

## **Concordance Tables**



## CONCORDANCE TABLE TO IDENTIFY WHERE THE PROJECT-SPECIFIC CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY GUIDELINES ARE MET IN THE ENVIRONMENTAL IMPACT STATEMENT (EIS)



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Guidelines	Summary of EIS Guideline Requirements		Location in EIS	
Section (Part 2)		Chapter	Section	
1	INTRODUCTION AND OVERVIEW			
1.1	The Proponent Provide contact information (ex: name, address, phone, fax, email).	1	1.1.1	
	Identify itself and the name of the legal entity(ies) that would develop, manage and operate the project.	1	1.1.2	
	<ul> <li>Describe corporate and management structures.</li> </ul>	1 8	1.1.3; 8.6	
	<ul> <li>Specify the mechanism used to ensure that corporate policies will be implemented and respected for the project.</li> </ul>	1	1.1.4	
	<ul> <li>Identify key personnel, contractors, and/or sub-contractors responsible for preparing the EIS.</li> </ul>	1	1.1.5	
1.2	Project Overview  Describe the project, key project components and associated activities, scheduling details, the timing of each phase of the project and other key features. If the project is a part of a larger sequence of projects, the EIS will outline the larger context.  The overview is to identify the key components of the project, rather than providing a detailed description, which will follow in Part 2, Section 3 (Project Description) of this document.	1	1.2 (1.2.1 to 1.2.3)	
1.3	Project Location  Describe the geographical setting in which the project will take place focusing on those aspects of the project and its setting that are important in order to understand the potential environmental effects of the project and including the following information:	1	1.3	
	UTM coordinates of the main project site.	1	1.3.1	
	Current land use in the area.	1	1.3.2	
	<ul> <li>Distance of the project facilities and components to any federal lands.</li> </ul>	1	1.3.3	
	<ul> <li>The environmental significance and value of the geographical setting in which the project will take place and the surrounding area.</li> </ul>	1	1.3.4	
	<ul> <li>Environmentally sensitive areas, such as national, provincial and regional parks, ecological reserves, wetlands, estuaries, and habitats of federally or provincially listed species at risk and other sensitive areas.</li> </ul>	1	1.3.5	
	Description of local communities.	1 6	1.3.6; 6.1.9.1 and 6.1.9.2	
	<ul> <li>Traditional territories and/or consultation areas, treaty lands,</li> <li>Reserve lands and Métis harvesting regions and/or settlements.</li> </ul>	1	1.3.7	



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Section (Part 2)		Chapter	Section	
1.4	Regulatory Framework and the Role of Government Identify:	1	1.4	
	<ul> <li>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.</li> </ul>	1	1.4.1	
1.4	<ul> <li>Legislation and other regulatory approvals that are applicable to the project at the federal, provincial, regional and municipal levels.</li> </ul>	1	1.4.1 and 1.4.2	
	<ul> <li>Government policies, resource management, planning or study initiatives pertinent to the project and/or EA and their implications.</li> </ul>	1	1.4.1 and 1.4.2	
	Any treaty, self-government or other agreements between federal or provincial governments and Indigenous groups that are pertinent to the project and/or EA.	1	1.4.3	
	Any relevant land use plans, land zoning, or community plans.	1	1.4.4	
	<ul> <li>Regional, provincial and/or national objectives, standards or guidelines that have been used to assist in the evaluation of any predicted environmental effects.</li> </ul>	1 4	1.4.1.3, 1.5; 4.2, 4.5.1, 4.5.5, 4.5.6.3, and 4.5.7	
2	PROJECT JUSTIFICATION AND ALTERNATIVES CONSIDERED			
2.1	Purpose of the Project			
	Describe the purpose of the project by providing the rationale for the project, explaining the background, the problems or opportunities that the project is intended to satisfy and the stated objectives from the perspective of the proponent. If the objectives of the project are related to, to broader private or public sector policies, plans or programs, this information will also be included.	2	2.1.1 to 2.1.3	
	Describe the predicted environmental, economic and social benefits of the project. This information will be considered in assessing the justifiability of any significant adverse residual environmental effects, if such effects are identified.	1 2	1.2.3 2.1.3	
2.2	Alternatives Means of Carrying Out the Project			
	Identify and consider the effects of alternative means of carrying out the project that are technically and economically feasible. Address, at a minimum, the following project components:	2 6	2.2.1; Appendix 6-4	
	Highway route.	2	2.2.2	
	<ul><li>Location of access roads (permanent and temporary).</li></ul>	2	2.2.4;	
		8	8.2	
	Location of borrow areas, rock quarries and gravel pits.	2 8	2.2.5; 8.2	
	<ul> <li>Location and type of bridges and culverts (permanent and temporary).</li> </ul>	2	2.2.3	
3	PROJECT DESCRIPTION			
3.1	Project Components			



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
(1 0.10 2)	Describe the project by presenting the project components, associated and ancillary works, and other characteristics that will assist in understanding the environmental effects. Include:		
	Maps, at an appropriate scale, of the project location, the project components, boundaries of the proposed site with UTM coordinates, the major existing infrastructure, adjacent land uses and any important environmental features.	1	1.3; Figures 1-1 to 1-12; Figures 3-1 to 3-4 Appendix 3-7
	<ul> <li>Overburden, topsoil, gravel and rock storage, and stock piles (footprint, locations, volumes, development plans, and design criteria).</li> </ul>	3	3.3 and 3.4.1.8; Tables 3.5 and 3.6 Appendix 3-7
3.1	<ul> <li>Borrow areas, rock quarries and gravel pits (footprint, location, development plans including pit phases, geochemical characterization, distance from water bodies, and drainage pathways).</li> </ul>	3	3.3.5 and 3.4.1.8; Tables 3.5 and 3.6; Figure 3-4 Appendix 3-7
	Crusher facilities (footprint, technology, location).	3	3.3.5 Appendix 3-7
	Water management infrastructure proposed to control, collect and discharge surface drainage and groundwater seepage to the receiving environment from all key components of the project infrastructure (e.g. borrow areas, rock quarries and gravel pits).	3	3.3.6 Appendix 3-7
	<ul> <li>Permanent and temporary linear infrastructures (e.g. access roads), identifying the route of each of these linear infrastructures.</li> </ul>	3	3.3.3 Appendix 3-7
	The location and types of structure used for stream crossings.	3	3.3.2 Appendix 3-7
	Storage areas for fuels, explosives and hazardous wastes.	3	3.3.8 and 3.3.9
	<ul> <li>Drinking and industrial water requirements (source, quantity required, need for water treatment).</li> </ul>	3	3.3.2.1, 3.3.7, and 3.4.2.11
	Energy supply (source, quantity).	3	3.3.7
	Waste disposal (types of waste, methods of disposal, quantity).	3	3.3.8
3.2	Project Activities  Describe the construction and operation associated with the proposed project including descriptions of the activities to be carried out during each phase, the location of each activity, expected outputs and an indication of the activity's magnitude and scale. Provide emphasis on activities with the greatest potential to have environmental effects. Include sufficient information to predict environmental effects and address public concerns identified. Highlight activities that involve periods of increased environmental disturbance or the release of materials into the environment.	3	3.2 to 3.4
	Include a summary of the changes that have been made to the project since originally proposed, including the benefits of these changes to the environment, Indigenous groups, and the public.	2	2.2.2
	Include a schedule including time of year, frequency, and duration for all project activities.	3	3.5



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
3.2.1	Site Preparation and Construction		
	The information will include a description of:		
	Surveys for the clearance width.	3	3.4.1.1
	<ul><li>Vegetation and surface soil clearance.</li></ul>	3	3.4.1.2
	<ul><li>Construction of access roads (permanent and temporary).</li></ul>	3	3.4.1.6 and 3.4.1.15
	Alteration of linked roadways.	3	3.4.1.7
	<ul> <li>Borrow materials transportation and storage (source and</li> </ul>	3	3.4.1;
	quantity).	8	8.3.2
	Explosives storage (location and management).	3	3.4.1.16;
		8	8.3.2, and 8.4.2.3
	<ul><li>Blasting (frequency and methods).</li></ul>	3	3.4.1.3;
		8	8.3.2, and 8.4.2.3
	Bridge and culvert installation.	3	3.4.1.4 and 3.4.1.5
3.2.1	<ul><li>Construction of the roadbed.</li></ul>	3	3.4.1.6
	<ul> <li>Water management, including water diversions, dewatering or deposition activities required (location, methods and timing).</li> </ul>	3	3.3.2.1, 3.3.6, and 3.4.1.9
	Equipment requirements (type and quantity).	3	3.4.1.10
	<ul> <li>Contribution to atmospheric emissions, including emissions profile (type, rate and source).</li> </ul>	3	3.4.1.11
	<ul> <li>Use of administrative buildings, garages, other ancillary facilities.</li> </ul>	3	3.4.1.13
	<ul> <li>Use of construction camps (location, capacity, wastewater treatment).</li> </ul>	3	3.3.7, 3.3.8, and 3.4.1.13
	Number of employees and transportation of employees.	3	3.4.1.14
	<ul> <li>Closure of construction borrow pits, gravel pits, rock quarries, and laydown areas.</li> </ul>	3	3.4.1.15
3.2.2	Operation	l .	
	The information will include a description of:		
	Equipment requirements (type and quantity).	3	3.4.2.1
	<ul> <li>Contribution to atmospheric emissions, including emissions profile (type, rate and source).</li> </ul>	3	3.4.2.6
	<ul> <li>General road maintenance such as grader work, sign maintenance, weed mowing, dust controls, snow clearing and winter traction material application.</li> </ul>	3	3.4.2.3 and 3.4.2.4
	<ul> <li>Water management, including roadside drainage maintenance, water diversions, dewatering or deposition activities required in operations (location, methods and timing).</li> </ul>	3	3.4.2.2
	Bridge and culvert maintenance.	3	3.4.2.5
	Storage, handling and transport of materials.	3	3.4.2.8
	<ul> <li>Explosives storage and use (storage location and management).</li> </ul>	3	3.4.2.7
	<ul> <li>Drilling and blasting, aggregate crushing and sorting (frequency and methods).</li> </ul>	3	3.4.2.8



Guidelines	Summary of EIS Guideline Requirements		Location in EIS
Section (Part 2)		Chapter	Section
	<ul> <li>Characterization and management of overburden and (storage, handling and transport of the volumes generated, mineralogical characterization, potential for metal leaching and acid rock drainage).</li> </ul>	3	3.4.2.9
	<ul> <li>Storage and handling of reagents, petroleum products, chemical products, hazardous materials and residual materials.</li> </ul>	3	3.4.2.10
	<ul> <li>Use of administrative buildings, garages, other ancillary facilities (location, capacity, waste and wastewater treatment).</li> </ul>	3	3.4.2.11
	Number of employees and transportation of employees.	3	3.4.2.12
4	PUBLIC PARTICIPATION AND CONCERNS		
	Describe the on-going and proposed public participation activities that the proponent will undertake or that it has already conducted on the project. Provide a description of efforts made to distribute project information and provide a description of information and materials that were distributed during the consultation process. Indicate the methods used, where the consultation was held, the persons and organizations consulted, the concerns voiced and the extent to which this information was incorporated in the design of the project as well as in the EIS. Provide a summary of key issues raised related to the Project as well as describe any outstanding issues and ways to address them.	5 Annex	5.1 and 5.4 to 5.7; Appendix 5-6; Annex A
5	ENGAGEMENT WITH INDIGENOUS GROUPS AND CONCERNS RAISED		
	Engage with Indigenous groups that may be affected by the project for the purposes of developing the EIS and to obtain their views on:		
	Effects of changes to the environment on Indigenous peoples (health and socio-economic issues; physical and cultural heritage, including any structure, site or thing that is of historical, archaeological, paleontological or architectural significance; and current use of lands and resources for traditional purposes).	5	5.1 to 5.3 and 5.5
	<ul> <li>Potential adverse impacts of the project on potential or established Section 35 rights, including title and related interests, in respect of the Crown's duty to consult, and where appropriate, accommodate Aboriginal peoples.</li> </ul>	5 Annex	5.1 to 5.3; Appendices 5-1 to 5-3; Annex A
	With respect to potential adverse impacts of the project on potential or established Section 35 rights, for each group identified in Part 2, Section 5.1 of these guidelines the EIS will document:		_
	<ul> <li>Potential or established rights (including geographical extent, nature, frequency and timing of the practice or exercise of the right), including maps and data sets (e.g., fish catch numbers) when this information is provided by a group to the proponent, provided by the Agency or available through public records.</li> </ul>	5 6 Annex	5.1 to 5.3 and 5.5; Appendices 5-1 to 5-3; 6.19 and 6.3.4.1; Annex A



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	The potential adverse impacts of each of the project components and physical activities, in all phases, on potential or established section 35 rights, including title and related interests. This assessment is to be based on a comparison of the exercise of the identified rights, title and related interests between the predicted future conditions with the project and the predicted future conditions without the project. Include the perspectives of potentially impacted groups where these were provided to the proponent by the groups.	5 6	5.5 and 5.6; Appendix 5-1 to 5-3; 6.3.4 (6.3.4.1.1 to 6.3.4.1.4)
	The measures identified to accommodate potential adverse impacts of the project on the potential or established section 35 rights, including title and related interests. These measures will be written as specific commitments that clearly describe how the proponent intends to implement them, and may go beyond mitigation measures that are developed to address potential adverse environmental effects.	5 6	5.3 and 5.6; Appendices 5-2 to 5-3; 6.4.9; Appendices 6.4 and 6.5
5	The potential adverse impacts on potential or established section 35 rights, including title and related interests that have not been fully mitigated or accommodated as part of the EA and associated engagement with Indigenous groups. The proponent will also take into account the potential adverse impacts that may result from the residual and cumulative environmental effects. Include the perspectives of potentially affected groups where these were provided to the proponent by the groups.	5	5.3 and 5.6; Appendices 5.1 to 5.3; 6.3.4, 6.5.9, 6.6.3.2.4, 6.6.3.2.5 and 6.6.3.4
	The information sources, methodology and findings of the assessment of paragraph 5(1)(c) effects under CEAA 2012 may be used to inform the assessment of potential adverse impacts of the project on potential or established section 35 rights. However, there may be distinctions between these two aspects. Carefully consider the potential distinction between these two aspects and, where there are differences, include the relevant information in its assessment.	N/A	N/A
	In terms of gathering views from potentially affected groups with respect to both environmental effects of the project and the potential adverse impacts of the project on potential or established section 35 rights, including title and related interests, the EIS will document:		
	VCs suggested by groups for inclusion in the EIS, whether they were included, and the rationale for any exclusions (e.g., individual species of small mammals that are hunted or trapped; Caribou, Moose, Wolf and other larger game/fur-bearing animals that are hunted; species of birds that use God's Lake; lands within traditional territories and Treaty 5; communities themselves; archaeological and cultural sites on and around Oxford Lake and its tributaries; the Hayes River watershed; Molson Lake Access Road and Oxford House Winter Road; wetlands and traditional medicines; ecotourism, including lodge and outpost operations).	5	5.3.2 and 5.6; Appendices 5-1 and 5-2; Annex A



Guidelines	Summary of EIS Guideline Requirements		Location in EIS
Section (Part 2)		Chapter	Section
	<ul> <li>Specific suggestions raised by each group for mitigating the effects of changes to the environment on aboriginal peoples or accommodating potential adverse impacts of the project on potential or established Section 35 rights, including title and related interests.</li> </ul>	5	5.3.3 and 5.6; Appendices 5-2 and 5-3; Annex A
	<ul> <li>Views expressed by each group on the effectiveness of the mitigation or accommodation measures.</li> </ul>	5	5.3.2, 5.3.3 and 5.6; Appendices 5-2 and 5-3; Annex A
	<ul> <li>Any potential cultural, social and/or economic impacts or benefits to each group that may arise as a result of the project. Include the perspectives of potentially affected groups where these were provided to the proponent by the groups (from the proponent's</li> </ul>	5 6	5.3, 5.4.2.1 and 5.6; Appendix 5-3; 6.3.4.1 (6.3.4.1.1 to
	perspective).		6.3.4.1.4)
	<ul> <li>Comments, specific issues and concerns raised by potentially affected groups and how the key concerns were responded to or addressed.</li> </ul>	5	5.6; Appendices 5-1 to 5-3
	<ul> <li>Changes made to the project design and implementation directly as a result of discussions with potentially affected groups.</li> </ul>	2 5	2.2.2 5.2.3, 5.3.4.3 and 5.6
5	Where and how Indigenous traditional knowledge was incorporated into the environmental effects assessment (including methodology, baseline conditions and effects analysis for all VCs) and the consideration of potential adverse impacts on potential or established Section 35 rights and related mitigation measures.	2 4 5 6	2.2.2; 4.3.3 and 4.3.4; 5.1 to 5.3; 6.1.9.1.1.6, 6.1.9.1.2.6, 6.1.9.1.3.6, and 6.1.9.1.4.5
	<ul> <li>Any additional issues and concerns raised by potentially affected groups in relation to the environmental effects assessment and the potential adverse impacts of the project on potential or established Aboriginal and Treaty rights.</li> </ul>	5 Annex	5.6; Table 5.8; Appendices 5.1 to 5-3; Annex A
	Create a tracking table of key issues raised by each group, including the concerns raised related to the project, proposed mitigation measures, and where appropriate, a reference to the proponent's analysis in the EIS.	5	5.6; Table 5.8
5.1	Indigenous Groups and Engagement Activities		
	With respect to engagement activities, document:  the engagement activities undertaken with each group prior to the submission of the EIS, including the date and means of engagement (e.g. meeting, mail, telephone).	5 Annex	5.1 to 5.5; Appendices 5-1 to 5-3; Annex A
	<ul> <li>Any future planned engagement activities.</li> </ul>	5	5.7
	<ul> <li>How engagement activities allowed groups to understand the project and evaluate its effects on their communities, activities, potential or established Section 35 rights, including title and related interests.</li> </ul>	5	5.3 and 5.5



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	Ensure that groups have access to timely and relevant information on the project and how the project may adversely impact them. Structure engagement activities to provide adequate time for groups to review and comment on the relevant information. Engagement activities are to be appropriate to the groups' needs, arranged through discussions with the groups and in keeping with established consultation protocols, where available. Describe all efforts, successful or not, taken to solicit the information required from groups to support the preparation of the EIS.	5 Annex	5.2 to 5.6; Appendices 5-1 to 5-4; Appendices 5-12 and 5- 13;
	Ensure that views of groups are recorded and that groups are provided with opportunities to validate the interpretation of their views. Keep detailed tracking records of its engagement activities, recording all interactions with groups, the issues raised by each group and how the concerns were addressed. These records will be shared with the Agency.		Annex A
5.1	For the groups expected to be most affected by the project, strive toward developing a productive and constructive relationship based on ongoing dialogue with the groups in order to support information gathering and the effects assessment. These groups include:  Bunibonibee Cree Nation  Manto Sipi Cree Nation  Manitoba Metis Federation  Norway House Cree Nation  Cross Lake Band of Indians / Pimicikamak Okimawin  Garden Hill First Nation  Red Sucker Lake First Nation  St. Theresa Point First Nation  Theresa Point First Nation  wasagamack First Nation  For the above groups, strive to use primary data sources and hold face-to-face meetings to discuss concerns. Facilitate these meetings by making key EA summary documents (baseline studies, EIS, key findings, plain language summaries) accessible in advance. Ensure there are sufficient opportunities for individuals and groups to provide oral input in the language of their choice. If possible, consider translating information for these groups into the appropriate Indigenous languages(s) in order to facilitate engagement activities during the EA.	5 Annex	5.2, 5.3, 5.4.1 and 5.5; Appendix 5-1 to 5-4; Annex A
	For groups that may also be affected by the project, but to a lesser degree, ensure these groups are notified about key steps in the EIS development process and of opportunities to provide comments on key EA documents and/or information to be provided regarding their community. Ensure these groups are reflected in the baseline information and assessment of potential effects or impacts in the EIS.	5 6	5.4.1 6.1.9.2



Guidelines	Summary of EIS Guideline Requirements	Location in EIS	
Section (Part 2)		Chapter	Section
6	EFFECTS ASSESSMENT		
6.1	Project Setting and Baseline Conditions  Based on the scope of the project described in Section 3 (Part 1), the EIS will present baseline information in sufficient detail to enable the identification of how the project could affect the VCs and an analysis of those effects. Should other VCs be identified during the conduct of the EA, the baseline condition for these components will also be described in the EIS. As a minimum, include a description of:	6	6.1
6.1.1	Atmospheric Environment		
	Ambient air quality in the project areas and in the airshed likely to be affected by the project by identifying and quantifying emission sources for, but not limited to, the following contaminants in concentration units comparable to guidelines (ex: μg/m³): total suspended particulates, fine particulates smaller than 2.5 microns (PM <sub>2.5</sub> ), respirable particulates of less than 10 microns (PM <sub>10</sub> ), diesel particulate matter, carbon monoxide (CO), sulphur oxides (SO <sub>x</sub> ), nitrogen oxides (NO <sub>x</sub> ), and volatile organic compounds (VOCs).	6	6.1.1.2
6.1.1	<ul> <li>Identify and quantify existing greenhouse gas emissions by individual pollutant measured as kilotonnes of CO<sup>2</sup> equivalent per year in the project study areas.</li> </ul>	6	6.1.1.3
	Direct and indirect sources of air emissions.	6	6.1.1.2 and 6.1.1.3
	<ul> <li>Current provincial/territorial/federal limits for greenhouse gas emission targets.</li> </ul>	6	6.1.1.3
	<ul> <li>Current ambient daytime and night time noise levels at key receptor points (e.g. Indigenous groups or communities), including the results of a baseline ambient noise survey. Information on typical sound sources, geographic extent and temporal variations will be included.</li> </ul>	6	6.1.1.4
	<ul> <li>Existing ambient night-time light levels at the project site and at any other areas where project activities could have an effect on light levels. Description of night-time illumination levels during different weather conditions and seasons.</li> </ul>	6	6.1.1.5
	<ul> <li>Historical records of relevant meteorological information (e.g. total precipitation (rain and snow); mean, maximum and minimum temperatures; and typical wind speed and direction).</li> </ul>	6	6.1.1.1
6.1.2	Geology and Geochemistry		
	<ul> <li>The bedrock and host rock geology of the project area, including a table of geologic descriptions, geological maps and cross-sections of appropriate scale.</li> </ul>	6	6.1.2.1
	<ul> <li>The geomorphology, topography and geotechnical characteristics of areas proposed for construction of major project components.</li> </ul>	6	6.1.2.1 Appendix 3-7



Guidelines		Location in EIS		
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section	
	<ul> <li>The geochemical characterization of expected material such as overburden and potential construction material in order to predict metal leaching and acid rock drainage including oxidation of primary sulphides and secondary soluble sulphate minerals.</li> </ul>	6	6.1.2.1	
	<ul> <li>Geological hazards that exist in the areas planned for the project facilities and infrastructure, including:         <ul> <li>History of seismic activity in the area;</li> <li>Isostatic rise or subsidence; and</li> <li>Landslides, slope erosion and the potential for ground and rock instability, and subsidence following project activities.</li> </ul> </li> </ul>	6	6.1.2.3 and 6.6.2.5	
	<ul> <li>Baseline concentrations of contaminants of concern within the local, regional and downstream receiving environments.</li> </ul>	6	6.1.2.1	
	<ul> <li>Geochemical characterization of leaching potential, including, but not limited to, contaminants of concern from overburden and potential construction material.</li> </ul>	6	6.1.2.1	
6.1.3	<ul> <li>Topography and Soil</li> <li>Baseline mapping and description of landforms and soils within the local and regional project area.</li> </ul>	6	6.1.3.1 and 6.1.3.2; Figure 6-8 Appendix 3-7	
	<ul> <li>Maps depicting soil depth by horizon and soil order within the project area to support soil salvage and reclamation efforts, and to outline potential for soil erosion.</li> </ul>	6	6.1.3.2	
6.1.3	<ul> <li>Suitability of topsoil and overburden for use in the rehabilitation of disturbed areas.</li> </ul>	6	6.1.3.2	
	<ul> <li>Permafrost conditions including distribution of frozen and unfrozen ground, thermal conditions (ground temperatures), ground ice, thaw sensitivity and active layer thickness.</li> </ul>	6	6.1.3.3 and 6.6.2.6	
	<ul> <li>The potential for thaw settlement and terrain instability associated with ground thawing.</li> </ul>	6	6.6.2.6	
6.1.4	<ul> <li>Riparian, Wetland and Terrestrial Environments</li> <li>Characterization of soils in the excavation area, in terrestrial and riparian environments, with a description of their past use.</li> </ul>	6	6.1.3.2	
	<ul> <li>Topography, drainage, geology and hydrogeology, and the physicochemical characteristics of potential on-land sediment or soil disposal sites.</li> </ul>	6	6.1.4.2 Appendix 3-7	
	Characterization of the shoreline, banks, current and future flood risk areas, and wetlands (fens, marshes, peatlands, mudflats etc.), including the location and extent of wetlands likely to be affected by project activities according to their size, type (class and form), the description of their ecological function (ecological, hydrological, wildlife, socioeconomic, etc.) and species composition.	6	6.1.4.3 and 6.1.4.4	
	<ul> <li>Plant and animal species (abundance, distribution and diversity) and their habitats, with a focus on species at risk or with special status that are of social, economic, cultural or scientific significance, as well as invasive alien species.</li> </ul>	6	6.1.4.1.3 to 6.1.4.1.6 and 6.1.4.5 (6.1.4.5.1 to 6.1.4.5.4)	



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
6.1.5	Groundwater and Surface Water		
	The hydrogeology, including:		
	<ul> <li>The groundwater flow patterns and rates.</li> </ul>	6	6.1.5.2
	<ul> <li>A discussion of the hydrogeologic, hydrologic, geomorphic, climatic and anthropogenic controls on groundwater flow.</li> </ul>	6	6.1.5.2
	<ul> <li>Temporal changes in groundwater flow (e.g., seasonal and long term changes in water levels).</li> </ul>	6	6.1.5.2
	<ul> <li>A delineation and characterization of groundwater surface water interactions including the locations of groundwater discharge to surface water and surface water recharge to groundwater.</li> </ul>	6	6.1.5.1.3 and 6.1.5.2
	<ul> <li>Temperature changes in surface water as a result of groundwater-surface water interactions.</li> </ul>	6	6.1.5.2
	<ul> <li>Changes to surface water quality, including seasonal changes in runoff entering watercourses.</li> </ul>	6	6.1.5.1.4
	<ul> <li>In permafrost regions, describe configuration of frozen ground and taliks and the influence on groundwater flow.</li> </ul>	6	6.1.5.2
6.1.5	Hydrogeological maps and cross-sections for the project area to outline the extent of aquifers and aquitards, including bedrock fracture and fault zones, locations and depths of wells and strainers, groundwater types springs, surface waters, and project facilities. Groundwater levels, potentiometric contours, flow directions, groundwater divides and areas of recharge and discharge should be included.	6	6.1.5.2
	<ul> <li>Graphs or tables indicating the seasonal variations in groundwater levels, flow regime, and quality.</li> </ul>	6	6.1.5.2
	<ul> <li>Local and regional potable groundwater supplies, including their current use and potential for future use.</li> </ul>	6	6.1.5.2
	<ul> <li>Bedrock fracture sizes and orientations in relation to groundwater flow.</li> </ul>	6	6.1.5.2
	<ul> <li>The delineation of drainage basins, at appropriate scales (water bodies and watercourses), including intermittent streams, flood risk areas and wetlands, boundaries of the watershed and sub watersheds, overlaid by key project components.</li> </ul>	6	6.1.5.1.1
	<ul> <li>Hydrological regimes, including monthly, seasonal and annual water flow (discharge) data.</li> </ul>	6	6.1.5.1.3
	<ul> <li>For each affected water body, the total surface area, bathymetry, maximum and mean depths, water level fluctuations, type of substrate (sediments).</li> </ul>	6	6.1.5.1.2
	<ul> <li>Seasonal surface water quality, including analytical results (e.g. water temperature, turbidity, pH, dissolved oxygen profiles) and interpretation for representative tributaries and water bodies including all sites to receive project runoff.</li> </ul>	6	6.1.5.1.4
	Any local and regional potable surface water resource.	6	6.1.5.1.5



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	<ul> <li>Sediment quality analysis for key sites likely to receive project effluents.</li> </ul>	6	6.1.5.1.6
6.1.6	Fish and Fish Habitat		
	For potentially affected surface waters:  A characterization of fish populations (e.g. abundance, distribution, and movements) on the basis of species and life stage including information on the surveys carried out and the source of data available (e.g. location of sampling stations, catch methods, date of catches, species, catch-per-unit effort).	6	6.1.6.1
	<ul> <li>A description of primary and secondary productivity of aquatic resources (e.g. benthic communities, feeder species, aquatic plants) in terms of abundance and distribution in affected water bodies with a characterisation of seasonal variability.</li> </ul>	6	6.1.6.1.1
	<ul> <li>A list of any fish or invertebrate species at risk that are known to be present.</li> </ul>	6	6.1.6.2 and 6.1.8
6.1.6	<ul> <li>A description of the habitat by homogeneous section, including the length of the section, width of the channel from the high water mark (bankful width), water depths, type of substrate (sediments), aquatic and riparian vegetation, cover components, and photos.</li> </ul>	6	6.1.6.1. 2 and 6.1.6.1.3
	<ul> <li>A description of natural obstacles (e.g. falls, beaver dams) or existing structures (e.g. water crossings) that hinder the free passage of fish.</li> </ul>	6	6.1.6
	• Maps, at a suitable scale, indicating the surface area of potential or confirmed fish habitat for spawning, rearing, nursery, feeding, overwintering, migration routes, etc. Where appropriate, this information should be linked to water depths (bathymetry) to identify the extent of a water body's littoral zone.	6	6.1.6.1.3
	The description and location of suitable habitats for fish species at risk that appear on federal and provincial lists and that are found or are likely to be found in the study area.	6	6.1.6.2
6.1.7	Migratory Birds and Their Habitat		
	Birds and their habitats that are found or are likely to be found in the study area. This description may be based on existing sources, but supporting evidence is required to demonstrate that the data used are representative of the avifauna and habitats found in the study area. The existing data must be supplemented by surveys, as appropriate, to provide current field data.	6	6.1.7
	<ul> <li>Abundance, distribution, and life stages of migratory and non-migratory birds (including waterfowl, raptors, shorebirds, marsh birds and other land birds) likely to be affected in the project area based on existing information, or surveys, as appropriate, to provide current field data.</li> </ul>	6	6.1.7
	<ul> <li>Characterization of various ecosystems found in the project area, likely to be affected, based on existing information (land cover types, vegetation).</li> </ul>	6	6.1.7



Guidelines	Summary of EIS Guideline Requirements	Location in EIS		
Section (Part 2)		Chapter	Section	
	<ul> <li>year-round migratory bird use of the area (e.g. winter, spring migration, breeding season, fall migration), based on preliminary data from existing sources and surveys, as appropriate, to provide current field data.</li> </ul>	6	6.1.7	
6.1.8	Species at Risk			
	<ul> <li>A list of all potential or known Species at Risk Act listed species at risk (fauna and flora) that may be affected by the project, using existing data and literature as well as surveys to provide current field data.</li> </ul>	6	6.1.8	
	<ul> <li>a list of all species designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as extirpated, endangered, threatened, or of special concern, using existing data and literature as well as surveys to provide current field data.</li> </ul>	6	6.1.8	
	<ul> <li>Any published studies that describe the regional importance, abundance, and distribution of species at risk including recovery strategies or plans. The existing data must be supplemented by surveys, as appropriate, to provide current field data.</li> </ul>	6	6.1.8; Appendix 6-2	
6.1.8	• Information on residences, seasonal movements, movement corridors, habitat requirements, key habitat areas, identified critical habitat and/or recovery habitat (where applicable) and general life history of species at risk that may occur in the project area, or be affected by the project.	6	6.1.8.1.3	
6.1.9	Indigenous Peoples			
	With respect to potential effects of changes to the environment caused by the project on Indigenous peoples and the related VCs, provide baseline information for each group identified in section 5, and any groups identified after these guidelines are finalized. Baseline information will describe and characterize the following, based on the spatial and temporal scope selected for the assessment, and from a regional context to support assessment of project related and cumulative effects:	6	6.1.9	
	<ul> <li>Location of traditional territory (including maps where available).</li> </ul>	6	6.1.9.1.1.1, 6.1.9.1.2.1, 6.1.9.1.3.1, and 6.1.9.1.4.1; Figure 6-16	
	<ul> <li>Location of reserves and communities.</li> </ul>	6	Figure 6-17	



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	<ul> <li>Traditional uses currently practiced or practiced in recent history.</li> <li>Location of hunting camps, cabins and traditional gathering or teaching grounds.</li> <li>Fish, wildlife, birds, plants or other natural resources of importance for traditional use.</li> <li>Areas of concentration of migratory animals, such as breeding,</li> </ul>		6.1.9.1.1.6,
	<ul> <li>denning and/or wintering areas.</li> <li>Places where fish, wildlife, birds, plants or other natural resources are harvested, including places that are preferred.</li> <li>Access and travel routes for conducting traditional practices.</li> <li>Frequency, duration or timing of traditional practices.</li> <li>Cultural values associated with the area affected by the project and the traditional uses identified.</li> </ul>	6	6.1.9.1.2.6, 6.1.9.1.3.6, and 6.1.9.1.4.5
	Baseline information for health and socio-economic conditions will include the functioning and health of the socio-economic environment, encompassing a broad range of matters that affect communities in the study area in a way that recognizes interrelationships, system functions and vulnerabilities. Specific aspects that will be considered include:	6	6.1.9 and 6.1.11
	<ul> <li>Sites or areas that are used by Indigenous people either for permanent residences or on a seasonal/temporary basis and the number of people that use each site or area identified.</li> </ul>	6	6.1.9.3, 6.1.11.3.6 and 6.1.11.5
	<ul> <li>Drinking and recreational use water sources (permanent, seasonal, periodic, or temporary).</li> </ul>	6	6.1.9.3
6.1.9	<ul> <li>Consumption of country foods (also known as traditional foods) including food that is trapped, fished, hunted, harvested or grown for subsistence or medicinal purposes, outside of the commercial food chain.</li> <li>Which country foods are consumed by which groups, how frequently, and where these country foods are harvested.</li> </ul>	6	6.1.9.1.1.6, 6.1.9.1.2.6, 6.1.9.1.3.6 and 6.1.9.1.4.5
	<ul> <li>Commercial activities (e.g. fishing, trapping, hunting, forestry, outfitting).</li> </ul>	6	6.1.11.3.1 to 6.1.11.3.3 and 6.1.11.3.7 to 6.1.11.3.9
	<ul><li>Recreational uses.</li></ul>	6	6.1.11.3.5
	Baseline information for physical and cultural heritage (including any site, structure or thing of archaeological, paleontological, historical or architectural significance) will consider all elements of cultural and historical importance to groups in the area and is not restricted to artefacts considered under provincial heritage legislative requirements. Specific aspects that will be considered include:  Burial sites.  Cultural landscapes.  Sacred, ceremonial or culturally important places, objects or things.	6	6.1.9.4
	<ul> <li>Archaeological potential and/or artefact places.</li> </ul>		



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	Any other baseline information that supports the analysis of predicted effects of project-related changes to the environment on Indigenous peoples will be included as necessary. The EIS will also indicate how input from Indigenous groups, including Aboriginal traditional knowledge, was used in establishing the baseline conditions related to health and socio-economics, physical and cultural heritage and current use of lands and resources for traditional purposes.	5	5.1 to 5.3; Appendices 5-1 to 5-3; 6.1.9
6.1.10	<ul> <li>Other Changes to the Environment Arising as a Result of a Federal Decision or due to Changes on Federal Lands, in Another Province or Outside Canada</li> <li>Should there be the potential for a change to the environment arising as a result of a federal decision(s), or on federal lands, lands in another province or lands outside Canada, the EIS will include baseline information on the environmental component likely to be affected (if this information is not already covered in other subsections of these guidelines). For example, if an authorization provided under the Fisheries Act was to result in the flooding of key wildlife habitat, baseline information should be provided on the wildlife species likely to be affected.</li> </ul>	6	6.1.10
6.1.11	Human Environment		5.4.4.4
	<ul> <li>The rural and urban settings likely to be affected by the project.</li> <li>Any federal lands, lands located outside the province or Canada that may be affected by the project.</li> </ul>	6	6.1.11.1 6.1.10
6.1.11	<ul> <li>The current use of land in the study area, including a description of hunting, recreational and commercial fishing, trapping, gathering, outdoor recreation, use of seasonal cabins, outfitters.</li> </ul>	6	6.1.11.3
	Current use of all waterways and water bodies that will be directly affected by the project, including recreational uses, where available.	6	6.1.11.4
	<ul> <li>Location of and proximity of any permanent, seasonal or temporary residences or camps.</li> </ul>	6	6.1.11.5
	Health and socio-economic conditions, including the functioning and health of the socio-economic environment, encompassing a broad range of matters that affect communities in the study area in a way that recognizes interrelationships, system functions and vulnerabilities.	6	6.1.9.3 and 6.1.11.6
	<ul> <li>Physical and cultural heritage, including structures, sites or things of historical, archaeological, paleontological or architectural significance.</li> </ul>	6	6.1.9.4



Guidelines			Location in EIS		
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section		
	Predicted Changes to the Physical Environment (Prior to Mitigation) Include a consideration of the predicted changes to the environment as a result of the project being carried out or as a result of any powers, duties or functions that are to be exercised by the federal government in relation to the project. These predicted changes to the environment are to be considered in relation to each phase of the project (construction, operation, decommissioning, and abandonment) and are to be described in terms of the magnitude, geographic extent, duration and frequency, and whether the environmental changes are reversible or irreversible. Include the following changes to the physical environment and explain and describe the connections between the changes (refer to Sections 6.2.1 to 6.2.3 below):	6	6.2		
6.2.1	<ul> <li>Changes to the Atmospheric Environment (Prior to Mitigation)</li> <li>Changes in air quality (including sulfur oxides (SO<sub>x</sub>), nitrous oxides (NO<sub>x</sub>), total suspended particulates, fine particulates smaller than 2.5 microns (PM<sub>2.5</sub>), respirable particulates of less than 10 microns (PM<sub>10</sub>) and diesel particulates presented in concentration values comparable to guidelines (i.e. μg/m³)).</li> </ul>	6	6.2.1.1		
	<ul> <li>An estimate of the direct greenhouse gas emissions associated with all phases of the project as well as any mitigation measures proposed to minimize greenhouse gas emissions. This information is to be presented by individual pollutant and should also be summarized in CO2 equivalent per year.</li> <li>Justify all estimates and emission factors used in the analysis.</li> <li>Provide the methods and calculations used for the analysis.</li> <li>Compare and assess the level of estimated emissions of greenhouse gases to the regional, provincial and federal emission targets.</li> </ul>	6	6.2.1.2		
	<ul> <li>Changes in ambient daytime and night-time noise levels at key receptor points.</li> </ul>	6	6.2.1.3		
	<ul><li>Changes in night-time light levels.</li></ul>	6	6.2.1.4		
6.2.2	<ul> <li>Changes to Groundwater and Surface Water (Prior to Mitigation)</li> <li>Changes to groundwater flow patterns, fluxes, and divides based on the results of groundwater flow modelling.</li> </ul>	6	6.2.4.2		
	<ul> <li>Changes to turbidity, oxygen level, water temperature, ice regime, and water quality including predictions regarding salinity or concentrations of other substances used for maintenance of the highway.</li> </ul>	6	6.2.4.1		
	<ul> <li>Changes in surface water quality associated with any road effluent releases or surface runoff.</li> </ul>	6	6.2.4.1.2 and 6.2.4.1.3		
	Changes to the hydrological and hydrometric conditions.	6	6.2.4.1.1		
	<ul> <li>Changes to groundwater recharge/discharge areas and any changes to groundwater infiltration areas.</li> </ul>	6	6.2.4.2		



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	<ul> <li>Changes to groundwater quality associated with storage or release of any road effluents or drainage including surface runoff.</li> </ul>	6	6.2.4.2.2
	<ul> <li>Changes to water quality attributed to acid rock drainage and metal leaching associated with the storage of overburden and potential construction material, including:</li> </ul>	6	6.2.4.1.4
	<ul> <li>Short term metal leaching properties.</li> </ul>	6	6.2.4.1.4
	<ul> <li>Longer term rates of acid generation (if any) and metal leaching.</li> </ul>	6	N/A
	<ul> <li>Estimates of the potential for excavated materials (including overburden and potential construction material) to be sources of acid rock drainage or metal leaching.</li> </ul>	6	6.2.4.1.4
	<ul> <li>Estimates of potential time to the onset of acid rock drainage or metal leaching.</li> </ul>	6	6.2.4.1.4
	<ul> <li>Quantity and quality of leachate from samples of overburden and potential construction material.</li> </ul>	6	6.2.4.1.4
	<ul> <li>Quantity and quality of effluent to be released from the site into the receiving waters.</li> </ul>	6	6.2.4.1.2 and 6.2.4.1.3
	<ul> <li>Quality of humidity cell or column test liquid from acid rock testing.</li> </ul>	6	6.2.4.1.4
	<ul> <li>Surface and seepage water quality from the overburden and construction material stockpiles and other infrastructure during construction and operation and post-closure.</li> </ul>	6	6.2.4.1.2 and 6.2.4.1.3
6.2.3	Changes to Riparian, Wetland and Terrestrial Environments (Prior to Mitigation)  Overall description of changes related to landscape disturbance.	6	6.2.5
	Changes to the habitat of migratory and non-migratory birds, with a distinction made between the two bird categories, including losses, structural changes and fragmentation of riparian habitat of terrestrial environments and wetlands frequented by birds (types of cover, ecological unit of the area in terms of quality, quantity, diversity, distribution and functions).	6	6.3.2.1
	<ul> <li>Changes to critical habitat for federally listed species at risk (and/or important habitat for species at risk.</li> </ul>	6	6.3.3
6.2.3	<ul> <li>Changes to key habitat for species important to current use of lands and resources for traditional purposes.</li> </ul>	6	6.2.5 (6.2.5.1.1, 6.2.5.5.1.1, 6.2.5.5.2.1 and 6.2.5.6.1)
6.3	Predicted Effects on Valued Components (Prior to Mitigation) Based on the predicted changes to the environment identified in section 6.2, assess the environmental effects of the project on the following VCs and describe the interconnections between and changes to VCs (refer to Sections 6.3.1 to 6.3.6 below):	6	6.3



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
6.3.1	<ul> <li>Fish and Fish Habitat (Prior to Mitigation)</li> <li>The identification of any potential adverse effects to fish and fish habitat as defined in subsection 2(1) of the Fisheries Act, including the calculations of any potential habitat loss (temporary or permanent) in terms of surface areas (e.g. spawning grounds, juvenile-rearing areas, feeding), and in relation to watershed availability and significance. The assessment will include a consideration of:         <ul> <li>The geomorphological changes and their effects on hydrodynamic conditions and fish habitats (e.g. modification of substrates, dynamic imbalance, silting of spawning beds).</li> <li>The modifications of hydrological and hydrometric conditions on fish habitat and on the fish species' life cycle activities (e.g. reproduction, juvenile-rearing, movements).</li> <li>Potential effects on riparian areas that could affect aquatic biological resources and productivity taking into account any anticipated modifications to fish habitat.</li> <li>Potential effects on fish and fish habitat as a result of changes to water quality and sediment quality in surface water and groundwater.</li> <li>Any potential imbalances in the food web in relation to baseline conditions.</li> <li>Effects on the primary and secondary productivity of water bodies and how project-related effects may affect fish food sources.</li> </ul> </li> </ul>	6	6.3.1
6.3.1	<ul> <li>The effects of changes to the aquatic environment on fish and their habitat, including:         <ul> <li>The anticipated changes in the composition and characteristics of the populations of various fish species, including shellfish and forage fish.</li> <li>Any modifications in migration or local movements (upstream and downstream migration, and lateral movements) following the construction and operation of works (physical and hydraulic barriers).</li> <li>Any reduction in fish populations as a result of potential overfishing due to increased access to the project area.</li> <li>Any modifications and use of habitats by federally or provincially listed fish species.</li> </ul> </li> <li>A discussion of how project construction timing correlates to key fisheries windows for freshwater species, and any potential effects</li> </ul>	6	6.3.1
	<ul> <li>resulting from overlapping periods.</li> <li>A discussion of how vibration caused by blasting may affect fish behaviour, such as spawning or migrations.</li> </ul>	6	6.3.1.2



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
6.3.2	Migratory Birds (Prior to Mitigation)		
	<ul> <li>Direct and indirect adverse effects on migratory birds, including population level effects that could be caused by all project activities, including, but not limited to:         <ul> <li>Site preparation.</li> <li>Deposit of harmful substances in waters that are frequented by migratory birds (e.g. surface water drainage ponds).</li> </ul> </li> </ul>	6	6.3.2 (6.3.2.1 to 6.3.2.3)
	<ul> <li>Collision risk of migratory birds with any project infrastructure and vehicles.</li> </ul>	6	6.3.2.5
	<ul> <li>Indirect effects caused by increased disturbance (e.g. noise, light, presence of workers), relative abundance movements, and losses or changes in migratory bird habitat, considering the critical breeding and migration periods for the birds.</li> </ul>	6	6.3.2.1 to 6.3.2.4
6.3.3	Species at Risk (Prior to Mitigation)		
	<ul> <li>The potential adverse effects of the project on Species at Risk Act listed species at risk and, where appropriate, critical habitat.</li> </ul>	6	6.3.3
	<ul> <li>The potential adverse effects of the project on species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as extirpated, endangered, threatened, or of special concern.</li> </ul>	6	6.3.3
6.3.4	Indigenous Peoples (Prior to Mitigation)		
	With respect to Indigenous peoples, a description and analysis of how changes to the environment caused by the project will affect the following activities exercised by each Indigenous group:		



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
6.3.4	<ul> <li>The current uses of land and resources for traditional purposes, including, but not limited to:         <ul> <li>Any changes to resources (fish, wildlife, birds, plants or other natural resources) used for traditional purposes (e.g. hunting, fishing, trapping, collection of medicinal plants, use of sacred sites).</li> <li>Any changes or alterations to access into the areas used for traditional purposes, including development of new roads, deactivation or reclamation of access roads and changes to waterways that affect navigation.</li> <li>Any changes to the environment that affect cultural value or importance associated with traditional uses or areas affected by the project (e.g. values or attributes of the area that make it important as a place for inter-generational teaching of language or traditional practices, communal gatherings, integrity of preferred traditional practice areas).</li> <li>How timing of project activities (e.g. construction, aggregate material excavation, or blasting discharges) have the potential to interact with the timing of traditional practices, and any potential effects resulting from overlapping periods.</li> <li>Consideration of the regional context for traditional use, and the value of the project area in that regional context, including alienation of lands from traditional use.</li> <li>Any changes to environmental quality (e.g. air, water, soil), the sensory environment (e.g. noise, light, visual landscape), or perceived disturbance of the environment (e.g. fear of contamination of water or country foods) that could detract from use of the area or lead to avoidance of the area.</li> <li>Any changes to the environment resulting from the presence of workers or increased access to the area by non-Indigenous peoples (e.g. noise, competition for or pressure on resources).</li> </ul> </li> <li>An assessment of the potential to return affected areas to pre-</li> </ul>	6	6.3.4.1 to 6.3.4.3
	<ul> <li>Project conditions to support traditional practices.</li> <li>Human health, considering, but not limited to potential changes in air quality, noise exposure and effects of vibration from blasting, availability of country foods, and water quality. When risks to human health due to changes in one or more of these components are predicted, a complete Human Health Risk Assessment (HHRA) examining all exposure pathways for pollutants of concern may be necessary to adequately characterize potential risks to human health. Where adverse health effects are predicted, any incidental</li> </ul>	6	6.3.4.5
	effects such as effects on current use of lands and resources for traditional purposes will also be assessed.		



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
6.3.4	<ul> <li>Socio-economic conditions, including but not limited to.</li> <li>The use of navigable waters.</li> <li>Forestry and logging operations.</li> <li>Commercial fishing, hunting, trapping, and gathering activities.</li> <li>Commercial outfitters.</li> <li>Recreational use.</li> </ul>	6	6.3.4.1 and 6.3.4.2
	<ul> <li>Physical and cultural heritage, and structure, site or thing of historical, archaeological, paleontological or architectural significance to groups, including, but not limited to:         <ul> <li>The loss or destruction of physical and cultural heritage.</li> <li>Changes to access to physical and cultural heritage.</li> <li>Changes to the cultural value or importance associated with physical and cultural heritage.</li> </ul> </li> </ul>	6	6.3.4.4
6.3.5	<ul> <li>Other Valued Components that may be Affected as a Result of a Federal Decision or due to Effects on Federal Lands, Another Province or Outside Canada (Prior to Mitigation)</li> <li>If there is potential for the project to result in environmental changes on federal lands, lands in a province other than Manitoba, or outside of Canada as a result of the project, descriptions of effects will include a consideration of:</li> <li>Changes to ambient air quality on federal lands that may be affected by the project, including any changes in the concentration of the following contaminants, as relevant: total suspended particulates, fine particulates (PM<sub>2.5</sub>), particulate matters up to 10 micrometers in size (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>), volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), and diesel particulates presented in concentration values comparable to guidelines (i.e. μg/m³).</li> </ul>	6	6.3.5
	Changes to interprovincial wildlife, including any changes to the Pen Island range eastern migratory woodland caribou population, habitat, movement or migratory corridors that may extend from Manitoba to Ontario.	6	6.2.5.5.1
	An estimate of the direct greenhouse gas emissions associated with all phases of the project in a regional, provincial, national and international context, as well as any mitigation measures proposed to minimize greenhouse gas emissions. This information is to be presented by individual pollutant and should also be summarized in CO <sub>2</sub> equivalent per year.	6	6.2.1.1



Guidelines			Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section	
6.3.5	<ul> <li>If there is the potential for a change to the environment arising as a result of a federal decision(s), include a description of the specific project components for which a federal authorization/decision is required, and an assessment of any other valued components (not already covered in other subsections of these guidelines) that may be affected by the changes to the environment caused by these specific project components. Include a consideration of the following:         <ul> <li>Changes to the use of waterways and water bodies.</li> <li>Effects to water quality, wetlands and aquatic invertebrate species at risk.</li> <li>Changes to recreational navigation.</li> <li>Effects to commercial trapping.</li> </ul> </li> </ul>	6	6.3.5	
6.4	Mitigation			
	Describe the standard mitigation practices, policies and commitments that constitute technically and economically feasible mitigation measures and that will be applied as part of standard practice regardless of location. Then describe the project's environmental protection plan and its environmental management system, through which the plan will be delivered. The plan will provide an overall perspective on how potentially adverse effects would be minimized and managed over time. Further, discuss the mechanisms that would be used to require contractors and subcontractors to comply with these commitments and policies and with auditing and enforcement programs.  Describe mitigation measures that are specific to each environmental	8	8.1 to 8.6	
	effect identified. Mitigation measures will be written as specific commitments that clearly describe how intended process to implement them and the environmental outcome the mitigation is designed to address. Where mitigation measures have been identified in relation to species and/or critical habitat listed under the Species at Risk Act, the mitigation measures will be consistent with any applicable recovery strategy and action plans.	6	6.4 (6.4.1 to 6.4.10); Appendix 6-4	
	Specify the actions, works, minimal disturbance footprint techniques, best available technology, corrective measures, or additions planned during the project's various phases to eliminate or reduce the significance of adverse effects. Also present an assessment of the effectiveness of the proposed technically and economically feasible mitigation measures. The reasons for determining if the mitigation measure reduces the significance of an adverse effect will be made explicit.	6	6.4 (6.4.1 to 6.4.10); Appendices 6-4 and 6-5	
	Indicate what other technically and economically feasible mitigation measures were considered, and explain why they were rejected. Trade-offs between cost savings and effectiveness of the various forms of mitigation will be justified. Identify who is responsible for the implementation of these measures and the system of accountability.	8	8.2 to 8.5	



Guidelines Section (Part 2)		Location in EIS	
	Summary of EIS Guideline Requirements	Chapter	Section
6.4	Where mitigation measures are proposed to be implemented for which there is little experience or for which there is some question as to their effectiveness, the potential risks and effects to the environment should those measures not be effective will be clearly and concisely described. In addition, identify the extent to which technology innovations will help mitigate environmental effects. Where possible, provide detailed information on the nature of these measures, their implementation, management, and the requirements of the follow-up program.	9	9.1
	Adaptive management is not considered as a mitigation measure, but if the follow-up program (refer to section 8) indicates that corrective action is required, the proposed approach for managing the action should be identified.	9	9.1 and 9.2
6.5	Significance of Residual Effects  After having established the technically and economically feasible mitigation measures, present any residual environmental effects of the project on the VCs identified in section 6.3. The residual effects, even if very small or deemed insignificant will be described.	6	6.5
	Provide an analysis of the significance of the residual environmental effects that are considered adverse, using guidance described in section 4 of the Agency's Operational Policy Statement, "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects under the Canadian Environmental Assessment Act, 2012".	6 7	6.5; Appendix 6-5; Appendix 7-1



Guidelines		Location in EIS	
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	Identify the criteria used to assign significance ratings to any predicted adverse effects. It will contain clear and sufficient information to enable the Agency or review panel, technical and regulatory agencies, Indigenous groups and the public to review the proponent's analysis of the significance of effects. Document the terms used to describe the level of significance. The following criteria should be used in determining the significance of residual effects:  Magnitude.  Geographic extent.  Timing.  Duration.  Frequency.  Reversibility.  Ecological and social context  Existence of environmental standards, guidelines, or objectives for assessing the Effect.  In assessing significance against these criteria, where possible, use relevant existing regulatory documents, environmental standards, guidelines, or objectives such as prescribed maximum levels of emissions or discharges of specific hazardous agents into the environment. Include a section which explains the assumptions, definitions and limits to the criteria mentioned above in order to maintain consistency between the effects on each VC.	4	4.5.5; Tables 4.4 and 4.5
6.5	Where significant adverse effects are identified, set out the probability (likelihood) that they will occur, and describe the degree of scientific uncertainty related to the data and methods used within the framework of its environmental analysis.	6	N/A
6.6	Other Effects to Consider		
6.6.1.	Effects of Potential Accidents or Malfunctions  The failure of certain works caused by human error or exceptional natural events (e.g., flooding, earthquake) could cause major effects. Conduct an analysis of the risks of accidents and malfunctions, determine their effects and present a preliminary emergency measures.	6	6.6.1 and 6.6.1.6
	Taking into account the lifespan of different project components, identify the probability of potential accidents and malfunctions related to the project, including an explanation of how those events were identified, potential consequences (including the environmental effects as defined in Section 5 of CEAA 2012), the plausible worst case scenarios and the effects of these scenarios. Potential spills of hydrocarbons and ammonium nitrate to fishbearing waterways will be considered in all seasons.	6	6.6.1.1 to 6.6.1.4



Guidelines			Location in EIS		
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section		
	Include an identification of the magnitude of an accident and/or malfunction, including the quantity, mechanism, rate, form and characteristics of the contaminants and other materials likely to be released into the environment during the accident and malfunction events and would potentially result in an adverse environmental effect as defined in Section 5 of CEAA 2012.	6	6.6.1.1		
	Describe the safeguards that have been established to protect against such occurrences and the contingency and emergency response procedures in place if such events do occur.	6 8	6.6.1.5; 8.3 to 8.5		
6.6.2.	Effects of the Environment on the Project  Consider how local conditions and natural hazards, such as severe and/or extreme weather conditions and external events (e.g. flooding, drought, ice jams, landslides, avalanches, erosion, subsidence, fire, outflow conditions and seismic events), could adversely affect the project and how this in turn could result in effects to the environment (e.g., extreme environmental conditions result in malfunctions and accidental events). These events will be considered in different probability patterns (i.e., 5-year flood vs. 100-year flood). Longer-term effects of climate change will also be discussed. This discussion will include a description of climate data used.	6	6.6.2		
	Provide details of planning, design and construction strategies intended to minimize the potential environmental effects of the environment on the project.	6	6.6.2		
6.6.3.	Cumulative Effects Assessment  Identify and assess the project's cumulative effects using the approach described in the Agency's Operational Policy Statement entitled Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012 and the guide entitled Technical Guidance for Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012. Include the following:	6	6.6.3		
	<ul> <li>Identify and provide a rationale for the VCs that will constitute the focus of the cumulative effects assessment, focussing the cumulative effects assessment on the VCs most likely to be affected by the project and other project and activities. To this end, the proponent must consider, without limiting itself thereto, the following components likely to be affected by the project:         <ul> <li>Fish and fish habitat, including valued fish species.</li> <li>Species at risk.</li> <li>Migratory birds.</li> <li>Indigenous peoples.</li> <li>Any VCs associated with subsection 5(2) of CEAA 2012.</li> </ul> </li> </ul>	6	6.6.3.1.1		



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	Identify and justify the spatial and temporal boundaries for the cumulative effect assessment for each VC selected. The boundaries for the cumulative effects assessments will generally be different for each VC considered. These cumulative effects boundaries will also generally be larger than the boundaries for the corresponding project effects.	6	6.6.3.1.2
	Identify the sources of potential cumulative effects. Specify other projects or activities that have been or that are likely to be carried out that could cause effects on each selected VC within the boundaries defined, and whose effects would act in combination with the residual effects of the project. This assessment may consider the results of any relevant study conducted by a committee established under section 73 or 74 of CEAA 2012.	6	6.6.3.1.3
	Assess the cumulative effects on each VC selected by comparing the future scenario with the project and without the project. Effects of past activities (activities that have been carried out) will be used to contextualize the current state of the VC. In assessing the cumulative effects on current use of lands and resources for traditional purposes, the assessment will focus on the cumulative effects on the relevant activity (e.g. hunting, fishing, trapping, plant harvesting).	6	6.6.3.2
	Describe the mitigation measures that are technically and economically feasible. Assess the effectiveness of the measures applied to mitigate the cumulative effects. In cases where measures exist that are beyond the scope of responsibility that could be effectively applied to mitigate these effects, identify these effects and the parties that have the authority to act. In such cases, summarize the discussions that took place with the other parties in order to implement the necessary measures over the long term.	6	6.6.3.3; Appendix 6-4
6.6.3.	Determine the significance of the cumulative effects.	6	6.6.3.4
	Develop a follow-up program to verify the accuracy of the assessment or to dispel the uncertainty concerning the effectiveness of mitigation measures for certain cumulative effects.	6	6.6.3.5
	Consult with key stakeholders prior to finalizing the choice of VCs and the appropriate boundaries to assess cumulative effects.	6	6.6.3.1.1
7	SUMMARY OF ENVIRONMENTAL EFFECTS ASSESSMENT		
	<ul> <li>The EIS will contain a table summarising the following key information:</li> <li>Potential environmental effects.</li> <li>Proposed mitigation measures to address the effects identified above.</li> <li>Potential residual effects and the significance of the residual environmental effects.</li> </ul>	7	Appendix 7-1



Guidelines			Location in EIS		
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section		
	In a second table, summarize all key mitigation measures and commitments which will more specifically mitigate any significant adverse effects of the project on valued components (i.e., those measures that are essential to ensure that the project will not result in significant adverse environmental effects).	N/A	N/A		
8	FOLLOW-UP AND MONITORING PROGRAMS				
8.1	Follow-up Program  Present a preliminary follow-up program that includes:  Objectives of the follow-up program and the VCs targeted by the program.	9	9.1		
	List of elements requiring follow-up.	9	9.1		
	Number of follow-up studies planned as well as their main characteristics (list of the parameters to be measured, planned implementation timetable, etc.).	9	9.1		
	Intervention mechanism used in the event that an unexpected deterioration of the environment is observed.	8 9	Appendix 8-1 (2.6.2); 9.1		
	Mechanism to disseminate follow-up results among the concerned populations.	5 8 9	5.1 and 5.7; Appendix 8-1 (1.3, 1.5 and 1.6); 9.3.4 and 9.4		
	<ul> <li>Accessibility and sharing of data for the general population.</li> </ul>	5 8 9	5.1 and 5.7; Appendix 8-1 (2.7); 9.3.4 and 9.4		
	<ul> <li>Opportunity for the proponent to take advantage of the participation of Indigenous groups and stakeholders on the affected territory, during the implementation of the program.</li> </ul>	5 8 9	5.1 and 5.7; Appendix 8-1 (1.3 and 1.5); 9.3.4 and 9.4		
	Involvement of local and regional organizations in the design, implementation and evaluation of the follow-up results as well as any updates, including a communication mechanism between these organizations and the proponent.	5 8 9	5.1 and 5.7; Appendix 8-1 (2.6); 9.3.4 and 9.4		
8.2	Monitoring				
	Prepare an environmental monitoring program for all phases of the project, including the:  Identification of the interventions that pose risks to one or more of the environmental and/or valued components and the measures and means planned to protect the environment.	8 9	Appendix 8-1 (2.6.4); 9.3.1 to 9.3.4		
	Description of the characteristics of the monitoring program where foreseeable (e.g., location of interventions, planned protocols, list of measured parameters, analytical methods employed, schedule, human, and financial resources required).	8 9	Appendix 8-1; 9.3.1 to 9.3.4		



Guidelines			Location in EIS
Section (Part 2)	Summary of EIS Guideline Requirements	Chapter	Section
	<ul> <li>Description of intervention mechanisms in the event of the observation of non-compliance with the legal and environmental</li> </ul>	8	Appendix 8-1 (2.5.4 and 2.8);
	requirements or with the obligations imposed on contractors by the environmental provisions of their contracts.	9	9.3.1 to 9.3.4 and 9.4
	<ul> <li>Guidelines for preparing monitoring reports (number, content, frequency, format) that will be sent to the authorities concerned.</li> </ul>	8 9	Appendix 8-1 (2.7); 9.4
	<ul> <li>Plans to engage Indigenous groups in monitoring, where appropriate.</li> </ul>	5 8	5.1 and 5.7; Appendix 8-1
		9	(2.6.2, 2.6.3, 2.7.1.2); 9.4



# CONCORDANCE TABLE TO IDENTIFY WHERE THE ENVIRONMENTAL ASSESSMENT SCOPING DOCUMENT REQUIREMENTS ARE MET IN THE ENVIRONMENTAL IMPACT STATEMENT (EIS)



### CONCORDANCE TABLE TO IDENTIFY WHERE THE ENVIRONMENTAL ASSESSMENT SCOPING DOCUMENT REQUIREMENTS ARE MET IN THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

Scoping		Location in EIS	
Document	Scoping Document Requirements	Chapter	Section
Section 1	INTRODUCTION	-	
1.1	Purpose of Scoping Document		
1.1	The Scoping Document has been developed with consideration of:		
	Requirements under <i>The Environment Act</i> E125 (Manitoba) for		
	transportation developments.	1	1.4.2
	<ul> <li>Importance and need to use Indigenous and local knowledge and</li> </ul>	1	1.3.7
	public and stakeholder views in the assessment process.	4	4.4.3 and 4.4.4
		5	5.1
1.3	Regulatory Framework		
	The EIS will outline other regulatory and other approvals required for	1	1.4
	Project implementation.		
2	SCOPE OF PROJECT AND ASSESSMENT		
2.1	Scope of Project		
	Project components include:	T	
	<ul> <li>All-season road (141 km) inking Manto Sipi Cree Nation,</li> </ul>		
	Bunibonibee Cree Nation and God's Lake First Nation on new right-	3	3.3.1
	of-way.		
	<ul> <li>Up to two steel girder or concrete bridges at the two major water crossings.</li> </ul>	3	3.3.2
	<ul> <li>Approximately 51 other stream crossings using corrugated metal</li> </ul>		
	culverts.	3	3.3.2
	<ul> <li>Equalization culverts to maintain surficial groundwater movement.</li> </ul>	3	3.3.2
	<ul> <li>Temporary water crossings (construction bridges), access roads and</li> </ul>	_	3.3.2.4, 3.3.3, 3.3.4,
	trails, camp facilities and laydown (staging) areas.	3	and 3.3.7
	Rock quarries and borrow areas.	3	3.3.5
	The EIS will describe the Project using appropriate figures, diagrams,		
	maps and/or orthophotos, and will include the following:	Ī	
	<ul> <li>Location of the all-season road and associated project works.</li> </ul>	1	1.3
		3	3.3
	<ul> <li>Legal description of land upon which the road will be constructed.</li> </ul>	1	1.3.1 and 1.3.2
	Land ownership, including ownership of mineral rights.	1	1.3.2
	Existing land use and land use designations in place.	1	1.3.2 to 1.3.5
	Proposed schedule for stages of the Project.	3	3.5
	Other federal or provincial approvals, licences, permits, work	1	1.4
	orders and/or authorizations required for the proposed Project.		
	<ul><li>Project funding and sources.</li></ul>	3	3.6
	<ul> <li>Results of Indigenous and public engagement undertaken in conjunction with Project planning.</li> </ul>	5	5.2 to 5.6
	<ul> <li>Plans for decommissioning of temporary infrastructure, facilities</li> </ul>		3.2.5, 3.3.2.4, 3.3.3,
	and work areas.	3	3.3.4, 3.3.5, 3.3.7,
			and 3.4.1.15



Scoping		Lo	Location in EIS	
Document Section	Scoping Document Requirements	Chapter	Section	
2.1	<ul> <li>Plans for eventual abandonment of the existing winter road (not used for the all-season road alignment) connecting Manto Sipi Cree Nation, Bunibonibee Cree Nation and God's Lake First Nation.</li> </ul>	3	3.2.5	
2.2	Scope of Assessment			
	The following factors will be considered in the assessment:	<u> </u>		
	Need and purpose of the proposed Project.	2	2.1	
	<ul> <li>Alternative means of carrying out the proposed Project that are technically and economically feasible, and the environmental effects of any such alternatives.</li> </ul>	2	2.2	
	<ul> <li>Environmental effects of the proposed Project, including the environmental effects of malfunctions or accidents that may occur.</li> </ul>	6	6.2, 6.3 and 6.6.1; Appendix 6-4	
	Effects of the environment on the proposed Project.	6	6.6.2	
	Cumulative environmental effects that are likely to result from the proposed Project in combination with the effects of other projects and activities that have been or will be carried out for the reasonably foreseeable future.	6	6.6.3	
	<ul> <li>Comments from the local communities, other Indigenous people and the public that are received during the Indigenous and Public Engagement Program (IPEP).</li> </ul>	5	5.6; Appendices 5-3 to 5-6	
	<ul> <li>Measures that are technically and economically feasible that would mitigate adverse environmental effects.</li> </ul>	6	6.4; Appendix 6-4	
	Requirements of a follow-up program.	9	9.1	
	<ul> <li>Significance of the residual environmental effects.</li> </ul>	6	6.5; Appendix 6-5	
	The assessment will consider previous studies and activities relating to feasibility, exploration, project siting and prior authorization received from other government agencies.	2 4	2.1 and 2.2; 4.4	
3	ENGAGEMENT			
3.1	Objectives  The overall objective of the IPEP is to provide information on the Project to interested and potentially affected parties and to create meaningful opportunities to receive input on the Project. The IPEP aims to achieve the following:			
	<ul> <li>Provide opportunities for the public and other stakeholders to participate through the environmental assessment process;</li> </ul>	5	5.3 and 5.4	
	<ul> <li>Provide opportunities for involvement of local Indigenous people and residents who may be directly affected by the Project throughout the environmental assessment and the various stages of Project development.</li> </ul>	5	5.2 to 5.4	
	<ul> <li>Receive meaningful input into the Project planning, development and operation and specifically to:</li> <li>Clearly communicate the purpose and scope of the Project.</li> </ul>	5	5.3 and 5.4	
	<ul> <li>Obtain information on biophysical and related features including use of the landscape, key features and heritage</li> </ul>	5	5.1 to 5.4	



Scoping	Scoping Document Requirements	Lo	Location in EIS		
Document Section		Chapter	Section		
	resources, and cultural and traditional practices in the Local Assessment Area.				
3.1	<ul> <li>Identify potential environmental effects and effective mitigation measures, and opportunities to enhance Project benefits.</li> </ul>	6	6.2 to 6.4		
	<ul> <li>Identify the need for follow-up plans and monitoring programs.</li> </ul>	9	9.1		
	<ul> <li>Adopt an adaptive approach to adjust the IPEP in response to stakeholder interests.</li> </ul>	5	5.1.1 and 5.1.2		
	<ul> <li>Communicate to stakeholders how input and information provided was used.</li> </ul>	2 5	2.2.2 5.6		
3.2	Approach				
	Traditional Knowledge (TK) will be incorporated into the environmental assessment process by providing local information pertaining to traditional land uses, economic activities, ceremonial pursuits, as well as local ecological knowledge. TK also facilitates the direct inclusion of local Indigenous communities in project planning and design. TK information will be obtained through use of existing information (with permission), TK studies with the consent of the affected communities and TK workshops, interviews, community meetings and Open Houses.	2 4	2.2.2 4.4		
	The IPEP will extend beyond the local Indigenous communities, with additional Public Open Houses in Winnipeg and presentations to interested stakeholders. Information from previous engagement and Crown consultation initiatives and/or programs such as the Large Area Network Study will also be incorporated. The IPEP will include descriptions of the Project and solicit input on comments and questions relating to the Project and the environmental assessment, prior to submission of the EIS.	5	5.2 to 5.6		
4	ENVIRONMENTAL SETTING	<u>'</u>			
4.1	Biophysical Environment				
4.1.1	Atmospheric Environment The EIS will consider the following attributes in the relevant spatial boundary:	6	6.1.1		
	<ul> <li>Prevailing climate and meteorological conditions including historical and seasonal averages and extremes in monthly temperatures and dates of freeze and thaw; and monthly precipitation and snow cover.</li> </ul>	6	6.1.1.1		
	Local air quality.	6	6.1.1.2		
	Parameters related to climate change.	6	6.1.1.3		
	<ul> <li>Existing greenhouse gas and other emissions sources and production.</li> </ul>	6	6.1.1.3		
4.1.2	Physiography and Landscape				
	The EIS will consider the following attributes in the relevant spatial boundary:				
	<ul> <li>Geology and surficial materials, including geological deposits or resources that may be used for the Project.</li> </ul>	6	6.1.2.1		



Scoping		Lo	Location in EIS	
Document Section	Scoping Document Requirements	Chapter	Section	
	Soils/terrain.	6	6.1.3	
	<ul> <li>Watersheds (including lakes and streams).</li> </ul>	6	6.1.5.1	
4.1.2	Regional surface water/quality.	6	6.1.5.1.4	
	Groundwater conditions.	6	6.1.5.2	
4.1.3	Aquatic Environment and Habitat			
	The EIS will consider the following attributes in the relevant spatial boundary:			
	The diversity of aquatic habitats in the area to be affected by the Project.	6	6.1.6	
	Fish and mollusk species inhabiting the area to be affected by the Project, including those that are important for commercial, recreational, or Aboriginal fisheries, and Species at Risk. Species occurrences will be based on existing information and augmented through sampling.	6	6.1.6 and 6.1.8.2	
	Potential utilization by fish of habitats both upstream and downstream of proposed watercourse crossing locations.	6	6.1.6	
	<ul> <li>Potential fish habitat value and sensitivity to disturbance or alteration in each watercourse at or near the proposed crossing locations. Habitat value and sensitivity will consider habitat for key fish life stages, their relative abundance and importance to fish species.</li> </ul>	6	6.1.6	
	<ul> <li>Site specific surface water quality, including concentrations of water quality parameters that affect the suitability of the environment for aquatic life.</li> </ul>	6	6.1.5.1.4 and 6.1.6	
4.14	Vegetation and Terrestrial Habitat			
	The EIS will consider the following attributes in the relevant spatial boundary:			
	<ul> <li>Ecological land classification using ecological stratification.</li> </ul>	6	6.1.4.1	
	<ul> <li>Vegetation composition, abundance and distribution using Land Cover Classification.</li> </ul>	6	6.1.4.1	
	Fire history in the boreal forest using Provincial forest data.	6	6.1.4.1	
	<ul> <li>Terrestrial and wetland community type descriptions developed from field studies.</li> </ul>	6	6.1.4	
	<ul> <li>Native and introduced species developed from desktop and field studies.</li> </ul>	6	6.1.4.1; Appendix 6-1	
	Plant species of interest using TK studies.	6	6.1.4.1	
	Species at Risk (with a focus on The Endangered Species and Ecosystems Act (Manitoba), Species at Risk Act, Committee on the Status of Endangered Wildlife in Canada, and S1 to S2 Provincial ranked species from desktop and field studies).	6	6.1.4.1 and 6.1.8.1	
4.1.5	Amphibians and Reptiles			
	The EIS will consider the following attributes in the relevant spatial boundary using information generated through desktop investigations, discussions with local people, habitat modeling of			



Scoping		Location in EIS		
Document Section	Scoping Document Requirements	Chapter	Section	
	Valued Component (VC) species and augmented with field investigations:			
4.1.5	<ul> <li>Relative abundance, diversity and habitats of amphibians and reptiles in the area.</li> </ul>	6	6.1.4.6	
	Species at Risk.	6	6.1.4.6 and 6.1.8.1	
4.1.6	Avian Species			
	The EIS will consider the following attributes in the relevant spatial boundary using information generated through desktop investigations, discussions with local people, habitat modeling of VC species and augmented with field investigations:			
	<ul> <li>General information on bird species known or expected to inhabit the area.</li> </ul>	6	6.1.7; Appendix 6-2	
	Relative abundance of bird VC (ex: waterfowl, raptors, game birds, song birds) and the distribution of their habitat.	6	6.1.7	
	<ul> <li>Nesting sites of colonial waterbirds and raptors.</li> </ul>	6	6.1.7	
	Species at Risk.	6	6.1.7 and 6.1.8.1	
4.1.7	Mammals			
	boundary using information generated through desktop investigations, discussions with local people, habitat modeling of VC species and augmented with field investigations using methodologies reviewed by MSD:			
	<ul> <li>General information on mammal species known or expected to inhabit the area.</li> </ul>	6	6.1.4.5	
	<ul> <li>Relative abundance and distribution of mammal VCs including furbearers, moose and caribou.</li> </ul>	6	6.1.4.5	
	Species at Risk.	6	6.1.4.5 and 6.1.8.1	
4.2	Socio-Economic Environment The EIS will consider the following attributes in the relevant spatial boundary:			
	Land and resource use.	6	6.1.9.1, 6.1.9.2 and 6.1.11.3	
	Parks and Designated Protected Areas.	6	6.1.11.2	
	Tourism and recreation.	6	6.1.11.3	
	Human health and safety.	6	6.1.9.3	
	<ul><li>Infrastructure and services.</li></ul>	6	6.1.9.1	
4.3	Indigenous Environment			
	Through TK, the IPEP, prior studies and existing information, the EIS will provide information on the following with respect to Indigenous communities:			
	Community information such as population and services.	6	6.1.9.1	
	Resource use including hunting, fishing, trapping and gathering.	6	6.1.9.1 and 6.1.11.3	
	Traditional and cultural activities.	6	6.1.9.1	
	Heritage and cultural resources.	6	6.1.9.4	



Scoping		Lo	ocation in EIS
Document Section	Scoping Document Requirements	Chapter	Section
5	PROPOSED ASSESSMENT APPROACH		
5.1	Effects Assessment Principles and Objectives		
	The effects assessment will consider the existing environment without the Project, as the baseline condition against which changes caused by the Project will be identified, measured and assessed. The EIS will include consideration of the:		
	<ul> <li>Existing biophysical, socio-economic and Indigenous environments in the relevant spatial boundary.</li> </ul>	4	4.2, 4.3.3, 4.4 and 4.5
	<ul> <li>Project scope and the potential interactions among the Project activities and components of the environment.</li> </ul>	4	4.2, 4.3, and 4.5
	<ul><li>Scientific study and analysis, TK, local/community knowledge, and</li></ul>	4	4.4
	other stakeholder perspectives, comments and questions.	5	5
		6	6.1
	Past and potential future human activities that have and continue	4	4.2
	to affect the environment and how these activities may interact with the Project.	6	6.6.3
	<ul> <li>Sustainability of the proposed Project and effects on Indigenous peoples and communities.</li> </ul>	8	8.7
	Mitigation of adverse effects by avoidance, minimization and other	4	4.5.4
	means and maximizing beneficial effects to the extent practicable.	6	6.6.3
	<ul> <li>Implementation of follow-up actions where beneficial.</li> </ul>	9	9.1
5.2	Effects Assessment Process		
	The effects assessment will include the following steps:		
	<ul> <li>Describe the Project and the existing environment.</li> </ul>	3	3.1 to 3.6
		6	6.1
	Describe temporal and spatial boundaries.	4	4.3.3
	<ul> <li>Identify and assess interactions among the Project activities and environmental components.</li> </ul>	6	6.2 and 6.3
	Identify and describe a selected list of appropriate VCs. These VCs will be used to provide a focus to the assessment and an evaluation of the significance of the potential environmental effects of the Project.	4	4.5.1; Appendix 4-1
	<ul> <li>Identify technically and economically feasible measures to mitigate adverse effects as well as measures to enhance positive effects.</li> </ul>	6	6.4
	Determine the significance of residual effects.	6	6.5 and 6.6.3
5.2.1	Effects Identification		
	The EIS will describe and assess the potential effects of the Project for the construction, operation and maintenance phases of the Project including those on:		
	<ul> <li>The biophysical environment, including physiography and landscape, vegetation, wildlife, fisheries, surface water, groundwater, and forestry resources, including those caused by the potential release of hazardous materials (diesel fuel, used oil, etc.)</li> </ul>	6	6.2 and 6.3.1 to 6.3.3



Scoping		Lo	Location in EIS		
Document Section	Scoping Document Requirements	Chapter	Section		
	or pollutants (emissions, effluents, solid wastes and hazardous wastes) that may be produced.				
5.2.1	<ul> <li>Human health and safety, including, but not necessarily limited to potential effects on human health and safety resulting from the release of pollutants.</li> </ul>	6	6.3.4.5		
	Heritage and cultural resources.	6	6.3.4.4		
	<ul> <li>The exercise of Aboriginal and treaty rights, including, but not necessarily limited to:         <ul> <li>direct effects on communities</li> <li>resource use (ex: including hunting, fishing, trapping, gathering)</li> <li>cultural and traditional activities</li> </ul> </li> </ul>	6	6.3.4.1 to 6.3.4.3		
	Potential socio-economic effects stemming from environmental effects will also be identified and potential climate change implications will be discussed.	6	6.3.4 and 6.6.2.6		
5.2.2	Mitigation and Residual Effects				
	The EIS will identify and describe mitigation or effect management measures proposed to be implemented during the phases of the	6	6.4;		
	Project, including need for off-setting disruption or loss of fish habitat, fish passage, and navigation rights and safety.	8	8.1 to 8.5		
	The EIS will identify and describe residual environmental effects that are anticipated to remain after mitigation measures have been implemented.	6	6.5		
5.2.3	Determination of Significance				
	The EIS will outline the framework to be used in the evaluation of the significance of residual adverse effects by using the following criteria:	4	4.5.5; Tables 4.4 and 4.5		
	<ul> <li>direction or nature of effect (type of effect)</li> </ul>	6	6.5; Appendix 6-5		
	<ul> <li>duration of time that the effect occurs</li> </ul>	6	6.5; Appendix 6-5		
	<ul><li>magnitude (severity) of the effect</li></ul>	6	6.5; Appendix 6-5		
	timing	6	6.5; Appendix 6-5		
	<ul> <li>geographic extent of the effect</li> </ul>	6	6.5; Appendix 6-5		
	frequency of the effect (how often the effect occurs)	6	6.5; Appendix 6-5		
	<ul> <li>reversibility of the effect (if the effect can be reversed)</li> </ul>	6	6.5; Appendix 6-5		
	<ul> <li>ecological and social context (resilience of a VC to adapt to changes as a result of the project)</li> </ul>	6	6.5; Appendix 6-5		
	Characterization of the significance of the residual adverse effects will consider scientific study and analysis, TK, and local knowledge, and will relate to all phases of the Project. The EIS will contain a	6	6.5		



Scoping		Location in EIS		
Document Section	Scoping Document Requirements	Chapter	Section	
Section	conclusion on significance of residual environmental effects			
	supported by scientific rationale and assessment results including			
	IPEP findings.			
5.3	Cumulative Effects Assessment			
	In addition to assessing the direct effects of the Project, the EIS will			
	also include consideration of potential cumulative effects (the			
	potential for Project effects to act in combination with the effects of other past, present and/or reasonably foreseeable future projects in	6	6.6.3	
	the Assessment Area). The EIS will outline the approach and methods	0	0.0.3	
	and will include a description and rationale for the spatial and			
	temporal boundaries used in the cumulative effects assessment.			
6	MONITORING AND FOLLOW-UP	l .		
	The EIS will summarize proposed mitigation measures and follow-up			
	actions where appropriate, including monitoring, inspection and			
	reporting to be implemented during construction, operation and	6	Appendices 6-4 and	
	maintenance of the proposed Project. Monitoring and follow-up will		6-5	
	focus on areas of key potential effects on VCs and will consider various methods such as the implementation of contract specifications,	9	9.1 and 9.3	
	environmental management plans, and emergency response plans, as			
	well as specific biophysical surveys and analysis.			
	Monitoring measures will be considered to facilitate compliance with			
	mitigation measures, confirm effect predictions related to anticipated			
	effects, to determine whether unexpected effects are occurring, and			
	to allow for adaptive management and appropriate mitigation			
	measures if unexpected effects do occur. Required monitoring will be	9	9.1 and 9.3	
	finalized once regulatory requirements are known, and following the			
	issuance of authorizations and regulatory approvals. Monitoring of the environmental effects on local Indigenous people and others who may			
	be directly affected by the Project will be conducted, as required.			
7	REPORT FORMAT AND ORGANIZATION			
	The EIS will contain the following:			
	Executive summary	Will b	pe submitted as a	
	,		rate stand-alone	
		docui	ment with the EIS	
	Introduction and Overview	1	1.1 to 1.6	
	<ul> <li>Proponent, location, regulatory framework</li> </ul>	1	1.1 (0 1.0	
	Project Justification and Alternatives Considered	2	2.1 and 2.2	
	Project Description	3	3.1 to 3.6	
	<ul> <li>Scope, phases, components, activities, schedule and funding</li> </ul>	J	3.1 (0 3.0	
	Environmental Assessment Approach	4	4.1 to 4.5	
	<ul> <li>Scope, sources of information, approach</li> </ul>	7	7.1 (0 4.5	
	<ul> <li>Indigenous and Public Engagement</li> </ul>			
	Objectives and approaches, history, activities, and analysis and	5	5.1 to 5.7	
	discussion of engagement results summarized by community			
	Effects Assessment	6	6.1 to 6.6	



Scoping	Scoping Document Requirements	Location in EIS	
Document Section		Chapter	Section
	<ul> <li>Project setting and baseline conditions, predicted changes to physical environment, effects on VCs, mitigation, conclusion on significance of residual effects</li> </ul>		
	Summary of Environmental Effects Assessment	7	7.1 and 7.2
	Environmental Protection and Sustainable Development	8	8.1 to 8.7
	Follow-up and Monitoring Programs	9	9.1 to 9.4
	<ul><li>References</li><li>Supporting scientific, TK and local knowledge</li></ul>	10	-