss and alteration presented in Table 6.41 to be consistent with the description of the baseline amount of riparian and in-stream habitat for watercourse crossings provided in Appendix C-1. b) Provide a rationale to support the conclusion that installation of riprap for culvert armouring would create a positive effect by increasing the diversity of fish habitat and productivity. Include consideration of the fact that not all fish species utilize the same habitats and that alterations creating one type of habitat may have a detrimental effect on another fish species that may have utilized the habitat prior to disturbance. i. Clearly list and explain which fish species may potentially benefit from the addition of riprap for culvert armouring and which species may experience adverse effects. ii. Describe post-construction monitoring and follow-up activities that will be undertaken to confirm predictions with respect to potential benefits and adverse effects to fish from culvert armouring. iii. Describe contingency measures that will be implemented should monitoring indicate that

				roadbed on each bank and the 60 metre cleared right of way on each bank, respectively. However, the EIS also notes that riparian habitat width conditions vary at each Project crossing (Appendix C-1). For example, at watercourse crossing P6a-X002, the average surveyed riparian width at the crossing is between 30 and 35 metres on the right and left banks, respectively. This width was not considered in the estimated riparian loss value presented for the watercourse crossings in Table 6.41. While the EIS describes potential effects to fish habitat during construction, it is unclear whether effects to fish habitat may result during maintenance activities, and if so what those effects would be and their significance. MI should discuss with DFO if permitting is required for proposed maintenance activities. Additionally, in the residual effects assessment for potential Project effects to fish habitat during construction, the EIS concludes that the effect of habitat loss and alteration is reversible over a long period. However, as there are no plans to decommission the ASR and other permanent Project components, it is unclear how the proponent concluded that effects to fish habitat would be reversible. Supplementary information is required to support the characterization of potential Project effects to fish and fish habitat and to determine whether further mitigation may be required.	riprap is not resulting in positive habitat effects or is resulting in unanticipated adverse effects. c) Revise the assessment of potential Project effects, residual effects, and cumulative effects for fish and fish habitat to: i. include the revised estimates for potential habitat loss/alteration; ii. include fish habitat loss/alteration due to culvert armouring, including consideration that habitat alteration may have both positive and negative effects, depending on the species; iii. include fish habitat loss/alteration during Project maintenance; and iv. account for the fact that fish habitat loss/alteration would not be reversible given that there are no plans to decommission the ASR and other permanent Project components. d) Describe measures that will be implemented to mitigate any adverse effects identified in c) and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects.
IR1-63	God's Lake First Nation – June 5, 2019 Meeting with the Agency Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical	EIS Guidelines Part 2, Section 6.3.1 and 6.6.2	EIS Chapter 6, Section 6.3.1	The EIS Guidelines require that the proponent describe potential geomorphological changes and their effects on hydrodynamic conditions and fish habitat, as well as potential effects of modifications of hydrological and hydrometric conditions on fish habitat and on fish species' life cycle activities. The EIS Guidelines also require the proponent to describe how local conditions and natural hazards, such as severe and/or extreme weather conditions and external events, could adversely affect the Project and how this in turn could result in effects to the environment. This must include a discussion of longer-term effects of climate change. The EIS indicates that Project construction and operation could result in adverse effects to fish and fish habitat due to altered flow regimes and changes to the geomorphology of waterways, and includes general descriptions of the baseline geomorphology of watercourses/waterbodies where crossings may be required. The EIS is lacking an assessment of how specific Project components, including culverts, bridges, and associated	a) In the absence of detailed design, provide predictions of potential alterations to flow regimes and geomorphology for all watercourse crossings that may result from the possible bridge and culvert design choices available to MI. i. Based on the results of this analysis, describe potential effects to fish and fish habitat as a result of changes to flow regimes and geomorphology of watercourses. b) Describe the minimum setback distance to be used for bridge abutments at Magill Creek and God's River. Assess the potential for adverse effects to fish and fish habitat due to potential constriction of flow, scouring, erosion, and sedimentation effects that may occur from culverts, bridges, and associated road fill and abutments.

	Review Comments			road fill and abutments, will alter local geomorphology and flow, and related effects to fish and fish habitat. Although the proponent commits to conducting hydraulic and geotechnical investigations prior to construction to finalize crossing locations and determine site hydraulics and foundation conditions at watercourse crossings, potential Project effects to natural channel processes based on the anticipated type and size of culverts should be described and assessed. Additionally, the EIS does not describe the potential for periodic and/or climate change-induced precipitation, snowmelt, or ice breakup to generate flooding or ice jams, which may, in combination with Project effects to geomorphology and flow regimes, act to imperil the road and watercourse crossing infrastructure, or may require design modifications to minimize the likelihood of ice scour, ice jams, or increased erosion potential. Site specific baseline data, predictive modeling, and detailed design for the bridge crossings at Gods River and Magill Creek are also absent from the EIS; this information is required to assess potential Project effects at these specific crossing locations, including potential effects to fishing, navigation, ice formation, and site erosion. While the EIS describes potential mitigation measures to address adverse effects to fish and fish habitat from potential blockage or reduction of fish passage from bridge and culvert installation, these measures are not site or species specific. Further, no information is provided regarding how the effectiveness of mitigation measures employed will be monitored during construction and operation of the Project. Supplementary information is required to support the characterization of potential Project effects to the geomorphology of waterbodies/watercourses where crossings may be required, which may adversely affect fish and fish habitat and the ability of Indigenous peoples to practice traditional use activities. This information is also required to determine whether site-specific mitigation measures may be required.	c) Assess the potential for periodic and/or climate change-induced precipitation, snowmelt, or ice breakup to generate significant flooding or ice jams. Describe how this may act cumulatively with Project effects to geomorphology and flow regimes to imperil the road and watercourse crossing infrastructure, and describe design modifications that may be required to minimize the likelihood of ice scour, ice jams, or increased erosion potential. i. Based on the results of this assessment, describe potential effects to fish and fish habitat and the ability of Indigenous peoples to practice traditional use activities as a result of ice scour, ice jams, or increased erosion potential. d) For the watercourse crossing locations described as important for fish habitat, describe measures that will be implemented to mitigate potential adverse effects to fish passage, including consideration of both site and species specific factors. e) Describe how the effectiveness of mitigation measures will be monitored during construction, and how successful implementation of these mitigation measures will be verified through monitoring programs during operation of the Project.
IR1-64	Manitoba Metis Federation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.1.6	EIS Chapter 3, Section 3.4.1.5 EIS Chapter 6, Section 6.1.6	The EIS Guidelines require the proponent to provide a characterization of fish populations on the basis of species and life stage information, and a description of the surveys carried out and the source of data available, including the location of sampling stations, catch methods, date of catches, species, and catch-per-unit effort. The proponent is also required to	a) Provide a full characterization of fish populations within the Project footprint, Aquatic LAA, and Aquatic RAA, including population abundance, distribution, and movement patterns on the basis of species and life stage.

	Manto Sipi Cree Nation – Project 6 Technical Review Comments		EIS Appendix C-1	provide a description of secondary productivity of aquatic resources in terms of abundance and distribution in potentially affected waterbodies. The EIS describes the fish species confirmed to be present in the Project study areas through field sampling or potentially present based on Indigenous knowledge and historical distribution data, and provides data on the number of fish captured per crossing. A full characterization of fish populations, including abundance, distribution, and movement patterns on the basis of species and life stage is not provided. Describing only the number of fish captured at each crossing during field sampling is not sufficient to characterize population abundance, distribution, and movement patterns; other information, such as catch-per-unit effort, is needed to understand this. Additionally, baseline aquatic species and habitat data in the EIS is limited to sampling from one season of one year. This level of effort may not have been sufficient to determine the presence of species with low abundance that may be sensitive or have specific protection requirements. Information related to seasonal and year-to-year changes in aquatic ecosystems in the area of the Project is also important to support planning for detailed design, habitat offsetting, and site-specific mitigation measures. In the absence of detailed and multi-season baseline information, mitigation measures must be described to specifically address uncertainty in the predicted effects of the Project to fish and fish habitat. With respect to the description of the methodology employed during fish community sampling and mussel sampling, minimal detail is provided regarding collection methods, effort, or tabulation of results. Detail regarding the sampling methodology employed at each collection site must be described. With respect to fish presence at stream crossings, the EIS indicates that field surveys were conducted at 21 of the stream crossing locations proposed for the Project and that fish presence was not confirmed through field sampling at the remaining 32 streams crossed by the ASR as most do not have supporting fish habitat. However, elsewhere in the EIS, the proponent notes that 25 of the 53 watercourse crossings required for the Project are fish-bearing. It is unclear why the proponent chose not to collect field survey data for the remaining four stream crossings confirmed	b) Provide a rationale for why field survey data regarding the presence of fish was not collected at four of the 25 proposed stream crossings confirmed to be fish-bearing and provide data on the presence/absence of fish at these four stream crossings. c) Describe the sampling methodology employed at each site sampled during field surveys for fish and mussels, including: i. date(s) of collection; ii. type of survey gear used; iii. effort; and iv. results for each site surveyed. d) Describe mitigation measures, such as changes to the timing of Project activities and crossing structure design, that will be implemented to address the uncertainty introduced by reliance on a single season of baseline information for fish and fish habitat. e) Describe follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. f) Describe contingency measures that will be implemented should monitoring indicate that measures to mitigate adverse Project effects to secondary productivity are insufficient and/or should pre-construction monitoring indicate the presence of fish at crossings previously classified as non-fish-bearing. Describe the thresholds that will be used to indicate that contingency measures may be required, including a detailed rationale for the thresholds chosen.

				to be fish-bearing and why they concluded that these streams do not contain supporting fish habitat, given that fish presence has been confirmed. As mitigation measures presented in the EIS are to be applied only to known fish-bearing waters and potentially fish-bearing waters, the assumption of non-fish bearing status for 28 watercourses and numerous wetlands within the Project footprint may result in unanticipated residual effects to fish and fish habitat. The EIS also does not provide details on secondary productivity of aquatic ecosystems within the Project footprint, LAA, and RAA, including baseline data. On this subject, the EIS notes that the well-documented effects of road projects on aquatic ecosystems and well established measures for mitigation, make additional site investigations to measure secondary productivity unnecessary and effects to secondary productivity from the Project would be negligible. The Agency notes that while the general effects of road projects may be well understood, the magnitude and significance of effects of projects may differ greatly based on the location of each project and the unique characteristics of the aquatic environment in those locations. As such, contingency measures may be required should monitoring indicate that standard mitigation measures to avoid or prevent effects to secondary productivity are insufficient. Supplementary information is required to support the characterization of potential Project effects to fish and fish habitat and to assess the severity and significance of potential Project effects.	
IR1-65	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 5.1 and 6.1.11	EIS Appendix C-1, Section 4.2.6.1.1	The EIS Guidelines require the proponent to describe the current use of land in the Project study areas, including a description of recreational and commercial fishing and any fishing activities practiced by Indigenous peoples. The EIS notes that, of the 23 streams where culvert crossings are proposed and that are confirmed to be fish-bearing, seven streams were assessed as not contributing to a Commercial, Recreational, or Aboriginal (CRA) fishery, despite the fact that these crossing sites support forage fish. The rationale provided for this conclusion is that these sites provide poor overwintering conditions and restricted access to large-bodied fish. Although these seven crossing sites may not possess suitable conditions to directly support or provide access to large-bodied fish that may contribute to a CRA fishery, the forage fish species present may have the ability to migrate into areas	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for CRA fisheries to include potential adverse effects to fish-bearing streams previously considered as not contributing to a CRA fishery. b) Describe how MI determined the extent of Aboriginal fisheries that may be adversely affected by the Project and what information MI used to determine their extent. c) Describe which Indigenous groups MI engaged with to collect information to determine the extent of CRA fisheries. i. If MI did not collect information from all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines, provide a clear rationale for

				that support large-bodied fish and may act as a food source, thereby supporting the productivity of CRA fisheries. It is also unclear how MI determined the extent of Aboriginal fisheries and whether information from all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines was considered in determining the extent of CRA fisheries and potential Project effects. Supplementary information is required to support the description of baseline information for fish and fish habitat and the current use of lands and resources for traditional purposes by Indigenous peoples. This information will also aid in the review of the assessment of potential Project effects to fish and fish habitat and Indigenous peoples.	why certain groups were excluded or describe when MI plans to collect this information and how this information will be included in the assessment of potential effects to CRA fisheries presented in the EIS.
IR1-66	Fisheries and Oceans Canada – Project 6 Technical Review Comments	EIS Chapter 6, Section 6.2.4.1.2, 6.4.6.4, and 6.4.6.5	EIS Guidelines Part 2, Section 6.3.1	The EIS Guidelines require the proponent to describe any potential adverse effects to fish and fish habitat, including any effects resulting from geomorphological changes, modifications of hydrological and hydrometric conditions, changes to water quality and sediment quality in surface water, and any modifications in migration or local movements. With respect to potential in-stream activities, the EIS notes that, in the event that construction within or near fish-bearing waterbodies/watercourses is required under unfrozen conditions, cofferdams or other diversions would be installed to separate the dewatered worksite from flowing water and fish salvage would be conducted in the isolated area. The EIS only describes potential effects to fish and fish habitat as a result of sediment re-suspension, channel and bank erosion, and altered channel hydraulics. Potential adverse effects to fish resulting from fish salvage and fish habitat alteration/loss from cofferdam construction, use, decommissioning, and potential breaching events are not described. Further, the EIS does not address the potential need for fish salvage at crossings that were assessed as non-fish-bearing or contingency measures that will be implemented should fish be observed in these areas during construction. With respect to culvert maintenance, the EIS indicates that any maintenance activities would comply with DFO's restricted activity timing windows unless accumulated material is preventing the passage of water and/or fish through the structure, at which point emergency debris removal may be carried out at any time of year. The potential effects to fish	a) Revise the assessment of potential Project effects, residual effects, and cumulative effects for fish and fish habitat to include potential adverse effects from: i. the construction, use, and decommissioning of cofferdams or other diversions that may be required during construction or maintenance of the Project, including any temporary habitat alteration/loss and potential cofferdam breaches/failures; ii. fish salvage; and iii. emergency debris removal from culverts during restricted activity periods. b) Describe the proposed contingency plan and contingency measures that will be implemented in the event that fish are observed at waterbody/watercourse crossing locations thought to be non-fish-bearing.

				and fish habitat from emergency debris removal within DFO's restricted activity timing window, should it be required, are not described. Supplementary information is required to support the characterization of potential Project effects to fish and fish habitat and to assess whether further mitigation measures may be required.	
Effects of the Environment on the Project					
IR1-67	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 6.6.2	EIS Chapter 6, Section 6.6.2 EIS Chapter 6, Table 6.43 and 6.44	The EIS Guidelines require the proponent to describe local conditions and natural hazards that could adversely affect the Project and how this could result in effects to the environment. The EIS identifies, in general terms, local conditions and natural hazards that could have adverse effects on the Project and lists potential accidents and malfunctions that could occur as a result of effects of the environment on the Project. The EIS does not include specific details regarding potential environmental effects to VCs resulting from effects of the environment on the Project and the mitigation measures listed are not verifiable. Additionally, no rationale is provided for how the proponent arrived at conclusions with respect to the probability and magnitude of potential effects (Table 6.43) or the evaluation of potential risk to the Project and potential significance of residual effects on the Project (Table 6.44). Supplementary information is required to support the characterization of potential effects of the environment on the Project and any resulting adverse effects to VCs.	a) For each local condition, natural hazard, or event considered, describe potential effects to VCs and describe specific and verifiable mitigation measures and contingency measures that will be implemented to address any potential adverse effects. b) Describe the methodology used to derive the probability of occurrence and magnitude determinations included in Table 6.43, and provide a rationale for the conclusions with respect to the probability and magnitude for each potential accident and malfunction that could result. c) Describe the methodology used to evaluate the potential risk to the Project of environmental conditions/hazards/events and potential residual effects on the Project, as presented in Table 6.44. Provide a rationale for the conclusions presented with respect to the evaluation of potential risk to the Project and residual effects of the environment on the Project.
IR1-68	Impact Assessment Agency of Canada Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.6.2	EIS Chapter 6, Section 6.2.4.1.1 and 6.6.2.2	The EIS Guidelines require the proponent to describe local conditions and natural hazards that could adversely affect the Project, including flooding and ice jams and consideration of the long-term effects of climate change, and how this could result in effects to the environment. The proponent is also required to provide details of planning, design, and construction strategies intended to minimize the potential effects of the environment on the Project. The EIS notes that, should ice jams result in a threat to the integrity of Project components due to flooding and scouring of banks, feasible methods to break up ice jams would be considered and contingency measures would be coordinated with Indigenous communities and local law enforcement. It is unclear what "feasible methods" and contingency	a) Describe specifically what "feasible methods" to breakup ice jams would be implemented to minimize potential adverse effects to VCs. b) Describe examples of contingency measures that will be coordinated with Indigenous groups and local law enforcement should flooding occur that may compromise the use or safety of the ASR. c) Provide a rationale for why MI chose to design bridges and culverts to accommodate 1:50 year flood events, whether potential effects of climate change on flooding were considered, and how this capacity will be sufficient to

				measures would be implemented to minimize potential environmental effects associated with flooding and ice jams. The EIS indicates that bridges and culverts have been designed to accommodate 1:50 year flood events. No rationale is provided for why this design standard was chosen or whether culvert and bridge designs took into account the potential effects of climate change, such as potentially worse and more frequent flooding events. MSCN also expressed concerns regarding whether a design to accommodate 1:50 year flood events would be sufficient to protect their community and traditional resource use areas from flooding. Supplementary information is required to support the characterization of potential effects of the environment on the Project and any resulting adverse effects to VCs, and to determine whether further mitigation or contingency measures may be required to address any adverse effects.	minimize the potential effects on MSCN's and other local Indigenous communities' traditional resource use areas and communities from flooding in areas where bridges and culverts are to be constructed.
IR1-69	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.6.2	EIS Chapter 6, Section 6.6.2.6	The EIS Guidelines require the proponent to describe local conditions and natural hazards that could adversely affect the Project, including consideration of the long-term effects of climate change, and how this could result in effects to the environment. The proponent is also required to provide details of planning, design, and construction strategies intended to minimize the potential effects of the environment on the Project. While the EIS indicates that terrain mapping has been conducted for the area of the Project, no information regarding how permafrost conditions and terrain stability, including active layer thickness, will be assessed within the ASR alignment prior to and during construction or how stability will be monitored is provided. The EIS also describes several road design features that are anticipated to minimize potential effects to permafrost, thereby limiting potential effects of permafrost thaw to the Project. Should areas of permafrost thaw and subside following construction, these would be addressed with road maintenance. The EIS does not explain how the road design features proposed would act to limit potential adverse effects of the Project to permafrost, especially considering potential warming and permafrost thaw associated with climate change. The EIS also does not provide details regarding road maintenance activities that would be used to address any areas of permafrost thaw and subsidence or the potential effects thereof.	a) Describe the geotechnical investigations that will be conducted prior to and during construction with respect to permafrost and provide information on MI's plans to address uncertainties with respect to active layer thickness and terrain stability to support the final design of Project components. b) Describe the follow-up and monitoring plan that will be implemented at each Project phase to assess the validity of predictions with respect to the effect of permafrost on the Project, the effect of the Project on permafrost, the effectiveness of mitigation measures, and whether further mitigation or contingency measures may be required. c) Provide additional detail regarding how the road design features described would limit potential effects of the Project to permafrost. d) Describe potential adverse effects to VCs that may occur should subsidence or failure of the Project occur due to permafrost thaw. Describe the maintenance activities that would be required to address any damage to the Project and any associated effects to VCs from these maintenance

				Additionally, potential adverse effects to VCs that could result should permafrost thaw and subsidence occur are not described. Supplementary information is required to support the characterization of potential effects of the environment on the Project and potential effects to VCs that may be adversely affected by road failure in the event of permafrost thaw.	activities. Describe mitigation and/or contingency measures that will be implemented to mitigate any adverse effects identified.
Cumulative Effects					
IR1-70	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments, General Baseline Study 2019 Report Pimicikamak Okimawin – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency	EIS Guidelines Part 2, Section 5.1 and 6.6.3	EIS Chapter 1, Section 1.2.3 EIS Chapter 2, Section 2.1.3 EIS Chapter 6, Section 6.1.11.3.8, 6.6.3.1.1, 6.6.3.1.2, 6.6.3.1.3, and 6.6.3.2 EIS Chapter 6, Table 6.46	The EIS Guidelines require the proponent to identify and assess the Project's potential cumulative effects to VCs. For each VC, the proponent is required to assess the cumulative effects by comparing the future scenario with and without the Project. The EIS describes several past, present, and future physical activities that were included in the cumulative effects assessment (CEA). The CEA did not consider past, present, and future: • recreational use and tourism (e.g. ATV use; camping; non-Indigenous hunting, fishing, trapping, and gathering; and lodges) in the Project footprint, LAA, and RAA; • a potential increase in the volume and duration of recreational use with increased access facilitated by the ASR; • commercial forestry operations - although there are currently no active commercial forestry operations, the Hayes River and Boreal Shield Forest Management Sections are within the RAA and may become active in the future; • potential mines or mineral/metal exploration projects other than the diamond exploration claim owned by Altius Resources Inc. referenced in the EIS, including those noted in submissions from MSCN and GLFN and described in the EIS; and • induced developments that may occur as a result of construction and operation of the Project, such as mines, exploration projects, hydroelectric facilities, and transmission lines, including those noted in submissions from MSCN and GLFN and described in the EIS. With respect to other potential road projects, the EIS indicates that at this time the Province of Manitoba has no plans to proceed with Provincial Road 373 to Wasagamack (Project 2) and Anderson Junction to Bunibonibee (Project 5) that would link the proposed Project to the ASR	a) Include all past, present, and reasonably foreseeable future physical activities, including consideration of those noted in the context piece, in the CEA for the Project and provide a description of any associated cumulative effects. b) Describe measures that will be implemented to mitigate adverse cumulative effects to VCs from the activities described in the EIS and question a) and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. Should mitigation measures exist that are outside of the care and control of MI, identify the potential adverse effect and the parties that may have the authority to act. c) Revise the cumulative effects assessment for each VC, including the conclusions made with respect to the significance of potential cumulative effects and the summary of the CEA for each VC presented in Table 6.46, to include the physical activities identified in a) and mitigation measures identified in b). d) Provide evidence or rationale to support the conclusions presented in Table 6.46 with respect to the anticipated duration, magnitude, timing, extent, frequency, reversibility, ecological and social context, significance, and likelihood of potential adverse cumulative effects. e) Provide Table 6.47 or correct the reference to Table 6.47 in the EIS.

				network in Manitoba. However, the EIS notes that MI's long-term objective is to complete the regional transportation network and provide communities in the area of the Project with year-round vehicular access to the provincial road network. Based on this information, it would seem that, while there are currently no plans to proceed with Project 2 and Project 5 in the near future, construction of these projects may be anticipated in the longer term. As such, the potential cumulative effects of these and other potential future road projects must either be considered in the CEA or it must be clearly described that the CEA is being undertaken in the absence of those projects. It must be clear which project benefits scenario required in IR1-89 (with or without Projects 2 and 5) is applied in the CEA and any adverse effects associated with that scenario must also be considered. Table 6.46 of the EIS provides a summary of the CEA for each VC, including a determination of the significance of any residual cumulative effects. The EIS presents limited or no rationale to support the conclusions presented with respect to the duration, magnitude, timing, extent, frequency, reversibility, ecological and social context, significance, or likelihood of potential effects. The EIS also references a Table 6.47. However, there is no table present in the EIS labelled as "Table 6.47". The EIS indicates that the Indigenous RAA was selected as the spatial boundary to assess VCs identified for the CEA. It is unclear how use of the Indigenous RAA would ensure that potential effects to all VCs are adequately characterized. For instance, the Indigenous RAA may not be sufficiently broad to capture potential downstream effects to water quality and fish and fish habitat. Additionally, the delineation of the RAA may not adequately capture the effects to all potentially impacted Indigenous groups (see IR1-24). A rationale is required to support the use of the Indigenous RAA as the spatial boundary for the CEA. Supplementary information is required to support the characterization of potential cumulative effects of the Project in combination with other physical activities in the region to VCs. A complete characterization of all potential physical activities that could contribute cumulatively to adverse environmental effects is required to ensure that all potential adverse effects have been identified and considered and to determine whether further mitigation may be required.	f) Provide a rationale for the use of the Indigenous RAA as the spatial boundary for the CEA and a description of how use of the Indigenous RAA adequately captures potential cumulative effects to all VCs and considered traditional use areas and/or the asserted traditional territory of all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines. i. Alternatively, revise the spatial boundaries used in the CEA to ensure that potential cumulative effects to all VCs are adequately characterized. Revise the CEA for each VC to account for this change.

IR1-71	Fisheries and Oceans Canada – Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.6.3	EIS Chapter 6, Section 6.6.3.3.2.1, 6.6.3.2.2, and 6.6.3.2.3 EIS Chapter 6, Table 6.46	The EIS Guidelines require the proponent to identify and assess the Project's potential cumulative effects to VCs. The CEA for fish and fish habitat presented in the EIS only includes potential residual Project effects resulting from increased fishing access, and therefore fishing pressure. However, as noted in the EIS, potential residual effects to fish and fish habitat may also result from spills of hazardous materials and/or other deleterious substances. Further, while the proponent anticipates residual Project effects to fish passage and habitat connectivity to be minor, cumulative effects to fish passage and habitat connectivity may result in combination with other past, present, and future physical activities. These potential effects must also be considered in the CEA for fish and fish habitat. In the CEA for migratory birds, the EIS only considers potential residual Project effects resulting from habitat loss/alteration/fragmentation and mortality. However, the EIS notes that residual effects to migratory birds may also result from loss of nests due to vegetation clearing, and increased sensory disturbance and displacement. These potential residual effects must be considered in the CEA for migratory birds. The EIS also does not describe potential adverse effects of past, present, and reasonably foreseeable future physical activities other than the Project that may act cumulatively to cause adverse effects to fish and fish habitat and migratory birds, indicating that other activities or projects that could overlap with the proposed Project do not have the potential to result in cumulative adverse effects that would require further mitigation. Other past, present, and reasonably foreseeable future physical activities, such as mining exploration and potential future development of mines, could result in adverse effects to fish and fish habitat and migratory birds, including habitat alteration/loss, sensory disturbance, and the potential release of deleterious substances. These potential adverse effects must be described to assess the significance of potential cumulative effects to fish and fish habitat and migratory birds. With respect to potential cumulative effects to species at risk, it is unclear which potential residual Project effects were considered in the CEA as no potential effects of the Project are summarized. The CEA must include all potential residual adverse effects to all species at risk resulting from the	a) Summarize the residual effects to fish and fish habitat, migratory birds, and species at risk resulting from the Project, following the implementation of mitigation measures, even if effects are anticipated to be minor. i. With respect to species at risk, ensure that all potential residual Project effects are considered for each species individually. b) Describe potential adverse effects of all past, present, and reasonably-foreseeable future physical activities that may act cumulatively with the Project to result in adverse effects to fish and fish habitat, migratory birds, and species at risk, including the activities listed in the EIS and those activities referred to in IR1-70. i. With respect to species at risk, ensure that potential effects are described individually for each species. c) Describe mitigation measures that will be implemented to address any cumulative effects identified in b) and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. d) Update the conclusions presented in the cumulative effects assessment for fish and fish habitat, migratory birds, and species at risk, including the assessment of the significance of cumulative effects and the summary of effects presented in Table 6.46, to consider the potential effects and mitigation measures identified in b) and c).

				Project; a summary of the effects considered in this assessment would aid in ensuring that all relevant potential effects are considered. The EIS does not describe potential adverse effects of past, present, and reasonably foreseeable future physical activities other than the Project that may act cumulatively to cause adverse effects to species at risk, indicating that other activities or projects that could overlap with the proposed Project do not have the potential to result in cumulative adverse effects that would require further mitigation. Other past, present, and reasonably foreseeable future physical activities, such as mining exploration and potential future development of mines, could result in adverse effects to species at risk, including habitat alteration/loss, sensory disturbance, and the potential release of deleterious substances. These potential adverse effects must be described for each species at risk to assess the significance of potential cumulative effects. As each species may be affected differently, potential effects must be described for each species individually. As described above (see IR1-70), connection of the Project to the broader provincial road network could result in induced developments or increased access to areas important for boreal woodland caribou habitat. As caribou prefer undisturbed habitat, this could result in adverse effects to caribou populations and must be considered in the CEA. Supplementary information is required to support the characterization of potential cumulative effects of the Project in combination with other past, present, and future physical activities in the region to fish and fish habitat, migratory birds, and species at risk, and to determine whether further mitigation may be required.	
IR1-72	Transport Canada – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical	EIS Guidelines Part 2, Section 6.6.3	EIS Chapter 6, Section 6.5.9.1.1 and 6.6.3.2.4 EIS Chapter 6, Table 6.46	The EIS Guidelines require the proponent to identify and assess the Project's potential cumulative effects to VCs. With respect to potential cumulative effects to Indigenous peoples, the EIS describes potential benefits of the Project but does not include potential adverse residual effects of the Project in the CEA. As noted in the EIS, adverse residual effects may include the ability of Indigenous peoples to practice traditional hunting, fishing, trapping, and gathering, leading to a potential reduction in food supply and culturally important species; reduced access to travel routes; reduced trapping income; effects to heritage resources; and effects to Indigenous health.	a) Summarize the anticipated residual effects to Indigenous peoples from the Project, following the implementation of mitigation measures. Ensure that all potential residual Project effects are considered, including potential effects to the ability of Indigenous peoples to practice traditional hunting, fishing, trapping, and gathering; access to travel routes; trapping income; heritage resources; and Indigenous health. b) Describe potential adverse effects of all past, present, and reasonably foreseeable future physical activities that may

	Review Comments			The EIS does not describe potential adverse effects of past, present, or reasonably foreseeable future physical activities other than the Project that may act cumulatively to cause adverse effects to Indigenous peoples, indicating that other activities or projects that could overlap with the proposed Project do not have the potential to result in cumulative adverse effects that would require further mitigation. Other past, present, or reasonably foreseeable future physical activities, such as mining exploration and potential future development of mines, could affect Indigenous peoples, including navigation and the ability of Indigenous peoples to practice traditional use activities. These potential adverse effects must be described to assess the significance of potential cumulative effects to Indigenous peoples. Supplementary information is required to support the characterization of potential cumulative effects of the Project in combination with other physical activities in the region to Indigenous peoples and to determine whether further mitigation may be required.	act cumulatively with the Project to result in adverse effects to Indigenous peoples, including the activities listed in the EIS and those activities referred to in IR1-70. c) Describe mitigation measures that will be implemented to address any cumulative effects identified in b) and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. d) Update the conclusions presented in the cumulative effects assessment for Indigenous peoples, including the assessment of the significance of cumulative effects and the summary of effects presented in Table 6.46, to consider the potential effects and mitigation measures identified in b) and c).
Environmental Management Plans and Environmental Protection Measures					
IR1-73	Impact Assessment Agency of Canada	EIS Guidelines Part 2, Section 5.1 and 6.4	EIS Chapter 8, Section 8.2.1	The EIS Guidelines require the proponent to describe the Project's environmental protection plan and its environmental management system, through which the proponent will deliver this plan. The plan must provide an overall perspective on how potential adverse effects would be minimized and managed over time. The EIS Guidelines also list Indigenous groups that the proponent must consider in its effects assessment with respect to the Project and with which the proponent is expected to strive towards developing a productive and constructive relationship based on on-going dialogue. The EIS indicates that Environmental Management Plans (EMPs) for construction and operation of the Project will be finalized during the detailed design and construction phase. While these plans may not be finalized at the time of the submission of the EIS and/or IR responses, an example of a plan from a Project of a similar nature (e.g. Project 1 or Project 4) would be useful to understand what provisions would be included in this plan. With regard to the development of the EMPs, the EIS indicates that MI will consider community input from GLFN, BCN, and MSCN and that technical	a) If available, provide an example(s) of EMPs used for a project of a similar nature to the Project (e.g. Project 1 or Project 4). Describe what aspects of the plan(s) would be similar to the EMPs developed for the Project and what Project-specific provisions may be added. Alternatively, describe measures and provisions that will be included in the EMPs for the Project. b) Describe whether and, if so, how MI plans to provide the opportunity for all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines to be involved in the development of EMPs. c) Describe whether Indigenous groups will be invited to participate on technical committees to plan for and respond to the environmental management requirements of the Project.

				committees will be established to plan for and respond to Project environmental management requirements. It is unclear whether and how MI will provide the opportunity for all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines to be involved in the development of EMPs and whether Indigenous groups will be invited to participate on technical committees. Supplementary information is required to support the Agency's understanding of the EMPs for the Project and to determine if the approach proposed in these plans will be adequate to mitigate and manage potential adverse effects to VCs.	
IR1-74	Transport Canada – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.4	EIS Chapter 8, Section 8.3.2 EIS Chapter 8, Appendix 8-2, Environmental Protection Procedures 2 and 3	The EIS Guidelines require the proponent to describe the Project's environmental protection plan and its environmental management system through which the proponent will deliver this plan. The plan must provide an overall perspective on how potential adverse effects would be minimized and managed over time. The EIS indicates that, in addition to the mitigation measures outlined in MI's Environmental Protection Procedures (EPs) and Environmental Protection Specifications, conditions will be included in each construction contract that will be specific to the work being conducted. The EIS also indicates that EPs are reviewed and revised annually and that major changes or additions will be forwarded to local communities, Manitoba Sustainable Development, and the Agency once finalized. As EPs are being proposed in the EIS as mitigation measures to address potential adverse effects of the Project to VCs, it is important for the Agency to understand how changes to EPs may affect the conclusions presented in the EIS with respect to potential environmental effects, including residual and cumulative effects, mitigation, monitoring, and follow-up, which will inform the Environmental Assessment Report for the Project. It is also unclear how Indigenous groups will be involved or will be provided the opportunity to provide input into revisions to EPs, particularly EPs that may pertain to potential effects to Indigenous groups. Supplementary information is required to support the characterization of the environmental protection plan and its environmental management system for the Project and to determine whether further mitigation measures may be required.	a) Describe the conditions that will or may be included in construction contracts. If specific conditions have not been developed at this time, provide examples of conditions that will likely be or are typically included (e.g. conditions that were included in EMPs for Project 1 or Project 4). b) If revisions have been made to EPs from what is currently described in the EIS, provide updated EPs and/or highlight areas where revisions have been made. Describe how any changes to EPs may affect the conclusions presented in the EIS with respect to potential environmental effects, including residual and cumulative effects, mitigation, monitoring, and follow-up. i. Describe how Indigenous groups were/will be involved in current and future revisions to EPs, as they pertain to the Project. ii. Describe whether, and if so how, annual updates to EPs will be communicated to Indigenous groups and the public.

				See Annex I for related advice.	
Follow-up, Monitoring, and Reporting					
IR1-75	Fisheries and Oceans Canada – Project 6 Technical Review Comments Environment and Climate Change Canada – Project 6 Technical Review Comments Health Canada – Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical	EIS Guidelines Part 2, Section 5.1, 8.1, and 8.2	EIS Chapter 3, Section 3.5 EIS Chapter 8, Table 8.2 EIS Chapter 9 EIS Appendix C-2, Section 5.2.3	The EIS Guidelines require the proponent to present a preliminary follow-up program and preliminary environmental monitoring program for all phases of the Project and lists aspects of these programs that must be described in the EIS. While the EIS describes the objectives of the follow-up and monitoring programs for the Project, details are not provided regarding: • what the follow-up and monitoring programs will consist of; • where and when follow-up and monitoring programs will be implemented; • which VCs and aspects of VCs the proponent plans to monitor to verify predicted Project effects and to ensure proposed mitigation measures are effective; or • how effects to VCs will be monitored, including a description of the parameters to be monitored and details of the monitoring program. The EIS indicates that it is the proponent's view that post-construction monitoring is not required for the Project. Follow-up and monitoring must occur during all phases of the Project where there is uncertainty regarding the predicted effects or the effectiveness of mitigation measures. Conducting follow-up and monitoring programs only during construction may not be sufficient as adverse Project effects may result during Project operation and maintenance. Table 8.2 of the EIS identifies, in a general sense, environmental component monitoring programs that have been or will be developed and associated plans, protection procedures, and protection specifications. No Indigenous health components are considered in Table 8.2 and no noise, air quality, or traditional land use monitoring is proposed, including baseline monitoring or monitoring for potential Project effects. Certain environmental components, such as air quality, may influence Indigenous health and the lack of baseline data reduces certainty with respect to	a) Describe the planned follow-up and monitoring program(s) to be implemented during all phases of the Project. Refer to the EIS Guidelines for details regarding the information that must be provided in the description. i. Ensure that monitoring and follow-up plans are described for all VCs, including Indigenous health, noise, air quality, water quality, and Indigenous traditional land use. ii. Ensure that follow-up and monitoring plans demonstrate consideration of the fact that construction of the Project is not expected to begin until 2030 (refer to IR1-35). b) With respect to reporting of the results of the follow-up and monitoring program(s), indicate whether results will be shared with all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines who may have an interest in the Project. c) Describe opportunities that will be offered to Indigenous communities to be involved in the development, review, and implementation of follow-up and monitoring plans (e.g. Indigenous community based monitoring). i. If requests of this nature have already been expressed to MI by Indigenous groups, indicate which groups have expressed interest in being involved in follow-up and monitoring and the nature of their proposed involvement.

	Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments			potential Project effects to health. Due to a lack of quantitative baseline data, monitoring plans must be developed and described for potential Project effects to Indigenous health, noise, air quality, water quality, and Indigenous traditional land use in order to verify predictions, monitor the effectiveness of mitigation measures, and determine whether contingency measures may be required. The EIS notes that results from the follow-up and monitoring programs will be provided as appropriate to community liaison and advisory committees, stakeholders, local Indigenous communities (i.e. MSCN, BCN, GLFN, and God's Lake Narrows Northern Affairs Community), and federal and provincial authorities. It is not clear if all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines who may have an interest in the Project will be provided with the results of follow-up and monitoring programs. Information is also not provided regarding opportunities that will be offered to Indigenous groups to be involved in the development and implementation of the follow-up and monitoring program(s). For instance, MSCN has requested that MI develop an Indigenous community-based monitoring program for the Project, in collaboration with communities to ensure that resources and areas of importance to Indigenous peoples are protected. Information on the proposed follow-up and monitoring program for the Project in all phases is required to assess how the proponent plans to verify its predictions with respect to potential environmental effects of the Project to VCs, cumulative effects, assess the effectiveness of mitigation measures, and determine whether the program(s) proposed may be adequate.	
Indigenous Traditional Knowledge and Land Use Plans					
IR1-76	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1	EIS Chapter 1, Section 1.4.4 EIS Chapter 5, Section 5.2.1	The EIS Guidelines list Indigenous groups that the proponent must consider in its effects assessment with respect to the Project. Ten Indigenous communities are listed in the EIS. The EIS describes that the Government of Manitoba signed an agreement with Wabanong Nakaygum Okimawin First Nations (WNO Accord), which consists of 21 member nations including BCN, Garden Hill First Nation, GLFN, MSCN, Norway House Cree Nation, Red Sucker Lake First Nation, St. Theresa Point First Nation, Wasgamack First Nation, and the MMF. Under the WNO Accord, individual member Nations are to develop Traditional	a) Indicate whether any of the groups listed in Part 2, Section 5.1 of the EIS Guidelines have, since the finalization of this EIS, created or are in the process of creating Traditional Area Land Use Plans as they related to the WNO Accord. i. Describe how MI has or will consider information presented in these Traditional Area Land Use Plans as they relate to the Project.

	Manto Sipi Cree Nation – May 28, 2019 Meeting with the Agency, Project 6 Technical Review Comments, General Baseline Study 2019 Report			Area Land Use Plans. GLFN and MSCN indicated that they have been working on land use plans, including for the area of the Project, and will provide a copy to MI, once complete. The EIS does not describe how plans that are currently in development, or are finalized prior to construction of the Project will be considered with respect to the Project and the EIS. Supplemental information is required to support the proponent's characterization of how views expressed and information provided by Indigenous peoples has been and will be considered with respect to the Project.	
IR1-77	Manitoba Metis Federation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 1, Section 4.2.2 EIS Guidelines Part 2, Section 5.1	EIS Chapter 5, Section 5.2.4.2	The EIS Guidelines require the proponent to incorporate into the EIS the community and Indigenous traditional knowledge (TK) to which it has access or that is acquired through engagement with Indigenous groups, including all groups listed under Part 2, Section 5.1 of that document, and to integrate Indigenous TK into all aspects of the assessment of potential Project effects. Agreement should be obtained from Indigenous groups regarding the use, management, and protection of their existing TK during and after the environmental assessment. The EIS indicates that TK was collected from MSCN, GLFN, BCN, and God's Lake Northern Affairs Community. Concerns were expressed by MSCN regarding how TK collected from their community was used to inform the selection of temporal and spatial boundaries used for the assessment of potential Project effects, particularly the temporal boundaries of the cumulative effects assessment. Concerns have also been expressed by the MMF that to date MI has not made attempts to gather traditional Métis knowledge with respect to the Project. Pimicikamak Okimawin indicated that TK work with their community was completed by MI for the Project between July 2009 and June 2010. However, it is unclear whether and if so how this information was considered in the EIS. It is also unclear whether TK was collected or whether attempts were made to collect TK from other Indigenous communities listed in Part 2, Section 5.1 of the EIS Guidelines and, if so, how information collected from these groups was considered in the EIS. MSCN also expressed concerns that TK knowledge may conflict with scientific, engineering, or technical knowledge, and how any conflicting	a) Describe how Indigenous TK was used to inform the information and assessments presented in the EIS, including the selection of temporal and spatial boundaries. b) Clarify whether TK has been collected and incorporated into the EIS from all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines. i. If so, describe how and where TK from all groups was used to inform the information and assessments presented in the EIS. ii. If not, provide a rationale for why this information was not collected from all groups and/or indicate when this information will be collected from groups and incorporated into the EIS. c) If present, highlight areas where the conclusions presented in the EIS drawn from scientific, engineering, and technical knowledge are inconsistent with the conclusions drawn from traditional knowledge and describe how each perspective was considered and represented in the EIS, including in the cumulative effects assessment.

				information may affect the conclusions presented in the EIS. The EIS does not speak to areas where scientific, engineering, or technical knowledge may conflict with Indigenous traditional knowledge. The EIS also does not describe whether agreement was obtained from Indigenous communities regarding the use, management, and protection of their existing TK information both during and after the environmental assessment. Supplementary information is required to understand how Indigenous TK collected in relation to the Project has been incorporated into the EIS. **See Annex I for related advice.**	
Current Use of Lands and Resources for Traditional Purposes by Indigenous Groups					
IR1-78	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.3.4	EIS Chapter 6, Section 6.3.4	The EIS Guidelines require the proponent to describe and analyze how changes to the environment caused by the Project may affect Indigenous peoples, including the current use of lands and resources for traditional purposes, Indigenous health and socioeconomic conditions, and physical and cultural heritage. The EIS Guidelines also direct the proponent to assess how changes to the environment caused by the Project may affect the cultural value or importance associated with traditional uses or areas. The EIS does not describe potential Project effects to Indigenous peoples' ability to access preferred hunting, fishing, trapping, gathering, or cultural sites, or travel routes, including portages. Access to lands and waters is essential for the use of lands and resources for traditional purposes, access to physical and cultural heritage sites, maintenance of health and socio-economic conditions, and the exercise of Aboriginal or Treaty rights. Supplementary information is required to support the proponent's characterization and analysis of potential Project effects to Indigenous peoples.	a) Describe potential Project effects and proposed mitigation measures to address any potential adverse Project effects to Indigenous peoples' ability to access preferred hunting, fishing, trapping, gathering, and cultural sites, and travel routes, for each Indigenous group listed in Part 2, Section 5.1 of the EIS Guidelines, including: i. when, where, and the duration of changes in access during all Project phases; and ii. how changes in access to preferred areas may affect Indigenous peoples' ability to practice traditional use activities and exercise their Aboriginal or Treaty rights. b) Describe measures that will be implemented to mitigate any potential adverse effects identified in a), and follow-up and monitoring that will be conducted. c) Revise the residual and cumulative effects assessments for Indigenous peoples to include potential Project effects to Indigenous peoples' ability to access preferred hunting, fishing, trapping, gathering, and cultural sites.

IR1-79	Transport Canada – Project 6 Technical Review Comments God's Lake First Nation – June 5, 2019 Meeting with the Agency Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.4, 6.4.9.1.2, and 6.4.9.2	The EIS Guidelines require the proponent to describe any changes or alterations resulting from the Project to access to areas used for traditional purposes by Indigenous peoples, including changes to waterways that may affect navigation. The EIS does not provide information regarding potential Project effects to navigation on waterways by Indigenous peoples. While the EIS indicates that measures will be implemented to mitigate any adverse Project effects to navigation, specific details of these mitigation measures are not provided. As the Project will involve installation and operation of permanent and temporary watercourse crossings and related infrastructure in or near watercourses/waterbodies currently used by Indigenous peoples, navigation could be adversely effected, as noted by GLFN and BCN. Transport Canada notes that, as bridges, culverts, and temporary water crossings are not minor works, specific details regarding proposed mitigation measures are required to assess their potential effectiveness and to ensure that Project and site specific factors were considered when determining appropriate navigation safety and access mitigation measures through navigable waters. GLFN also expressed concerns regarding potential Project effects to an approximately three kilometre long portage located along the ASR alignment that is used by their community. Supplementary information is required to support the proponent's characterization of potential Project effects to Indigenous peoples and navigation, and to assess the anticipated effectiveness of proposed mitigation measures. **See Annex I for related advice.**	a) Describe potential Project effects and mitigation measures to address any potential adverse Project effects to navigation by Indigenous peoples on watercourses/waterbodies for all phases, including recognized portage routes. This must include a characterization of the location, timing, and duration of potential effects, and consider input from all potentially affected Indigenous communities. b) Demonstrate how Project and site-specific factors were considered when determining appropriate navigation safety and access mitigation measures through navigable waters. c) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to include potential effects to navigation. d) Describe follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects with respect to Indigenous navigation.
IR1-80	Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency God's Lake First Nation – 2017 Proponent-led	EIS Guidelines Part 2, Section 6.3.4 and 6.5	EIS Chapter 6, Section 6.3.4 and 6.5.9	The EIS Guidelines require the proponent to describe potential Project effects to Indigenous peoples including the current use of lands and resources for traditional purposes and any residual effects following the implementation of mitigation measures. With regard to potential residual effects to Indigenous peoples and the anticipated significance of those effects, the EIS concludes that Indigenous peoples will be able to easily adapt to Project effects that may affect their ability to hunt, trap, fish, gather, and access areas used for traditional, cultural, and recreational purposes with some adjustments. It is unclear	a) Provide a clear rationale for the conclusion that Indigenous peoples will be able to easily adapt to Project effects that may affect their ability to hunt, trap, fish, gather, and access areas used for traditional, cultural, and recreational purposes with some adjustments. Demonstrate how Indigenous TK was used to inform this conclusion, including consideration of site preferences. i. Describe engagement activities that have taken place with potentially affected Indigenous groups

	Community Meeting			whether this conclusion and its underlying assumptions were confirmed with all potentially affected Indigenous groups. Viewing all traditional use and cultural sites within the RAA as equally important and easily accessible without consideration of Indigenous peoples' site preference and ability does not allow for a full understanding of potential Project effects to Indigenous peoples and their use of and connection with the landscape. For instance, GLFN noted the importance of maintaining community access to areas currently used to harvest medicinal and other valued plant species, and indicated that members of the community have differential abilities to locate and switch to alternative locations for plant harvest. The EIS also indicates that residual effects to areas used for the harvest of medicinal plants by Indigenous peoples are anticipated to be reversible over a long period as areas disturbed by the Project are reclaimed. However, as indicated elsewhere in the EIS, there are currently no plans to decommission the proposed ASR and other permanent Project components that will be required for operation and maintenance of the Project. Supplementary information is required to support the proponent's characterization of potential residual Project effects, and the anticipated significance of those effects, to Indigenous peoples. **See Annex I for related advice.**	to confirm this conclusion, including a description of the outcome of these engagement activities. ii. If these engagement activities have not taken place, provide a rationale for why not and indicate when and how MI plans to engage with all Indigenous groups on this topic. b) Should Indigenous groups not agree that they will be able to easily adapt to Project effects with some adjustments and/or should monitoring indicate that groups are not able to locate suitable alternative locations to practice traditional use activities, describe mitigation and/or contingency measures that will be implemented to address potential effects to Indigenous peoples. i. Revise the residual and cumulative effects assessments with respect to Indigenous peoples, including the assessment of the anticipated significance of effects to Indigenous peoples, to reflect the fact that Indigenous peoples may not be able to adapt to residual Project effects. c) If reclamation of both temporary and permanent Project components was used for the residual effects assessment for medicinal plant harvesting by Indigenous peoples, revise the residual and cumulative effects assessments to reflect the fact that areas disturbed by permanent Project infrastructure, including the ASR and components required for Project operation and maintenance, will not be reclaimed.
Physical and Cultural Heritage					
IR1-81	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.1.9	EIS Chapter 3, Section 3.3.5 EIS Chapter 5, Table 5.8 EIS Chapter 6, Section 6.1.9.4,	The EIS Guidelines require the proponent to provide baseline information for physical and cultural heritage, including any structure, site, or thing of archaeological, paleontological, historical, or architectural significance to Indigenous peoples. With respect to potential Project effects to physical and cultural heritage, the EIS focusses on the requirements of the Manitoba *Heritage Resources Act* and indicates that Heritage Resource Impact Assessments (HRIA) were conducted for the Project and will be completed for potential quarry sites	a) Describe the involvement of Indigenous communities in the HRIAs conducted for the Project to date and if and how MI intends to include Indigenous peoples in future HRIAs and other physical and cultural heritage resource monitoring for the Project. Describe which communities were involved and the extent of their involvement. b) Provide the HRIA report prepared by AMEC Foster Wheeler Environment and Infrastructure for the Project that is

	Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments		6.4.9.4, and 6.5.9.4	and borrow areas with high and moderate heritage potential. It is unclear whether Indigenous communities were or will be involved in the HRIAs already conducted for the Project or future HRIAs. The EIS also references information contained within an HRIA report prepared by AMEC Foster Wheeler Environment and Infrastructure for the Project. The HRIA report referenced is not provided in the EIS. It is unclear whether Indigenous monitors will be involved during construction of the Project to identify any undocumented physical and cultural heritage resources/sites of importance to Indigenous peoples. The EIS indicates that effects to physical and cultural heritage of Indigenous peoples should be reversible with a Heritage Resources Artifact Recovery Program. The details of this program have not been provided, therefore the adequacy of this program for protecting physical and cultural heritage resources of importance to Indigenous peoples cannot be assessed. Concerns have also been expressed by Indigenous communities with respect to the conclusion that effects are reversible, as they feel that the EIS underestimates the cultural significance of the Project footprint, LAA, and RAA. Supplementary information is required to support the proponent's characterization of potential Project effects to physical and cultural heritage resources of importance to Indigenous peoples including all Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines. **See Annex I for related advice.**	referenced in the EIS. Discuss with the Agency prior to submission if there are confidentiality concerns. c) Describe monitoring that will be conducted during construction of the Project for any unanticipated and/or undocumented sites or resources with respect to physical and cultural heritage resources/sites of importance to Indigenous peoples and what actions will be taken, should resources be identified. i. Describe whether, and if so how, Indigenous groups will be involved in follow-up and monitoring, particularly with respect to monitoring for any undocumented physical and cultural heritage resources or sites of importance. d) Describe in detail what the Heritage Resources Artifact Recovery Program will consist of, including any proposed mitigation measures, and provide a clear rationale for how this program will reverse any potential effects to physical and cultural heritage resources of importance to Indigenous peoples. i. Describe if and how Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines will be engaged in this program.
Communication with Indigenous Groups					
IR1-82	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.3.4	EIS Chapter 3, Section 3.4.1.3 EIS Chapter 6, Section 6.4.9.1	The EIS Guidelines list Indigenous groups that have the potential to be most affected by the Project and with whom the proponent is required to strive towards developing a productive and constructive relationship based on on-going dialogue in order to support information gathering and the effects assessment. The proponent is also required to describe potential adverse effects of the Project to Indigenous peoples, including to the current use of lands and resources for traditional purposes, health and socioeconomic conditions, and any changes to the environment that may affect cultural value or importance associated with traditional uses or areas affected by the project.	a) With respect to all potentially disruptive Project activities that may result in adverse effects to indigenous peoples, describe: i. which Indigenous communities MI and/or its contractors will notify prior to carrying out these activities; ii. the mechanism by which Indigenous groups may request to be notified of Project activities and how MI and/or its contractors will respond to these requests;

				The EIS indicates that Indigenous communities will be informed by the construction contractor through local radio and/or posted material in the community prior to quarry operation in areas where Indigenous peoples are likely to be present. No further details are provided regarding which communities will be informed, how far in advance of these Project activities communities will be notified, and how MI will document areas where Indigenous peoples are likely to be present. Additionally, Project construction, operation, and maintenance will also involve other disruptive activities that communities may wish to be informed of. It is unclear whether Indigenous groups will be notified prior to conducting potentially disruptive Project activities other than those associated with quarry operation. As quarry operation and other potentially disruptive Project activities may adversely affect Indigenous peoples, such as the current use of lands and resources for traditional purposes, health and socioeconomic conditions (e.g. sensory disturbance, hazards associated with explosives and blasting, etc.), and cultural value of areas, further details regarding MI's proposed communication plan with Indigenous groups are required to assess the anticipated effectiveness of this mitigation measure. Supplementary information is required to support the proponent's characterization of proposed measures to mitigate adverse effects to Indigenous peoples. **See Annex I for related advice.**	iii. how far in advance Indigenous groups will be notified of these activities, including a clear rationale for how this will allow sufficient time for communities to factor these potential disruptions into their plans for traditional use activities; iv. how MI and/or its contractors will document and be informed of areas where Indigenous peoples are likely to be present and/or currently practicing traditional use activities; v. the mechanism by which Indigenous groups may express concerns regarding the timing of potentially disruptive Project activities and how MI and/or its contractors will respond to these concerns; and b) If MI and/or its contractors do not plan to notify all groups listed in Part 2, Section 5.1 of the EIS Guidelines, provide a clear rationale for why.
Indigenous Health and Socioeconomic Conditions					
IR1-83	Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1, 6.1.9, and 6.3.4	EIS Chapter 6, Section 6.1.9.2 and 6.1.9.3	The EIS Guidelines require the proponent to describe baseline information and potential Project effects to the health and socioeconomic conditions of Indigenous peoples. As noted in IR1-24 and IR1-25, Indigenous groups other than MSCN, BCN, and GLFN may use lands and resources within the Project footprint, LAA, and RAA for traditional purposes. As such, the Project may result in adverse effects to the health and socioeconomic conditions of members of these communities. Supplementary information is required to support the proponent's characterization of potential Project effects to the health and socioeconomic conditions of Indigenous peoples.	a) Based on the baseline information provided in IR1-25, describe for each Indigenous group listed in Part 2, Section 5.1 of the EIS Guidelines: i. potential effects of the Project to Indigenous health and socioeconomic conditions; ii. mitigation measures to address any adverse effects identified; iii. potential residual Project effects to Indigenous health and socioeconomic conditions; iv. potential cumulative effects of the Project with other potential past, present, and reasonably foreseeable future physical activities in the region; and

					v. engagement activities that have taken place or will take place to verify the accuracy of the baseline data presented and the appropriateness of the accommodation/mitigation measures proposed.
IR1-84	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.4	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the health and socioeconomic conditions of Indigenous peoples and the current use of lands and resources for traditional purposes by Indigenous peoples. Although the EIS references the importance of culture and cultural values, the EIS does not present an assessment of potential Project effects to Indigenous peoples' cultural experience on the landscape, including potential changes to spiritual and cultural connections with the affected environment and associated effects to use and well-being. As cultural connection to the land and cultural values are an important component of the current use of lands a resources for traditional purposes by Indigenous peoples and Indigenous health and well-being, potential effects of the Project to Indigenous culture and cultural values must be assessed. MSCN also identified concerns with this omission, including potential Project effects to the quality of use experience and associated changes in cultural practices; human health and community well-being; and individual and community identity resulting from changes to the environment, culture, land use, and intergenerational transfer of knowledge. Supplementary information is required to support the proponent's characterization of potential Project effects to the current use of lands and resources for traditional purposes and the health and socioeconomic conditions of Indigenous peoples.	a) Describe and present an assessment of potential effects of the Project to cultural experience and cultural values of Indigenous peoples, including: i. a description of cultural experience/experiential values identified by each Indigenous group listed in Part 2, Section 5.1 of the EIS Guidelines and potential changes to the environment as a result of the Project that may interact with these; ii. a description of each Indigenous group's views regarding the potential impacts of the Project to community well-being and their cultural landscape; iii. mitigation measures identified by Indigenous groups who may experience these effects, and any commitment made to these mitigation measures; and iv. a clear explanation of the methodology for integrating Indigenous knowledge into this assessment. b) Revise the residual and cumulative effects assessments for Indigenous peoples to include potential Project effects to cultural experience/experiential values.
IR1-85	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comment Bunibonibee Cree Nation –	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.4.5	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the health and socioeconomic conditions of Indigenous peoples. Indigenous groups, including BCN, MSCN, GLFN, and Pimicikamak Okimawin, have expressed concerns regarding the potential for the Project to facilitate easier access to drugs and alcohol into their communities. In response to this concern, the EIS indicates that these are issues for law enforcement to address and no further information is provided. While mitigation measures to address these potential Project effects may be outside of the care and control of the proponent, the EIS must describe	a) Describe and provide a clear rationale for all conclusions with respect to Project effects to the health and socioeconomic conditions of Indigenous peoples, including all groups listed in Part 2, Section 5.1 of the EIS Guidelines, as a result of potential: i. increased access to drugs and alcohol in communities, facilitated by the Project; ii. increased criminal activity due to an influx of outside workers and/or increased access to drugs and alcohol;

	August 23, 2019 Meeting with the Agency Manto Sipi Cree Nation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments			how changes to the environment caused by the Project may affect the health and socioeconomic conditions of Indigenous peoples, including the potential for increased access to drugs and alcohol as a result of the Project. Based on past experiences from other similar ASR projects, MSCN also expressed concerns regarding the following potential Project effects, which have not been discussed in the EIS: • increased criminal activity; • negative interactions with workers from outside of local Indigenous communities; • increased prevalence and spread of diseases from outside workers; and • increased violence against community members, particularly women. Supplementary information is required to support the proponent's characterization of potential Project effects to the health and socioeconomic conditions of Indigenous peoples. **See Annex I for related advice.**	iii. negative interactions with workers from outside of local Indigenous communities; iv. increased prevalence and spread of diseases from outside workers; and v. increased violence against community members, particularly women. b) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to include any potential adverse effects identified in a).
IR1-86	Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.3.4	EIS Chapter 6, Section 6.2.5.1.5 and 6.3.5	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the health and socioeconomic conditions of Indigenous peoples. The EIS indicates that the Project may increase the risk of wildfires in the Project footprint, LAA, and RAA. The EIS does not describe how an increased risk of wildfires may affect Indigenous community services, such as fire response services and medical services, including the ability of Indigenous community members to access these services and the ability of existing services to accommodate the increased risk of wildfire and associated demands on resources. Supplementary information is required to support the proponent's characterization of potential Project effects to Indigenous health and socioeconomic conditions.	a) Describe potential effects to community services, including fire response and medical services, should the Project result in increased wildfire frequency for each potentially impacted Indigenous group. This must include a description of potential effects to Indigenous peoples' ability to access these services and the capacity of these services to accommodate increased demands that may be associated with the Project. b) Describe mitigation measures that will be implemented to address any adverse effects identified in a) and follow-up and monitoring that will be conducted to confirm predictions, assess the effectiveness of mitigation measures, and monitor for any unanticipated effects. c) Revise the residual and cumulative effects assessments for Indigenous health and socioeconomic conditions to include effects to community services resulting from potential

					increased wildfire occurrences that may be associated with the Project.
IR1-87	Pimicikamak Okimawin – Project 6 Technical Review Comments God's Lake First Nation – Project 6 Technical Review, June Meeting with the Agency Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency	EIS Guidelines Part 2, Section 5.1 and 6.3.4	EIS Chapter 3, Section 3.1.4.14 EIS Chapter 6, Section 6.2.1.3, 6.2.5.1.1, and 6.3.4	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect the socioeconomic conditions of Indigenous peoples, including recreational use, employment, and potential Project benefits. The EIS indicates that recreation areas identified by BCN, MSCN, and GLFN are not anticipated to be adversely affected by the Project as the nearest recreation area is located approximately 700 metres from the ASR. The EIS also indicates that potential Project effects to certain VCs may extend into the LAA, the radius of which extends between two kilometres and 20 kilometres from the ASR, depending on the VC. As such, the Project may result in adverse effects to recreation areas identified by BCN, MSCN, and GLFN. The EIS indicates that Indigenous groups will benefit economically from the Project as MI will require a percentage of construction tenders to be supplied from local content (e.g. equipment, services, employment), including from Indigenous communities should they be interested. No details are provided regarding which communities MI will offer contracts to, which groups have requested contracts, the target percentage of the Project workforce and/or construction tenders to be sourced from Indigenous groups, or training that will be provided to increase opportunities for Indigenous peoples' employment. With regard to the distribution of potential Project benefits, BCN expressed concerns that, although the Project may provide employment and economic benefits to some members of the community, benefits may not be realized by the community as a whole, resulting in further internal economic division. GLFN also expressed concerns that construction/operation of the Project and increased access may lead to a demotion of the status of local Indigenous groups from "remote" to "semi-remote", with an accompanying decrease in government funding for the community. As noted in the EIS, many Indigenous peoples living in local communities in the area of the Project rely on government funding as their primary source of income due	a) Compare the distance of recreation areas directly with the radius of anticipated effects of the Project, to reconcile or describe why recreation areas that are approximately 700 metres away would not experience effects that could extend as far as 2 to 20 kilometres from the Project footprint. b) Should the potential exist for Project effects to overlap with recreation areas identified by Indigenous groups, describe potential effects to these areas. This must include a consideration of potential effects to the physical environment and potential effects to the practice of recreational activities in these areas. c) Indicate which Indigenous communities MI plans to offer contracts to with regard to the provision of local equipment, services, and employment. If this does not include all Indigenous groups listed under Part 2, Section 5.1 of the EIS Guidelines, provide a rationale as to why. d) Indicate the target percentage of the Project workforce and/or construction tenders to be sourced from Indigenous groups. Describe any training opportunities that may be provided to Indigenous peoples to increase opportunities for Indigenous peoples' employment, including employment related to construction and operation of the Project. e) Clarify if the construction of the Project would lead to a change from "remote" to "semi-remote" for any Indigenous community. Indicate whether construction/operation of the Project may result in a reduction in government funding for each of the Indigenous groups listed in Part 2, Section 5.1 of the EIS Guidelines. i. If so, describe by how much funding could decrease for each community and describe potential mitigation measures that will be

				to low employment rates. As such, the Project may result in adverse socio-economic effects should it result in a funding decrease. The EIS also states that operation of the Project will result in overall long-term positive effects on local trapping income, as the ASR would increase access to certain areas for trapping activities. Although easier access to certain previously remote areas may be facilitated by the Project, this may not necessarily correlate to increased trapping income. As noted in the EIS, many species previously trapped for income are no longer trapped or trapped less frequently due to very low pelt prices. Supplementary information is required to support the proponent's characterization of potential Project effects to the socioeconomic conditions of Indigenous peoples.	implemented to compensate for this decrease in funding and mitigate for any resulting adverse socio-economic effects. f) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to reflect that the Project: i. may result in potential effects to recreation areas and the practice of recreation activities; ii. may not benefit Indigenous communities as a whole and/or may cause adverse effects by exacerbating economic disparity within communities; iii. may not result in increased trapping income over time; and iv. may result in a decrease in government funding to Indigenous groups currently classified as "remote". g) Discuss how pelt prices are considered in the conclusion that there will be a positive effect on trapping income resulting from the Project and the significance of this positive effect.
IR1-88	Health Canada – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.2.1.1.1 and 6.3.4.5.6	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project may affect Indigenous peoples, including Indigenous health and the current use of lands and resources for traditional purposes, and any resources used for traditional purposes. The proponent is also required to describe any changes to environmental quality or perceived disturbance of the environment that could detract from use of an area or lead to avoidance of an area. With regard to potential Project effects to Indigenous health as a result of effects to country foods, the EIS only describes potential effects related to chemical exposure pathways, effects to the quality of country foods, and related effects to human receptors. MSCN expressed concern regarding the lack of information provided regarding the role of country foods in physical, mental, and spiritual health of Indigenous peoples. The EIS indicates that the quality of country foods and medicinal plants is not expected to be adversely affected by dust from the Project if foods are thoroughly rinsed prior to ingestion. Health Canada notes that this	a) Describe potential Project effects to the availability of and access to country foods of importance for each Indigenous group listed in Part 2, Section 5.1 of the EIS Guidelines, including consideration of: i. the role of country foods from a holistic health perspective that accounts for physical, mental, and spiritual health of individuals and communities; ii. the role of country foods and the practices of collection as a form of intergenerational knowledge and cultural transmission; and iii. the role of country foods in Indigenous food sovereignty as it relates to health, wellbeing, governance, and rights. b) Describe and assess potential Project effects to Indigenous health and the current use of lands and resources for traditional purposes resulting from:

				conclusion does not consider potential contaminants associated with dust. Typical contaminants that may be released from vehicles burning fossil fuels include polycyclic aromatic hydrocarbons, metals, and potentially harmful trace elements. Washing of foods does not necessarily protect human health from contaminants and does not consider the accumulation over time of contaminants in soil and subsequent uptake in plant tissues as a potential pathway of effects. Health Canada also notes that, although the proponent plans to communicate the risk of dust settling on country foods to local Indigenous communities through the Indigenous and Public Engagement Program, limiting recommendations to the rinsing of harvested plants may not be adequately protective of human health. The EIS also does not consider potential adverse effects of the Project on the current use of lands and resources by Indigenous peoples due to potential avoidance of certain areas currently used for the harvest of country foods. Even if resources are deemed safe for consumption by MI, the use/harvest of country foods may be adversely affected or altered due to perceived disturbance of the environment or fear of contamination of country foods. This must be considered in the assessment of potential Project effects to Indigenous peoples. Supplementary information is required to support the proponent's characterization of potential Project effects to Indigenous health and the current use of lands and resources for traditional purposes by Indigenous peoples.	i. the deposition of contaminants that may be present in dust onto vegetation, including a description of the types of contaminants potentially present and any potential adverse effects to human health; ii. contaminants from road dust and vehicle emissions accumulating in soil, being taken up by plants, and consumed by human receptors or wildlife that Indigenous peoples may subsequently consume; and iii. potential avoidance of certain areas currently used for the harvest of country foods due to perceived disturbance of the environment or fear of contamination of country foods. c) Describe mitigation measures that will be implemented to address any potential Project effects identified in a) and b). d) Revise the assessment of potential Project effects, residual effects, and cumulative effects for Indigenous peoples to include potential effects identified in a) and b) and any mitigation measures proposed to address those effects. For these assessments, refer to Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods* (2018)[12]. Health Canada is available to provide input to communications to Indigenous groups regarding potential health risks associated with the consumption of contaminated country foods.
Potential Project Benefits to Indigenous Peoples					
IR1-89	Indigenous Services Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 2.1	EIS Chapter 1, Section 1.2.3 EIS Chapter 2, Section 2.1.3	The EIS Guidelines require the proponent to describe the predicted economic and social benefits of the Project, including any potential benefits to Indigenous peoples. The EIS indicates that the anticipated benefits of the proposed Project to BCN, MSCN, and GLFN will include a reduction of transportation costs for goods and services and enhanced access to emergency, health, and social	a) Conduct two separate analyses of the potential benefits of the Project to Indigenous communities, with and without connection to the provincial road network. b) Describe the predicted economic and social benefits of the Project separately for each of the three Indigenous communities to be connected by the Project, as the

[12] Health Canada. 2018. *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods*. Accessed from www.publications.gc.ca/collections/collection_2018/sc-hc/H129-54-5-2018-eng.pdf.

	Manto Sipi Cree Nation – Project 6 Technical Review Comments Pimicikamak Okimawin – Project 6 Technical Review Comments God's Lake First Nation – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency		EIS Chapter 6, Section 6.6.3.1.1	services. These benefits will be enhanced once MI's long-term objective to complete the regional transportation network and provide communities with year-round vehicular access to Manitoba's provincial road network is achieved. However, the EIS also notes that the Government of Manitoba currently has no plans to proceed with Project 2 and Project 5, which comprise part of the proposed regional transportation network that would link the proposed Project to the provincial road network. Several Indigenous groups have expressed concerns that without connection of the Project to the provincial road network, certain economic and social benefits may not be realized or may not be as anticipated in the EIS. BCN also expressed concerns that construction and operation of the Project may not benefit their community as markedly as other local communities and may act to increase the costs of goods and services in their community. For instance, as the Project would facilitate easier access to the BCN reserve by individuals from MSCN, GLFN, and the surrounding area, the influx of people may result in an increased demand for fuel or food, causing prices to increase. Supplementary information is required to support the proponent's characterization of potential Project benefits to Indigenous peoples.	communities are unlikely to experience identical benefits. Include consideration for the Project to increase the cost of goods and services in certain communities. c) Revise the assessment of potential Project effects, residual effects, and cumulative effects to the health and socioeconomic conditions of Indigenous peoples to consider the potential for the cost of goods and services to increase in certain communities as a result of the Project.
Impacts to Aboriginal and Treaty Rights					
IR1-90	Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.0	EIS Chapter 5	The EIS Guidelines require the proponent to describe the following information for each Indigenous group identified in Part 2, Section 5.1 of that document: potential or established Aboriginal rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights); potential adverse impacts of each Project component and physical activity to section 35 rights; mitigation or accommodation measures to address potential impacts to section 35 rights; and any potential Project impacts to section 35 rights that have not been fully mitigated or accommodated. The EIS Guidelines also require the proponent to consider input provided by Indigenous groups regarding potential impacts to potential or established section 35 rights. The EIS does not describe each Indigenous group's views regarding their Aboriginal or Treaty rights and how each Indigenous group was engaged in	a) Describe each Indigenous group's views of their Aboriginal or Treaty rights as they relate to the Project or potential Project effects, including all groups listed in Part 2, Section 5.1 of the EIS Guidelines, and the conditions that support each community's exercise of their rights. This should include a description of how historic, existing, and approved activities have affected these conditions. i. If these views are not available to MI, describe efforts to engage each Indigenous group on this topic. b) Identify the pathways for potential impacts of the Project (positive and negative) on the exercise of Aboriginal or Treaty rights, accounting for the nature of rights,

	God's Lake First Nation – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency			developing or applying the methodology for the assessment of potential impacts to rights. Additionally, the conclusions presented in the EIS regarding potential impacts to rights do not consider each Indigenous group identified in Part 2, Section 5.1 of the EIS Guidelines. The EIS indicates that an assessment of potential Project effects to land and resource use upon which the exercise of Aboriginal or Treaty rights depends is an appropriate proxy for potential impacts to rights. Therefore, as effects of the Project on lands and resources used for traditional purposes are predicted to be not significant, impacts on potential or established Aboriginal or Treaty rights are not expected. Indigenous groups have indicated that they understand Aboriginal or Treaty rights to be more than the right to the use of lands and resources for traditional purposes and have expressed concerns regarding the conclusions presented in the EIS and the validity of this methodology for evaluating potential impacts to Aboriginal or Treaty rights. Indigenous groups are of the view that an assessment of impacts to Aboriginal or Treaty rights must include consideration of experience, culture, governance, knowledge, and other socio-cultural components. These factors are not considered in the EIS. Indigenous groups, including MSCN, have also requested that the proponent consider the development of a methodology for the assessment of potential impacts to Aboriginal or Treaty rights similar to that co-developed by the Government of Canada and Mikisew Cree First Nation and available on the Agency's website: https://ceaa-acee.gc.ca/050/documents/p65505/122764E.pdf. Other guidance includes the Agency's following document: *Interim Guidance: Assessment of Potential Impacts on the Rights of Indigenous Peoples*. Supplementary information is required to support the proponent's characterization of potential impacts of the Project to Aboriginal or Treaty rights.	regional/historic/cumulative impacts, community thresholds (if known), cultural landscape, preferred expression of rights, distribution of benefits/impact equity, and present and future generations. c) Define the criteria used for assessing the severity of impacts to rights. The criteria may be different from the criteria used to assess the significance of environmental effects and may vary between Indigenous groups. d) Considering each of the pathways identified and the criteria developed, provide analysis, discussion, and conclusions on whether the Project will have a low, medium, or high level of impact on the exercise of rights for each Indigenous group. e) Describe proposed mitigation measures that will be implemented that specifically address potential impacts to rights and accommodation measures that have been identified through engagement with Indigenous groups.

Annex I. Advice and Requests

The following table includes advice and requests that provide supporting information to IRs.

Advice and Requests					
Relevant IR	**Expert Dept. or Group**	**EIS Guidelines Reference**	**EIS Reference**	**Context and Rationale**	**Advice or Requests**
IR1-24 request	Manitoba Metis Federation – Project 6 Technical Review Comments			The MMF asserts that their members exercise their Aboriginal rights within the Project footprint, LAA, and RAA. As such, the MMF requests that MI provide the opportunity and necessary resources to carry out an independent and comprehensive Manitoba Métis Traditional Knowledge, Land Use, and Occupancy Study to identify and verify the rights, claims, and interests of the Manitoba Métis community that may be affected by the Project. The MMF also requests that the results of this study be used to inform the description of baseline information, the assessment of potential effects of the Project to the Manitoba Métis community, and the development of mitigation and accommodation measures to address potential effects, and that MI's use and understanding of this information be verified with the MMF prior to issuing information request responses.	a) The MMF requests that MI provide the opportunity and necessary resources to carry out an independent and comprehensive Manitoba Métis Traditional Knowledge, Land Use, and Occupancy Study for the Project footprint, LAA, and RAA. b) The MMF requests that the results of this study be used to inform the information and analysis contained within the EIS and that the use and understanding of this information be verified with the MMF.
IR1-37 advice	Health Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.2.1 and 6.4	EIS Chapter 6, Section 6.2.1.3	The EIS Guidelines require the proponent to describe potential changes in ambient daytime and night-time noise levels at key receptor points as a result of the Project during all Project phases and to describe measures to mitigate any potential adverse effects. The EIS indicates that blasting will be required for Project construction and maintenance at quarries, borrow areas, and other locations. Blasting may result in adverse effects to key human and wildlife receptors as a result of noise and vibrations.	a) Health Canada suggests following the recommendations in ISO 1996-1:2003 for blasting if the duration is anticipated to exceed one year. Alternately, the peak overpressure from blasting can be limited to an unweighted decibel value of 125-10 log N, as per Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise*. Consider incorporating this requirement into the Environmental Protection Procedures for noise control, as outlined in the EIS.
IR1-58 advice	Fisheries and Oceans Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 1.4	EIS Chapter 6, Section 6.3.1.6 and 6.5.6	The EIS Guidelines require the proponent to describe any federal power, duty, or function that may be exercised that would permit the carrying out in whole or in part of the Project or associated activities; and any legislation or other regulatory approvals that are applicable to the Project at the federal, provincial, regional, and municipal levels. The EIS indicates that an authorization from DFO under the *Fisheries Act* may be required for the Project and that, should a *Fisheries Act* authorization be required, MI will be required to develop offsetting plans for DFO review prior to commencement of watercourse crossing	a) In the event that a *Fisheries Act* authorization is required for the Project, DFO will work with the proponent through the detailed design and regulatory review phase to determine the amount of harm to fish and fish habitat and to negotiate the requirements of a fish habitat offsetting plan.

				construction. The EIS also describes potential adverse effects to fish and fish habitat that may result from the Project, but concludes that, following the implementation of mitigation measures, residual effects are not anticipated to be significant. DFO noted that the final decision regarding the determination of residual effects and harm to fish and fish habitat lies with DFO, once details regarding each watercourse crossing design and construction methodology are finalized.	
IR1-58 advice	Fisheries and Oceans Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 1.4, 8.1, and 8.2	EIS Chapter 9, Section 9.1	The EIS Guidelines require the proponent to present a preliminary follow-up program and preliminary environmental monitoring program for all phases of the Project and lists aspects of these programs that must be described in the EIS. The proponent is also required to describe any legislation or other regulatory approvals that are applicable to the Project at the federal, provincial, regional, and municipal levels. DFO acknowledges the proponent's intention to implement follow-up and monitoring programs to verify the accuracy of the environmental assessment and to determine the effectiveness of mitigation measures. While a framework for follow-up and monitoring programs are described in the EIS, the specific details of these programs have not been provided.	a) Additional requirements for follow-up and monitoring will be required by DFO as part of offsetting in the event that a *Fisheries Act* authorization is required. These measures will need to be developed and agreed to by DFO prior to the issuance of a *Fisheries Act* authorization.
IR1-74 advice	Transport Canada – Project 6 Technical Review Comments		EIS Chapter 8, Appendix 8-2, Environmental Protection Procedures 2 and 3	In the description of EP2 and EP3, the EIS indicates that tank vehicles used to deliver fuel to and around worksites will meet the requirements for the shipment of dangerous goods by road, as set out in "CSA Preliminary Standard B620-98, Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods". The reference to CSA Preliminary Standard B620-98 is no longer accurate and should be updated to "CSA B620-14: Highway tanks and TC portable tanks for the transportation of dangerous goods". Additionally, in the description of EP3, the EIS references Material Safety Data Sheets (MSDS). MSDS have been renamed to Safety Data Sheets (SDS).	a) Update the reference in EP2 and EP3 to CSA Preliminary Standard B620-98 to "CSA B620-14: Highway tanks and TC portable tanks for the transportation of dangerous goods". b) The reference in EP3 from MSDS to SDS should be updated.
IR1-75 advice	Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments			As noted by Pimicikamak Okimawin and MSCN, Indigenous communities whose TK was collected by MI understood that the data collected would be shared with the community for future use. To date, the results of the TK studies conducted by MI with these communities have not been shared with the respective communities to whom the TK applies.	a) Pimicikamak Okimawin and MSCN request that MI provide them with a copy of the results of the TK and land use studies conducted by MI with their communities. b) The Agency further recommends following-up with other Indigenous communities from whom TK information was collected to inquire whether they are interested in receiving a copy of the results of the TK studies conducted with their communities.

IR1-75 advice	Environment and Climate Change Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 8.1 and 8.2	EIS Chapter 9, Section 9.4	The EIS Guidelines require the proponent to present a preliminary follow-up program and preliminary environmental monitoring program for all phases of the Project and lists aspects of these programs that must be described in the EIS. The EIS indicates that decommissioning of the winter road will be monitored, but the duration of monitoring is not specified.	a) ECCC recommends that decommissioning of the winter road be monitored for at least five years to ensure that vegetation and habitat are regenerating as planned, and that measures to limit increased access facilitated by the Project are effective.
IR1-79 advice	Transport Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4 and 6.3.5	EIS Chapter 3, Section 3.3.2 EIS Chapter 5, Table 5.8	The EIS Guidelines require the proponent to describe any changes or alterations resulting from the Project to recreational navigation and access to areas used for traditional purposes by Indigenous peoples, including development of new roads, deactivation or reclamation of access roads, and changes to waterways that may affect navigation. The EIS indicates that while all watercourses to be crossed by the Project are identified as "non-scheduled" under the federal *Navigation Protection Act*, MI will meet Transport Canada navigation clearance requirements for all bridges. Transport Canada notes that the *Canadian Navigable Waters Act* (CNWA) came into force on August 28, 2019. Under the CNWA, an owner who proposes to construct, place, alter, rebuild, remove or decommission a major work that is on any navigable water that may interfere with navigation must submit an application for an approval to the Minister of Transport and deposit information about the work in locations specified by the Minister of Transport. In addition, the owner must publish a notice about the major work to advise interested parties that information has been posted for review. Any comments must be received within 30 days (or as specified) after the publication of the notice to the Navigation Protection Program. After the respective time period for the review, the Minister of Transport would make a decision for approval. The classes of works currently established in the Major Works Order that are likely to pose a substantial interference to navigation include: • aquaculture sites; • bridges; • causeways; • works – water control structures; and • ferry cables.	a) Transport Canada's Navigation Protection Program recommends the proponent re-assess all proposed water crossings using the Navigation Protection Program's External Submission Site Project Review Tool (http://wwwapps.tc.gc.ca/Prog/3/NWAR-RLEN-E/en/Account/Login) to determine requirements under the CNWA.

				An owner who proposes to construct, place, alter, rebuild, remove or decommission a work, other than a major work or a minor work, in any navigable water, may submit a voluntary application for an approval to the Minister of Transport or deposit information about the work in locations specified by the Minister of Transport and publish a notice to advise interested parties that information has been posted for review. Any comments must be received within 30 days after the publication of the notice to the owner. If there is any written comments, the owner and the commenter must attempt to resolve the concerns within 45 days of the end of the comment period. If the concerns are not resolved within the respective time period, the commenter may, within 15 days after that time period, request that the Minister of Transport make a decision whether the owner has to submit an application for an approval in relation to the work.	
IR1-80 request	God's Lake First Nation – June 5, 2019 Meeting with the Agency		Chapter 6, Section 6.4.9	The EIS indicates that important harvesting areas would be identified and mapped prior to clearing for the Project and that the ASR would be designed where possible to avoid loss of these areas. Should avoidance of these areas not be possible, GLFN has requested that their community have the opportunity to harvest any salvageable materials prior to Project construction to mitigate the waste of these resources. This includes important plant species, timber, peat moss, and top soil.	a) GLFN has requested the opportunity to salvage resources of value to their community prior to and during Project construction to limit the amount of waste of these resources. b) The Agency further recommends that MI engage with all Indigenous groups that may utilize the Project footprint to discuss their interest in salvaging resources.
IR1-81 request	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comments Manitoba Metis Federation – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 5.1 and 6.1.9	EIS Chapter 3, Section 3.3.5 EIS Chapter 5, Table 5.8 EIS Chapter 6, Section 6.1.9.4, 6.4.9.4, and 6.5.9.4	The EIS Guidelines require the proponent to provide baseline information for physical and cultural heritage, including any structure, site, or thing of archaeological, paleontological, historical, or architectural significance to Indigenous peoples. Indigenous groups, including MSCN, MMF, and GLFN, have requested that communities be notified should heritage resources of potential significance to their communities be discovered and that groups be given the option to keep historical resources of significance to their community on reserve.	a) MSCN, MMF, and GLFN, have requested that they be notified of any physical and cultural heritage resources or sites of importance to Indigenous peoples that are found and/or may be disturbed by the Project. b) MSCN, MMF, and GLFN, have requested that they be provided the option to retain resources of importance to their community on reserve, should they wish.

IR1-82 advice	Health Canada – Project 6 Technical Review Comments	EIS Guidelines Part 2, Section 6.3.4	EIS Chapter 6, Section 6.3.4 and 6.4.1.3	The EIS Guidelines require the proponent to describe how changes to the environment caused by the Project could affect Indigenous peoples, including the current use of lands and resources for traditional purposes and Indigenous health. The EIS indicates that information will be posted in local Indigenous communities to notify/update Indigenous peoples about the Project's construction schedule and that any risks associated with dust on country foods will be communicated to Indigenous communities through the Indigenous Participation and Engagement Program.	a) Frequent and timely communications with local Indigenous communities on planned and unforeseen Project activities will be important to reduce health risks from exposure to noise and contaminants in air, water, and country foods.
IR1-85 request	Manto Sipi Cree Nation – Project 6 Technical Review Comments		Chapter 8, Appendix 8-3	The EIS indicates that Indigenous groups will benefit economically from the Project as MI will require a percentage of construction tenders to be supplied from local content, including from Indigenous communities. To support employment of local Indigenous peoples and promotion of a culture of respect, MSCN has requested that all non-Indigenous staff and contractors employed to construct and maintain the Project be required to attend Indigenous Awareness Training.	a) MSCN requests that MI require all of its employees and contractors employed to construct and maintain the Project to attend Indigenous Awareness Training.
Advice related to federal regulatory requirements	Transport Canada – Project 6 Technical Review Comments			The EIS Guidelines require the proponent to outline applicable federal authorizations required for the Project to proceed and provide information relevant to the regulatory role of the federal government. Transport Canada notes that the Province of Manitoba has adopted the *Transportation of Dangerous Goods Regulations* as per the following: *The Dangerous Goods Handling and Transportation Act* (C.C.S.M. c. D12), Dangerous Goods Handling and Transportation Regulation, *Adoption of Transportation of Dangerous Goods Regulations*, SOR/2001-286 **1** Subject to the amendments set out in the Schedule, the following parts of the *Transportation of Dangerous Goods Regulations*, made under the *Transportation of Dangerous Goods Act, 1992* (Canada), are adopted as regulation under *The Dangerous Goods Handling and Transportation Act*: (a) Parts 1 to 10; and (b) the Schedules.	a) Part 8 of the *Transportation of Dangerous Goods Regulations* has new reporting requirements for dangerous goods that must be followed. The proponent is encouraged to contact Transport Canada and/or the Province of Manitoba for additional information on these reporting requirements.
Indigenous community request to consider application for	God's Lake First Nation – June 5, 2019 Meeting with the Agency, Project 6 Technical Review Comments		EIS Chapter 1, Section 1.1.2 EIS Chapter 5, Table 5.8	The EIS indicates that the Project will be funded by the Province of Manitoba; no federal funding is currently anticipated. The EIS also describes that construction of the Project is anticipated to begin in 2030, depending on the availability of government funding.	a) Indigenous groups have requested that MI consider seeking federal funding for the Project to potentially expedite the start of construction.

federal funding	Pimicikamak Okimawin – Project 6 Technical Review Comments Manto Sipi Cree Nation – Project 6 Technical Review Comments Bunibonibee Cree Nation – August 23, 2019 Meeting with the Agency			Several Indigenous groups have expressed interest in the Province of Manitoba seeking federal funding to support construction of the Project and to potentially facilitate an earlier construction start date.	