Project 6 - All-Season Road

Linking Manto Sipi Cree Nation, Bunibonibee Cree Nation and God's Lake First Nation

Environmental Impact Statement

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Glossary of Terms and Acronyms

GLOSSARY OF TERMS AND ACRONYMS

Term	Acronym	Definition
1:50 year flood event		A flood event that has a 2% probability of occurring in any given year.
Abutment		A structure supporting one end of a bridge span at the same time supporting the embankment which carries the road.
Access route		A path of access to associated portions of a right-of-way, generally temporary and designed for construction-related traffic. Access routes do not make use of existing trails and travel routes, are blocked to public access when not in use and are decommissioned following construction.
Adaptive management		A structured, iterative process of optimal decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. In this way, decision making simultaneously maximizes one or more resource objectives and accrues information needed to improve future management.
Adverse environmental effects		Negative effects on the environment and people that may result from the proposed Project and its activities.
Aggregate		A mineral used for construction purposes or as a constituent of concrete other than in the manufacture of cement and includes sand, gravel, clay, crushed stone and crushed rock.
All-season road		A road that provides year-round vehicular access to the remote and isolated communities in the region.
Amphibian		Cold-blooded animal of the Class *Amphibia* that typically lives on land but breeds in water (ex: frogs, toads, salamanders).
Anthropogenic		Relating to, or resulting from the influence of human beings on nature.
Aquatic		Relating to water; living in or near water, taking place in water.
Aquatic environment		The components related to, living in, or located in or on water or the beds or shores of a water body including but not limited to all organic and inorganic matter and living organisms and their habitat, including fish habitat and their interacting natural systems.
Archaeological site		A place (or group of physical sites) in which evidence of past activity is preserved and which has been, or may be, investigated using the discipline of archaeology and represents a part of the archaeological record.
Area of Special Interest	ASI	ASIs are identified through enduring features analysis and aid in prioritizing which areas are most critical for protection. Enduring features are combinations of soils and surficial geology that are used to represent the biodiversity within Manitoba's 18 natural regions. ASIs are further refined into protected areas proposals through a review process led by Manitoba Sustainable Development with participants from Water Stewardship and Industry, Economic Development and Mines.
Association of State Highway and Transportation Officials		The American Association of State Highway and Transportation Officials is a standards setting body which publishes specifications, test protocols and guidelines which are used in highway design and construction throughout the United States.
Automated Recording Unit	ARU	A recording device that can be pre-programmed for set periods and used for assessment and monitoring of reptiles, amphibians birds and other wildlife.

Term	Acronym	Definition
Average Annual Daily Traffic	AADT	Measure used primarily in transportation planning and transportation engineering. It is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. AADT is a useful and simple measurement of how busy a road is.
Baseline environment		A description of the existing environment conditions prior to a specific development.
Bedrock		The native consolidated rock underlying the surficial unconsolidated soils and rock.
Best Management Practices		Approaches based on known science that, if followed, should allow a proponent to meet required standard(s) or achieve desired objective(s).
Biodiversity		The variability among living organisms in a given area or during a specified period of time from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.
Biophysical		Refers to a hierarchical land classification system with units characterized by distinct biotic and abiotic elements.
Bog		A wetland ecosystem characterized by water table at or just below the surface, an accumulation of peat, acidic conditions and a plant community dominated by Sphagnum moss.
Boreal forest		Needle-leafed evergreen or coniferous forest bordering sub-polar regions.
Boreal Shield Ecozone		The largest Ecozone in Canada extending as a broad inverted arch from northern Saskatchewan east to Newfoundland and passing north and east of Lake Winnipeg and north of the Great Lakes and the St. Lawrence River.
Borrow area		A site where the existing soil/earth has been tested and determined suitable for road embankment construction. Located within the road right-of-way, where possible.
Broad Area Plan		Plan initiated to recognize the need for sustainable planning due to the uniqueness, abundance and importance of the east side of Lake Winnipeg and to follow-up on conclusions of the Climate Change Task Force Report (regarding communities without access to transportation and lack of economic opportunities). It also identified dramatic effects of climate change on winter road and food distribution systems historically relied upon by the remote communities in the area.
Calving		Giving birth to a calf as applied to moose and or caribou in project assessment areas.
Canadian Environmental Assessment Act	CEAA	CEAA establishes the legislative basis for the federal practice of environmental assessment in most regions of Canada.
Canadian Environmental Assessment Act, 2012	CEAA, 2012	CEAA, 2012 implements central elements of the federal government's plan for Responsible Resource Development to modernize the regulatory system and allow for natural resources to be developed in a responsible and timely way for the benefit of all Canadians.
Canadian Environmental Assessment Agency	Agency	A federal body accountable to the Minister of the Environment. The Agency provides high-quality environmental assessments that contribute to informed decision making, in support of sustainable development.

Term	Acronym	Definition
Carbon dioxide	CO_2	CO_2 is a colorless gas with a density about 60% higher than that of dry air. It occurs naturally in Earth's atmosphere as a trace gas. The current concentration is about 0.04% (405 ppm) by volume, having risen from pre-industrial levels of 280 ppm. Natural sources include volcanoes, hot springs and geysers and it is freed from carbonate rocks by dissolution in water and acids.
Carbon dioxide equivalent	CO_2e	CO_2e is a measure for describing a functionally equivalent amount or concentration of carbon dioxide.
Carbon monoxide	CO	CO is a colorless, odorless and tasteless gas that is slightly less dense than air. It is toxic to hemoglobic animals (both invertebrate and vertebrate, including humans) when encountered in concentrations above about 35 ppm, although it is also produced in normal animal metabolism in low quantities and is thought to have some normal biological functions. In the atmosphere, it is spatially variable and short lived, having a role in the formation of ground-level ozone.
Carbon sink		A natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. Bogs are a vital natural carbon sink.
Cast-in-place concrete		Concrete that is deposited in the place where it will harden as an integral part of the structure, as opposed to pre-cast concrete.
Clear-span bridge		Small-scale bridge structure that completely spans a watercourse without altering the stream bed or bank below the ordinary high water mark.
Cofferdam		A temporary enclosing structure used in the construction of structural elements (ex: bridge piers) to isolate an area in a watercourse. The water within the isolated area where construction activity occurs is pumped out so work can be completed in dry conditions.
Commercial trapping		Trapping that is managed through a Registered Trapline System where the line-holder is granted exclusive opportunity to harvest furbearing animals in a certain area, or eligible community members trap within a block.
Committee on the Status of Endangered Wildlife in Canada	COSEWIC	COSEWIC is an independent advisory panel to the Minister of Environment and Climate Change Canada that meets twice a year to assess the status of wildlife species at risk of extinction. Members are wildlife biology experts from academia, government, non-governmental organizations and the private sector responsible for designating wildlife species in danger of disappearing from Canada.
Construction phase		The period associated with construction. For the proposed Project the construction phase is expected to occur over 8 years (2030 to 2038).
Construction Phase Environmental Management Plan	CPEMP	The CPEMP is an environmental management plan that will be developed during the design phase of the project to address environmental risks associated with the project during construction.
Consultation On Sustainable Development Implementation	COSDI	The COSDI report provided recommendations for sustainable development on the east side of Lake Winnipeg including: creation of Broad Area Plans, improved public participation and involvement, a review process and development of a protocol to provide meaningful inclusion of Indigenous communities in land and resource planning and decision-making processes.

Term	Acronym	Definition
Corridor		A designated strip of land between two locations used for infrastructure purposes.
Critical habitat		Habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified and included in recovery strategies or action plans.
Crown land		Land owned by the federal or provincial governments. Authority for control of these public lands rests with the Crown.
Cultural environment		The environment that has developed as a result of human economic and life activity and retains vestiges of such activity (ex: material articles, cultural values and spiritual values).
Culvert		A tunnel carrying a stream or open drain under a road.
Culvert crossings		A culvert installed for the purpose of allowing a pathway of defined flow or run-off from the road right-of-way to pass under and away from a road.
Cumulative effects		Changes to the environment due to a Project combined with the existence of other past, present and reasonably foreseeable physical activities.
Cumulative Effects Assessment	CEA	A process to identify and assess adverse residual effects from the Project on valued components that may become significant when they interact with potential effects of past, present and future physical activities in the region.
Decommissioning		The process of removing something (ex: camp, staging area, access route) from service.
Deposit		A geological process by which material is added to a landform or land mass.
Designated Project		Pursuant to the *Regulation Designating Physical Activities SOR/2012-147* under the *Canadian Environmental Assessment Act*, 2012, one or more physical activities that are a) carried out in Canada or on federal lands, b) designated by regulations made under paragraph 84(a) or designated in an order made by the Minister under subsection 14(2) and c) linked to the same federal authority as specified in those regulations or that order.
Direct effect		The consequence of a cause-effect relationship between a project and a specific environmental component.
Disposal		Final placement of unwanted materials or substances.
East Side Planning Initiative	ESPI	The ESPI was launched by the Manitoba government to bring together local communities, Indigenous, industry and environmental organizations to develop a vision for land and resource use on the east side of Lake Winnipeg. It was expected that this process would result in an overall blueprint for the area to address the boreal forest, protected areas, traditional activities, transportation needs and economic development.
East Side Road Authority	ESRA	The ESRA was established as a provincial Crown Agency to manage the East Side Transportation Initiative. ESRA, however, has been absorbed into Manitoba Infrastructure, which is a provincial government department.
East Side Round Table	ESRT	The ESRT was commissioned to develop the Broad Area Plan for the east side of Lake Winnipeg and included 21 members from local stakeholder groups including First Nations, Métis, local communities, a First Nation Council, as well as environment, industry and recreational organizations.

Term	Acronym	Definition
East Side Transportation Initiative	ESTI	The ESTI was a strategic initiative undertaken by ESRA to provide improved, safe and more reliable transportation service for the remote and isolated communities on the east side of Lake Winnipeg.
Ecodistrict		Part of an ecoregion characterized by distinctive assemblages of relief, geology, landforms and soils, vegetation, water, fauna and land use.
Ecoregion		Part of an ecozone characterized by distinctive regional ecological factors, including climatic, physiography, vegetation, soil, water, fauna and land use.
Ecosystem		A dynamic complex of plants, animals and micro-organisms and their non-living environment interacting as a functional unit. The term ecosystem can describe small scale units (ex: water droplet) as well as large scale units (ex: biosphere).
Ecozone		An area representing large and generalized ecological units characterized by interaction abiotic (non-living) and biotic (living) factors.
Embankment		A long artificial mound of stone or earth built to hold back water or to support a road or as protection.
Emergency Response Plan		A plan of actions to be implemented upon the realization of the emergency situation.
Endangered		A species that is seriously at risk of being permanently lost locally (extirpated) or globally (extinct).
Environment		Components of the earth including a) land, water and air, including all layers of the atmosphere, b) all organic and inorganic matter and living organisms and c) interacting natural systems that include components referred to in a) and b). Effectively described as air, land, water, plant life, animal life and humans.
Environment Act Proposal		An Environment Act Proposal is part of the environmental assessment and licensing process required to receive an Environment Act Licence for construction and operation of projects which are defined as developments under the *Classes of Development Regulation* (Manitoba Regulation 164/88). The process exists to ensure environmental and human health protection, encourage early consultation, allow for full public participation and ensure economic development occurs in an environmentally responsible manner.
Environment and Climate Change Canada	EC	Federal government department responsible for coordinating environmental policies and programs as well as preserving and enhancing the natural environment including water, air, soil, flora and fauna; conserving Canada's renewable resources; conserving and protecting Canada's water resources; forecasting daily weather conditions and warnings and providing detailed meteorological information to all of Canada; enforcing rules relating to boundary waters; and coordinating environmental policies and programs for the federal government. Formerly known as Environment Canada.
Environmental Assessment	EA	An assessment of the environmental effects of a designated project that is conducted in accordance with CEAA. It predicts the potential effects, identifies mitigation measures, assesses whether the project is likely to cause significant adverse residual environmental effects taking into account identified mitigation measures and ensures a follow-up program is designated to verify the accuracy of the EA and effectiveness of any mitigation measures.

Term	Acronym	Definition
Environmental effects		Changes that may be caused to a physical, socio-economic, cultural, historical, traditional, paleontological, architectural, health-related or other environmental or socio-economic component within the legislative authority of the Canadian Parliament.
Environmental Impact Statement	EIS	A detailed technical document prepared by the proponent of a designated project to be assessed pursuant to CEAA, 2012 and *The Environment Act* (Manitoba). The EIS identifies the potential adverse environmental effects of a project including cumulative effects, measures to mitigate those effects and an evaluation of whether the project is likely to cause any significant adverse residual environmental effects.
Environmental Management Plan	EMP	Provides an overall environmental management framework for a project to address environmental risks associated with that project.
Environmental monitoring		Periodic or continuous surveillance or testing, according to a predetermined schedule, of one or more environmental parameters. Usually conducted to determine the level of compliance with stated requirements, or to observe the status and trends of a particular environmental component over time.
Environmental Protection Procedures	EPs	Procedures designed to provide guidance on environmental protection practices for pre-construction and construction activities. Founded on best practices and regulatory requirements.
Environmental Protection Specifications	ES 130s	Environmental Protection Specifications are a component of the Project's Environmental Program that identify Project-specific environmental protection guidelines.
Erosion		By the action of wind, water and ice, is a natural process in which soil and rock material is loosened and removed.
Erosion and Sediment Control	ESC	Erosion and sediment control measures include silt fencing, erosion control blankets, straw wattles and geotextile with the intent to reduce the amount of erosion and control any eroded material from moving into adjacent watercourses.
Equalization culvert		Culvert placed to balance water head and elevation on both sides of an embankment and reduce possible water seepage flow.
Fen		A type of wetland fed by groundwater and runoff, containing peat below the waterline.
Fill		Soil or loose rock used to raise a grade that is manually or mechanically placed.
Fine particulates	$PM_{2.5}$	$PM_{2.5}$ are tiny particles (2.5 microns in diameter and less) that reduce visibility and cause the air to appear hazy and pose a health risk when levels are elevated.
First Nations		A term used to describe Indigenous Peoples in Canada who are not Métis or Inuit.
Fish		Includes (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals and (c) eggs, sperm, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.
Fish habitat		The spawning grounds and nursery, rearing, food supply and migration areas on which fish depend, directly or indirectly, in order to carry out their life processes. Habitat includes the water and the physical and biological components (ex: streambed, banks, vegetation).

Term	Acronym	Definition
Fish salvage		Collecting fish from an isolated section of a watercourse or waterbody where construction or maintenance activities are being completed and relocating them upstream or downstream of this section.
Fish spawning		Deposit of eggs or sperm directly into the water by fish.
Fisheries and Oceans Canada	DFO	Federal department responsible for developing and implementing policies and programs in support of Canada's economic, ecological and scientific interests in oceans and inland waters.
Flood		An overflowing of a large amount of water beyond its normal confines, especially over what is normally dry land.
Flow		Physical motion characteristic of fluids used to describe the movement of surface water in project areas.
Follow-up program		A program for verifying the accuracy of the environmental assessment of a project and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of that project.
Fragmentation		The breaking up of contiguous blocks of habitat into increasingly smaller blocks as a result of direct loss and/or sensory disturbance.
Fugitive dust		Generated from wind erosion caused by roadway construction activities such as rock quarrying or crushing, blasting, excavation, fill placement and road grading.
Furbearer		Furbearers are a diverse group of mammal species traditionally trapped/hunted for their fur, including both carnivores (meat eating predators) and rodents (gnawing animals).
Game Hunting Area	GHA	GHAs are geographic zones where certain regulations apply with regard to hunting a particular wildlife species or group of species. The basic regulations on hunting certain species, including season when a species can be hunted varies by GHA.
Geology		A science that deals with the history of the earth as recorded in rocks.
Geotextile material		Porous fabrics manufactured by weaving or bonding fibers made from synthetic materials for use in construction as separators, reinforcement, filtration and drainage and erosion control.
Geotechnical investigation		An investigation performed to obtain information on the physical properties of soil and rock around a site to design earthworks and foundations for proposed structures and for repair of distress to earthworks and structures caused by subsurface conditions.
Geometric design		Pertaining to roads, it is the branch of highway engineering concerned with the positioning of the physical elements of the roadway according to standards and constraints. The basic objectives in geometric design are to optimize efficiency and safety while minimizing cost and environmental damage.
Granular material		A collection of discrete solid particles, often of uniform grain size. Gravel, sand and crushed stone are common examples of granular materials used for road construction.
Greenhouse Gas	GHG	A gas that contributes to the greenhouse effect by absorbing infrared radiation (ex: carbon dioxide and chlorofluorocarbons).
Groundwater		Water beneath the surface of the land.
Grubbing		Removing and disposing of all stumps, roots, non-merchantable trees and

Term	Acronym	Definition
		overburden material from a designated area.
Habitat		The place or type of site where an organism or population naturally occurs. Species may require different habitats for different uses throughout their lifecycle.
Habitat offsetting		Measures undertaken to counterbalance unavoidable serious harm to fish resulting from a project, with the goal of maintaining or improving the productivity of the fishery. Replacement or increasing the productivity of existing habitat are examples of offsetting measures.
Hazardous materials		Any solid, liquid, or gas product that can harm people, other living organisms, property or the environment.
Heavy equipment		Engineering vehicles specially designed for executing substantive construction tasks (ex: excavator, bull dozer, grader).
Heritage resources		A land or resource (ex: an artifact, object, place) that is considered as heritage or any structure, site or thing is distinguished from other lands and resource by the value placed on it.
Heritage Resources Impact Assessment	HRIA	A process used to assess how a proposed land use or development project will affect potential heritage resources with recommended strategies for avoiding or mitigating adverse effects.
Historic Resources Branch	HRB	The branch of the provincial government responsible for enforcing *The Heritage Resources Act* that protects works of nature or human endeavors that have prehistoric, historic, cultural, natural, scientific or aesthetic value. These include artifacts such as arrowheads or paleontological objects such as fossils and prehistoric or historic human occupation sites, historic landscapes, buildings or structures and the exterior portions of buildings or structures.
Hydraulic		Relating to a liquid moving in a confined space under pressure.
Hydrocarbons		Organic compounds that contain only carbon and hydrogen (ex: gasoline).
Hydrofluorocarbon		Any of a class of partly chlorinated and fluorinated hydrocarbons, used as an alternative to chlorofluorocarbons in foam production, refrigeration and other processes.
Indigenous and Public Engagement Program	IPEP	A program developed by MI to provide meaningful opportunities to engage in dialogue and exchange information about the proposed Project with directly affected communities and interested parties. Through the IPEP local communities were able to provide input to the Project development process by providing feedback on proposed locations of Project components, proposed mitigation measures to avoid or reduce potential adverse effects and by providing local and traditional knowledge of resource use and culturally important sites/areas.
Indigenous people		Indigenous people is a collective name for the original peoples of North America and their descendants. The Constitution of Canada recognizes three groups of Indigenous people: First Nations, Inuit and Métis. These are three distinct peoples with unique histories, languages, cultural practices and spiritual beliefs.

Term	Acronym	Definition
Indigenous Services Canada	ISC	Federal government department responsible for meeting the Government of Canada's obligations to First Nations, Inuit and Metis and for fulfilling the federal government's constitutional responsibilities in the North. Formerly known as Indigenous and Northern Affairs Canada (INAC) and Aboriginal Affairs and Northern Development Canada (AANDC) prior to that.
Indirect effect		A secondary environmental effect that occurs as a result of a change that a project may cause on the environment. At least one step removed from a project activity in terms of cause-effect linkages.
In situ		A Latin phrase meaning 'in the place'; typically to describe on-site testing (ex: surface water quality).
Invasive species		Any species that has been introduced to an environment where it is not native and that has since become a nuisance through rapid spread and increase in numbers, often to the detriment of native species.
Land use		The human modification of natural environment or wilderness into built environment.
Laydown area		An area cleared for temporary storage of construction equipment and supplies, generally covered with rock and/or gravel.
Level of Exposure	L_{ex}	The level of a worker's total exposure to noise in decibels, averaged over the entire work day and adjusted to an equivalent 8-hour exposure (based on a 3 dB exchange rate).
Loam		The loam textural classes of soil have mixtures of sand, silt and clay in different proportions. The great majority of till parent materials in Canada are loams (loam, sandy loam, clay loam) because mixing and direct deposition by the ice does not sort the different particle sizes into distinct size classes.
Local Assessment Area	LAA	The area beyond the Project Footprint where Project effects are measurable (either a 2 km or 20 km corridor centred on the all-season road alignment depending on the Valued Component).
Maintenance		Keeping a structure, fixture or foundation in proper condition in a routine, scheduled or anticipated fashion and preventing its failure or decline.
Management Unit	MU	A MU is a geographical land base within which one or more caribou ranges will be managed in combination for population sustainability, connectivity and habitat goals.
Manitoba Breeding Bird Atlas	MBBA	The MBBA documents the distribution and abundance of all species that breed in Manitoba over a five-year period. Volunteers document breeding activity such as territorial song, nest-building and adults carrying food in 10 km x 10 km grid squares. Observers also conduct point-counts, recording the number of birds singing from a fixed location. The collected data is updated annually on the MBBA web page (www.birdatlas.mb.ca) in the form of interactive maps and other special features.
Manitoba Conservation Data Centre	MBCDC	The MBCDC is a storehouse of information on Manitoba's biodiversity (its plant and animal species), as well as its natural plant communities. The MBCDC functions under the umbrella of NatureServe and NatureServe Canada, a network of over 80 similar centres throughout Canada, the United States and Latin America.

Term	Acronym	Definition
Manitoba Floodway East Side Road Authority	MFESRA	Former name of the East Side Road Authority.
Manitoba Infrastructure	MI	MI is the proponent and will continue to manage the proposed Project. MI is the department of the provincial government responsible for the development of transportation policy and legislation and for the management of the province's vast infrastructure network.
Manitoba Metis Federation	MMF	The MMF was founded in 1967. It promotes the interests and rights of its members in Manitoba and delivers programs and services for the Métis, including those related to child and family services, justice, housing, youth, education, human resources, economic development and natural resources.
Manitoba Sustainable Development	MSD	A department of the Government of Manitoba that oversees environmental stewardship, species at risk, forestry and related matters. The department is overseen by the Minister of Sustainable Development.
Manitoba Water Quality Standards, Objectives and Guidelines	MWQSOG	MWQSOG are one of many tools used to protect, maintain and where necessary, rehabilitate water quality. On November 28th, 2011, the MWQSOG were enshrined in a regulation under Part Two of *The Water Protection Act.* They set out water quality conditions for over 100 materials that, if not exceeded, will protect water quality for various uses including fish and other aquatic life, sources of drinking water, irrigation and livestock watering and recreation.
Material Safety Data Sheet	MSDS	A MSDS is a document that contains information on the potential hazards (ex: health, fire, reactivity, environmental) and how to work safely with the chemical product.
Mechanical brushing		The removal of brush and small trees growing in the right-of-way using a heavy duty rotary cutter on a boom, a hydraulic excavator or the front of a log skidder.
Medicinal plants		Plants used by humans for therapeutic purposes.
Methane	CH_4	CH_4 is a hydrocarbon gas at room temperature (20°C). It is often found as the main part of natural gas. Methane is a greenhouse gas 23 times more effective than carbon dioxide. It slowly oxidates by oxygen to carbon dioxide and water.
Métis		A people of North American Indian and European ancestry who coalesced into a distinct nation in the northwest in the late 18th century. The Métis are one of three distinct Indigenous peoples of Canada, recognized under section 35 in the 1982 *Constitution Act*.
Migratory bird		As defined by federal legislation, "migratory birds" are game, non-game and insectivorous birds native to Canada which show regular seasonal movement between breeding and wintering grounds.
Mitigation measures		Measures developed and implemented for the elimination, reduction or control of the adverse environmental effects of physical activities associated with a project.
Natural resources		Economically referred to as land or raw materials, natural resources occur naturally within environments that exist relatively undisturbed by mankind, in a natural form.

Term	Acronym	Definition
Natural Resources Canada	NRCan	The federal department responsible for natural resources, energy, minerals and metals, forests, earth sciences, mapping and remote sensing. NRCan works to ensure the responsible development of Canada's natural resources, including energy, forests, minerals and metals. NRCan also uses its expertise in earth sciences to build and maintain an up-to-date knowledge base of our landmass and resources.
Natural variation		Changes in a Valued Component (ex: moose population in the local assessment area) that are indistinguishable from background conditions as influenced by naturally-occurring physical and/or biological processes as well as past and current anthropogenic activities.
Nitrogen Oxide	NO_x	A family of poisonous, highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone (smog) on hot summer days. These gases form when fuel is burned at high temperatures and are typically emitted by automobiles, trucks and various non-road vehicles as well as industrial sources such as power plants, industrial boilers, cement kilns and turbines.
Nitrous Oxide	N_2O	Nitrous oxide, commonly known as laughing gas or nitrous, is a powerful oxidizer with an impact on stratospheric ozone comparable to that of CFCs. It is estimated that 30% of the N_2O in the atmosphere is the result of human activity, chiefly agriculture.
Non-Government Organization		Non-government organizations are usually non-profit and sometimes international organizations independent of governments and international governmental organizations (though often funded by governments) that are active in humanitarian, educational, health care, public policy, social, human rights, environmental and other areas to effect changes according to their objectives.
Northern Affairs Community		Communities under the legal administration of the Manitoba Department of Indigenous and Northern Relations under *The Northern Affairs Act*. Northern Affairs Communities are represented by a Mayor and Council or an administrator depending on the size of the community.
Nuisance Beaver Management Program	NBMP	The NBMP includes measures for removal of nuisance beaver as well as for the removal of beaver dams to maintain culvert funtionality.
Operational Policy Statements	OPS	OPS are guidance documents provided by the Canadian Environmental Assessment Agency.
Operations phase		Refers to the point at which construction is complete and the all-season road begins providing the intended transportation link.
Operations Phase Environmental Management Plan	OPEMP	The OPEMP addresses operational and maintenance activities needed for the commissioned or operational portions of the all-season road.
Organic materials		Materials that have been contributed to the soil from living organisms (ex: roots, leaves, micro-organisms, larger animals). The freshly added organic material typically undergoes a series of transformation through microbial processes that release essential nutrients and leave behind less palatable organic materials and organic by-products.
Outcrop		The part of a rock formation that appears above the surface of the surrounding land.

Term	Acronym	Definition
Overburden		The soil (including organic material) or loose material that overlies bedrock.
Ozone	O_3	Ozone, or trioxygen, is an inorganic molecule formed from dioxygen by the action of ultraviolet light and also atmospheric electrical discharges and is present in very low concentrations throughout the Earth's atmosphere (stratosphere). Its concentration is highest in the ozone layer region of the atmosphere, which absorbs most of the Sun's ultraviolet radiation.
Physical environment		Refers to the terrain, geology, hydrogeology, hydrology, air and water of a project area.
Polycyclic Aromatic Hydrocarbons	PAH	Polycyclic aromatic hydrocarbons are a group of more than 100 different chemicals that are released from burning coal, oil, gasoline, trash, tobacco, wood or other organic substances such as charcoal-broiled meat.
Posted speed		Maximum speed permitted at a specific location on a transportation corridor.
Project 6 – All-Season Road Linking Manto Sipi Cree Nation, Bunibonibee Cree Nation and God's Lake First Nation	Project	A 141 km all-season road linking the communities of Manto Sipi Cree Nation, Bunibonibee Cree Nation, God's Lake First Nation and God's Lake Narrows Northern Affairs Community to enable the transfer of people and goods among the communities.
Project alternatives		The various technically and economically feasible ways, other than the proposed way, for a Designated Project to be implemented or carried out.
Project Footprint		The physical space or directly affected area within which Project components and activities are located and the immediately adjacent area, which is the defined limits of the all-season road 100 m right-of-way.
Proponent		The person, body, federal authority or government that proposes the carrying out of a Designated Project (in this case Manitoba Infrastructure).
Protected Areas Initiative	PAI	Manitoba's PAI is a government program dedicated to working together with others to build a network of protected land, freshwater and marine areas that contain the tremendous biological diversity and unique features found in Manitoba's varied landscapes.
Provincial Road	PR	Numbered PRs are the secondary highways in Manitoba.
Provincial Trunk Highway	PTH	Numbered PTHs are the primary highways in Manitoba.
Quarry		A mine established or operated by surface excavation for the purpose of removing consolidated quarry mineral.
Raptors		Birds of prey, including hawks, owls, falcons and eagles.
Regional Assessment Area	RAA	The area beyond the Local Assessment Area within which most potential indirect and cumulative effects are expected to occur. The boundaries of the RAA will vary depending on the Valued Component.
Registered Trapline System	RTL	A commercial furbearer harvest management system whereby a person, the lineholder, is granted the exclusive opportunity to harvest (trap) furbearing animals in a certain area. The system ensures sustainable furbearer populations by controlling the number of trappers in that area and recognizes the lineholder as the steward of the resource. Some RTL sections are blocks where no individual lines exist and all eligible community members may trap within the block.

Term	Acronym	Definition
Residual effect		An environmental effect that remains, or is predicted to remain, even after mitigation measures have been applied.
Respirable Particulate Matter	PM_{10}	PM_{10} are tiny particles (10 microns in diameter and less) small enough that they can get deep into the lungs and cause a broad range of health effects, in particular, respiratory and cardiovascular illnesses.
Riparian area		The area bordering streams, lakes and wetlands that links water to land. The blend of streambed, water, trees, shrubs and grasses in a riparian area provides fish habitat and directly influences it.
Riprap		A layer of durable quarried or field rock placed at both the inlet and outlet of culverts or around bridge abutments to stabilize fill slopes around the drainage structure and prevent water from eroding soil.
Right-of-way	ROW	The 100 m width of area along the road alignment which contains the road bed, ditches, side slopes and back slopes (typically only 60 m width will be cleared unless a wider area required for sight lines for safety purposes).
Road alignment		The route of a road, defined as a series of horizontal tangents and curves, as defined by planners and surveyors.
Royal Canadian Mounted Police	RCMP	The federal and national police force of Canada. The RCMP provides law enforcement at the federal level.
Runoff		Water flow that occurs when soil is infiltrated to full capacity and excess water from rain, snowmelt or other sources flows over the land.
Rock fill		A fill, comprised of large, loosely placed rocks.
Sediment		Any particulate matter that can be transported by fluid flow and which is eventually deposited.
Species at Risk		For the purpose of this Environmental Assessment, Species at Risk are defined as federal species listed under the Species at Risk Act or designated by COSEWIC for listing on Schedule 1 of SARA (extirpated, endangered, threatened and special concern); provincial species listed as Endangered or Threatened under the Manitoba ESEA; and species listed as very rare (provincial status of S1) or rare (provincial status of S2) throughout their range as listed by the MBCDC.
Species at Risk Act	SARA	The SARA is a federal act with the purpose to prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that are no longer exist in the wild in Canada (extirpated), endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened.
Staging areas		Designated area where vehicles, supplies and construction equipment are positioned for access and use for a construction site.
Steel girder		A beam or compound structure composed of steel, carrying principally transverse loads which develop normal reactions at the supports.
Subgrade		The soil prepared to support a pavement structure or a pavement system. It is the foundation for the pavement structure.
Subnivean		The zone within and underneath the snowpack. This is the environment of many animals that hibernate, as it provides insulation and protection from predators.
Substrate		The composition of a streambed, including either mineral or organic materials.

Term	Acronym	Definition
Sulfur oxides	SO_x	Are compounds of sulfur and oxygen molecules, with sulfur dioxide (SO_2) being the greatest concern and most dominant form found in the lower atmosphere. The largest source of SO_2 in the atmosphere is the burning of fossil fuels. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult.
Surface water		Water collecting on the ground or in a stream, river, lake, wetland or ocean; it is related to water collecting as groundwater or atmospheric water.
Sustainable development		Meeting the needs of the present without compromising the ability of future generations to meet their own needs.
Technical Advisory Committee	TAC	Consists of members of federal and provincial government departments responsible for reviewing Environment Act Proposals and providing expert advice on environmental assessments.
Terrain		Refers to the lay of the land. Usually expressed in terms of the elevation, slope and orientation of terrain features. Terrain affects surface water flow and distribution.
The Endangered Species and Ecosystems Act (Manitoba)	ESEA	The ESEA is a provincial act recognizing that: (a) plant and animal species and ecosystems are of ecological, educational, esthetic, historical, medical, recreational and scientific value to Manitoba and the residents of Manitoba; and (b) it is critical that coordinated efforts be made to protect plant and animal species and ecosystems that are at risk and to promote their recovery.
Threatened		A species likely to become endangered if limiting factors are not reversed.
Total Suspended Solids	TSS	Solids that are floating (suspended) in water that can be trapped by a filter. TSS can include a wide variety of material, such as silt, decaying plant and animal matter, industrial wastes and sewage.
Tourism		Travel for recreational, leisure or business purposes.
Traditional Area Land Use Plan	TALUP	A land management plan developed by First Nations describing acceptable land uses within their Traditional Territory.
Traditional knowledge	TK	Knowledge that is held by and unique to, Indigenous people.
Trappers Participation Program	TPP	A program initiated by ESRA in 2013 with the purpose of involving trappers in research and monitoring activities on furbearers to obtain baseline data for the proposed Project.
Travel route		A well-defined route created and/or originally used by Indigenous community members for travel between communities and for traditional purposes. Current use may extend to non-Indigenous individuals and groups.
Treaty Land Entitlement	TLE	Land owed to certain First Nations under the Numbered Treaties in Manitoba signed by the First Nations and the British Crown between 1871 and 1910. Treaties 1 to 10 provided that the Crown would set aside a certain amount of land as reserve land based on the populations of the "Indian bands" at the time of the original surveys for reserve lands. Not all Indian bands received their land entitlement as promised in the Numbered Treaties and this is what is referred to as "Treaty Land Entitlement".
Tributary		A freshwater stream that feeds into a larger stream or river. Tributaries do not flow directly into the ocean.
Turbidity		A measure of the lack of clarity or transparency of water caused by biotic and abiotic suspended or dissolved substances. The higher the concentration of

Term	Acronym	Definition
		these substances in water, the more turbid the water becomes.
Ungulate		Refers to a hoofed animal (ex: moose, caribou, deer).
Valued Component	VC	The environmental element of an ecosystem that is identified as having scientific, social, cultural, economic, historical, archaeological or aesthetic importance. Provide the foundation for the assessment of Project effects.
Volatile Organic Compound	VOC	Organic chemicals that have a high vapor pressure at ordinary room temperature. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air, a trait known as volatility.
Wabanong Nakaygum Okimawin	WNO	Subsequent to the release of the East Side Planning Initiative report titled "Promises to Keep… - Towards a Broad Area Plan for the East Side of Lake Winnipeg," the East Side Round Table was dissolved and replaced by the East Side First Nations Council, later renamed WNO to continue the initiative of broad area planning on the east side of Lake Winnipeg.
Waste disposal		Processing or removal of wastes to a final place of deposition or transfer to a place for re-use or recovery.
Watershed		The area of land that drains into rivers and lakes, which in turn, flow to a common outlet.
Wetland		Land dominated by bogs/fens that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment.
Windrow		Bulldozing stumps, roots, non-merchantable trees and overburden material into a long low ridge parallel to the roadway and inside the right-of-way.
Winter road		A seasonal road constructed each year and only used after ground is frozen.
Workplace Hazardous Materials Information System	WHMIS	Canada's national hazard communication standard. The key elements of the system are hazard classification, cautionary labelling of containers, the provision of (material) safety data sheets and worker education and training programs.

UNITS

Acronym	Unit
°C	celsius
cm	centimetre
dB	decibel
ha	hectare
km	kilometre
km/h	kilometres per hour
km/km^2	kilometres per kilometres squared
km^2	kilometres squared
kPa	kilopascal
kV	kilovolt
l	litre
m	metre
masl	metres above sea level
m^2	metres squared
m^3	metres cubed
µm	micrometer
µS/cm	micro-Siemens per centimeter
mg/L	milligrams per litre
mm	millimetre
ppm	parts per million
%	percent

Concordance Tables

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

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

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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
	▪ Describe corporate and management structures.	1 8	1.1.3; 8.6
	▪ Specify the mechanism used to ensure that corporate policies will be implemented and respected for the project.	1	1.1.4
	▪ Identify key personnel, contractors, and/or sub-contractors responsible for preparing the EIS.	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
	▪ Distance of the project facilities and components to any federal lands.	1	1.3.3
	▪ The environmental significance and value of the geographical setting in which the project will take place and the surrounding area.	1	1.3.4
	▪ 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.	1	1.3.5
	▪ Description of local communities.	1 6	1.3.6; 6.1.9.1 and 6.1.9.2
	▪ Traditional territories and/or consultation areas, treaty lands, Reserve lands and Métis harvesting regions and/or settlements.	1	1.3.7

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
1.4	**Regulatory Framework and the Role of Government** Identify:	1	1.4
	▪ 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.	1	1.4.1
1.4	▪ Legislation and other regulatory approvals that are applicable to the project at the federal, provincial, regional and municipal levels.	1	1.4.1 and 1.4.2
	▪ Government policies, resource management, planning or study initiatives pertinent to the project and/or EA and their implications.	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
	▪ Regional, provincial and/or national objectives, standards or guidelines that have been used to assist in the evaluation of any predicted environmental effects.	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
	▪ Location of access roads (permanent and temporary).	2 8	2.2.4; 8.2
	▪ Location of borrow areas, rock quarries and gravel pits.	2 8	2.2.5; 8.2
	▪ Location and type of bridges and culverts (permanent and temporary).	2	2.2.3
3	**PROJECT DESCRIPTION**		
3.1	**Project Components**		

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	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 3	1.3; Figures 1-1 to 1-12; Figures 3-1 to 3-4 Appendix 3-7
	▪ Overburden, topsoil, gravel and rock storage, and stock piles (footprint, locations, volumes, development plans, and design criteria).	3	3.3 and 3.4.1.8; Tables 3.5 and 3.6 Appendix 3-7
3.1	▪ Borrow areas, rock quarries and gravel pits (footprint, location, development plans including pit phases, geochemical characterization, distance from water bodies, and drainage pathways).	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
	▪ Permanent and temporary linear infrastructures (e.g. access roads), identifying the route of each of these linear infrastructures.	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
	▪ Drinking and industrial water requirements (source, quantity required, need for water treatment).	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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
	▪ Vegetation and surface soil clearance.	3	3.4.1.2
	▪ Construction of access roads (permanent and temporary).	3	3.4.1.6 and 3.4.1.15
	▪ Alteration of linked roadways.	3	3.4.1.7
	▪ Borrow materials transportation and storage (source and quantity).	3 8	3.4.1; 8.3.2
	▪ Explosives storage (location and management).	3 8	3.4.1.16; 8.3.2, and 8.4.2.3
	▪ Blasting (frequency and methods).	3 8	3.4.1.3; 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	▪ Construction of the roadbed.	3	3.4.1.6
	▪ Water management, including water diversions, dewatering or deposition activities required (location, methods and timing).	3	3.3.2.1, 3.3.6, and 3.4.1.9
	▪ Equipment requirements (type and quantity).	3	3.4.1.10
	▪ Contribution to atmospheric emissions, including emissions profile (type, rate and source).	3	3.4.1.11
	▪ Use of administrative buildings, garages, other ancillary facilities.	3	3.4.1.13
	▪ Use of construction camps (location, capacity, wastewater treatment).	3	3.3.7, 3.3.8, and 3.4.1.13
	▪ Number of employees and transportation of employees.	3	3.4.1.14
	▪ Closure of construction borrow pits, gravel pits, rock quarries, and laydown areas.	3	3.4.1.15
3.2.2	***Operation*** The information will include a description of:		
	▪ Equipment requirements (type and quantity).	3	3.4.2.1
	▪ Contribution to atmospheric emissions, including emissions profile (type, rate and source).	3	3.4.2.6
	▪ General road maintenance such as grader work, sign maintenance, weed mowing, dust controls, snow clearing and winter traction material application.	3	3.4.2.3 and 3.4.2.4
	▪ Water management, including roadside drainage maintenance, water diversions, dewatering or deposition activities required in operations (location, methods and timing).	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
	▪ Explosives storage and use (storage location and management).	3	3.4.2.7
	▪ Drilling and blasting, aggregate crushing and sorting (frequency and methods).	3	3.4.2.8

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ Characterization and management of overburden and (storage, handling and transport of the volumes generated, mineralogical characterization, potential for metal leaching and acid rock drainage).	3	3.4.2.9
	▪ Storage and handling of reagents, petroleum products, chemical products, hazardous materials and residual materials.	3	3.4.2.10
	▪ Use of administrative buildings, garages, other ancillary facilities (location, capacity, waste and wastewater treatment).	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
	▪ 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.	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:		
	▪ 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.	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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 6	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ 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.	5	5.3.3 and 5.6; Appendices 5-2 and 5-3; Annex A
	▪ Views expressed by each group on the effectiveness of the mitigation or accommodation measures.	5	5.3.2, 5.3.3 and 5.6; Appendices 5-2 and 5-3; Annex A
	▪ 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 perspective).	5 6	5.3, 5.4.2.1 and 5.6; Appendix 5-3; 6.3.4.1 (6.3.4.1.1 to 6.3.4.1.4)
	▪ Comments, specific issues and concerns raised by potentially affected groups and how the key concerns were responded to or addressed.	5	5.6; Appendices 5-1 to 5-3
	▪ Changes made to the project design and implementation directly as a result of discussions with potentially affected groups.	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
	▪ 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.	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
	▪ Any future planned engagement activities.	5	5.7
	▪ 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.	5	5.3 and 5.5

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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. 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.	5 Annex	5.2 to 5.6; Appendices 5-1 to 5-4; Appendices 5-12 and 5-13; 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 ▪ God's Lake First 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 ▪ 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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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/m^3): total suspended particulates, fine particulates smaller than 2.5 microns ($PM_{2.5}$), respirable particulates of less than 10 microns (PM_{10}), diesel particulate matter, carbon monoxide (CO), sulphur oxides (SO_x), nitrogen oxides (NO_x), and volatile organic compounds (VOCs).	6	6.1.1.2
6.1.1	▪ Identify and quantify existing greenhouse gas emissions by individual pollutant measured as kilotonnes of CO^2 equivalent per year in the project study areas.	6	6.1.1.3
	▪ Direct and indirect sources of air emissions.	6	6.1.1.2 and 6.1.1.3
	▪ Current provincial/territorial/federal limits for greenhouse gas emission targets.	6	6.1.1.3
	▪ 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.	6	6.1.1.4
	▪ 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.	6	6.1.1.5
	▪ Historical records of relevant meteorological information (e.g. total precipitation (rain and snow); mean, maximum and minimum temperatures; and typical wind speed and direction).	6	6.1.1.1
6.1.2	***Geology and Geochemistry*** ▪ The bedrock and host rock geology of the project area, including a table of geologic descriptions, geological maps and cross-sections of appropriate scale.	6	6.1.2.1
	▪ The geomorphology, topography and geotechnical characteristics of areas proposed for construction of major project components.	6	6.1.2.1 Appendix 3-7

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ 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.	6	6.1.2.1
	▪ Geological hazards that exist in the areas planned for the project facilities and infrastructure, including: o History of seismic activity in the area; o Isostatic rise or subsidence; and o Landslides, slope erosion and the potential for ground and rock instability, and subsidence following project activities.	6	6.1.2.3 and 6.6.2.5
	▪ Baseline concentrations of contaminants of concern within the local, regional and downstream receiving environments.	6	6.1.2.1
	▪ Geochemical characterization of leaching potential, including, but not limited to, contaminants of concern from overburden and potential construction material.	6	6.1.2.1
6.1.3	***Topography and Soil*** ▪ Baseline mapping and description of landforms and soils within the local and regional project area.	6	6.1.3.1 and 6.1.3.2; Figure 6-8 Appendix 3-7
	▪ 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.	6	6.1.3.2
6.1.3	▪ Suitability of topsoil and overburden for use in the rehabilitation of disturbed areas.	6	6.1.3.2
	▪ Permafrost conditions including distribution of frozen and unfrozen ground, thermal conditions (ground temperatures), ground ice, thaw sensitivity and active layer thickness.	6	6.1.3.3 and 6.6.2.6
	▪ The potential for thaw settlement and terrain instability associated with ground thawing.	6	6.6.2.6
6.1.4	***Riparian, Wetland and Terrestrial Environments*** ▪ Characterization of soils in the excavation area, in terrestrial and riparian environments, with a description of their past use.	6	6.1.3.2
	▪ Topography, drainage, geology and hydrogeology, and the physicochemical characteristics of potential on-land sediment or soil disposal sites.	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
	▪ 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.	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.1.5	***Groundwater and Surface Water*** ▪ The hydrogeology, including:		
	o The groundwater flow patterns and rates.	6	6.1.5.2
	o A discussion of the hydrogeologic, hydrologic, geomorphic, climatic and anthropogenic controls on groundwater flow.	6	6.1.5.2
	o Temporal changes in groundwater flow (e.g., seasonal and long term changes in water levels).	6	6.1.5.2
	o A delineation and characterization of groundwater surface water interactions including the locations of groundwater discharge to surface water and surface water recharge to groundwater.	6	6.1.5.1.3 and 6.1.5.2
	o Temperature changes in surface water as a result of groundwater-surface water interactions.	6	6.1.5.2
	o Changes to surface water quality, including seasonal changes in runoff entering watercourses.	6	6.1.5.1.4
	o In permafrost regions, describe configuration of frozen ground and taliks and the influence on groundwater flow.	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
	▪ Graphs or tables indicating the seasonal variations in groundwater levels, flow regime, and quality.	6	6.1.5.2
	▪ Local and regional potable groundwater supplies, including their current use and potential for future use.	6	6.1.5.2
	▪ Bedrock fracture sizes and orientations in relation to groundwater flow.	6	6.1.5.2
	▪ 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.	6	6.1.5.1.1
	▪ Hydrological regimes, including monthly, seasonal and annual water flow (discharge) data.	6	6.1.5.1.3
	▪ For each affected water body, the total surface area, bathymetry, maximum and mean depths, water level fluctuations, type of substrate (sediments).	6	6.1.5.1.2
	▪ 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.	6	6.1.5.1.4
	▪ Any local and regional potable surface water resource.	6	6.1.5.1.5

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ Sediment quality analysis for key sites likely to receive project effluents.	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
	▪ 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.	6	6.1.6.1.1
	▪ A list of any fish or invertebrate species at risk that are known to be present.	6	6.1.6.2 and 6.1.8
6.1.6	▪ 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.	6	6.1.6.1. 2 and 6.1.6.1.3
	▪ A description of natural obstacles (e.g. falls, beaver dams) or existing structures (e.g. water crossings) that hinder the free passage of fish.	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
	▪ 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.	6	6.1.7
	▪ Characterization of various ecosystems found in the project area, likely to be affected, based on existing information (land cover types, vegetation).	6	6.1.7

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ 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.	6	6.1.7
6.1.8	***Species at Risk*** ▪ 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.	6	6.1.8
	▪ 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.	6	6.1.8
	▪ 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.	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
	▪ Location of traditional territory (including maps where available).	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
	▪ Location of reserves and communities.	6	Figure 6-17

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ Traditional uses currently practiced or practiced in recent history. ▪ Location of hunting camps, cabins and traditional gathering or teaching grounds. ▪ Fish, wildlife, birds, plants or other natural resources of importance for traditional use. ▪ Areas of concentration of migratory animals, such as breeding, denning and/or wintering areas. ▪ Places where fish, wildlife, birds, plants or other natural resources are harvested, including places that are preferred. ▪ Access and travel routes for conducting traditional practices. ▪ Frequency, duration or timing of traditional practices. ▪ Cultural values associated with the area affected by the project and the traditional uses identified.	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
	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
	▪ 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.	6	6.1.9.3, 6.1.11.3.6 and 6.1.11.5
	▪ Drinking and recreational use water sources (permanent, seasonal, periodic, or temporary).	6	6.1.9.3
6.1.9	▪ 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. ▪ Which country foods are consumed by which groups, how frequently, and where these country foods are harvested.	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
	▪ Commercial activities (e.g. fishing, trapping, hunting, forestry, outfitting).	6	6.1.11.3.1 to 6.1.11.3.3 and 6.1.11.3.7 to 6.1.11.3.9
	▪ Recreational uses.	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. ▪ Archaeological potential and/or artefact places.	6	6.1.9.4

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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 6	5.1 to 5.3; Appendices 5-1 to 5-3; 6.1.9
6.1.10	***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*** ▪ 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.	6	6.1.10
6.1.11	***Human Environment*** ▪ The rural and urban settings likely to be affected by the project.	6	6.1.11.1
	▪ Any federal lands, lands located outside the province or Canada that may be affected by the project.	6	6.1.10
6.1.11	▪ 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.	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
	▪ Location of and proximity of any permanent, seasonal or temporary residences or camps.	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
	▪ Physical and cultural heritage, including structures, sites or things of historical, archaeological, paleontological or architectural significance.	6	6.1.9.4

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.2	**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	***Changes to the Atmospheric Environment (Prior to Mitigation)*** ▪ Changes in air quality (including sulfur oxides (SO_x), nitrous oxides (NO_x), total suspended particulates, fine particulates smaller than 2.5 microns ($PM_{2.5}$), respirable particulates of less than 10 microns (PM_{10}) and diesel particulates presented in concentration values comparable to guidelines (i.e. µg/m^3)).	6	6.2.1.1
	▪ 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. o Justify all estimates and emission factors used in the analysis. o Provide the methods and calculations used for the analysis. o Compare and assess the level of estimated emissions of greenhouse gases to the regional, provincial and federal emission targets.	6	6.2.1.2
	▪ Changes in ambient daytime and night-time noise levels at key receptor points.	6	6.2.1.3
	▪ Changes in night-time light levels.	6	6.2.1.4
6.2.2	***Changes to Groundwater and Surface Water (Prior to Mitigation)*** ▪ Changes to groundwater flow patterns, fluxes, and divides based on the results of groundwater flow modelling.	6	6.2.4.2
	▪ 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.	6	6.2.4.1
	▪ Changes in surface water quality associated with any road effluent releases or surface runoff.	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
	▪ Changes to groundwater recharge/discharge areas and any changes to groundwater infiltration areas.	6	6.2.4.2

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
	▪ Changes to groundwater quality associated with storage or release of any road effluents or drainage including surface runoff.	6	6.2.4.2.2
	▪ Changes to water quality attributed to acid rock drainage and metal leaching associated with the storage of overburden and potential construction material, including:	6	6.2.4.1.4
	o Short term metal leaching properties.	6	6.2.4.1.4
	o Longer term rates of acid generation (if any) and metal leaching.	6	N/A
	o Estimates of the potential for excavated materials (including overburden and potential construction material) to be sources of acid rock drainage or metal leaching.	6	6.2.4.1.4
	o Estimates of potential time to the onset of acid rock drainage or metal leaching.	6	6.2.4.1.4
	o Quantity and quality of leachate from samples of overburden and potential construction material.	6	6.2.4.1.4
	o Quantity and quality of effluent to be released from the site into the receiving waters.	6	6.2.4.1.2 and 6.2.4.1.3
	o Quality of humidity cell or column test liquid from acid rock testing.	6	6.2.4.1.4
	o Surface and seepage water quality from the overburden and construction material stockpiles and other infrastructure during construction and operation and post-closure.	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
	▪ Changes to critical habitat for federally listed species at risk (and/or important habitat for species at risk.	6	6.3.3
6.2.3	▪ Changes to key habitat for species important to current use of lands and resources for traditional purposes.	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.3.1	***Fish and Fish Habitat (Prior to Mitigation)*** ▪ 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: o The geomorphological changes and their effects on hydrodynamic conditions and fish habitats (e.g. modification of substrates, dynamic imbalance, silting of spawning beds). o The modifications of hydrological and hydrometric conditions on fish habitat and on the fish species' life cycle activities (e.g. reproduction, juvenile-rearing, movements). o Potential effects on riparian areas that could affect aquatic biological resources and productivity taking into account any anticipated modifications to fish habitat. o Potential effects on fish and fish habitat as a result of changes to water quality and sediment quality in surface water and groundwater. o Any potential imbalances in the food web in relation to baseline conditions. o Effects on the primary and secondary productivity of water bodies and how project-related effects may affect fish food sources.	6	6.3.1
	▪ The effects of changes to the aquatic environment on fish and their habitat, including: o The anticipated changes in the composition and characteristics of the populations of various fish species, including shellfish and forage fish. o 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). o Any reduction in fish populations as a result of potential overfishing due to increased access to the project area. o Any modifications and use of habitats by federally or provincially listed fish species.	6	6.3.1
6.3.1	▪ A discussion of how project construction timing correlates to key fisheries windows for freshwater species, and any potential effects resulting from overlapping periods.	6	6.3.1
	▪ A discussion of how vibration caused by blasting may affect fish behaviour, such as spawning or migrations.	6	6.3.1.2

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.3.2	***Migratory Birds (Prior to Mitigation)*** ▪ 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: o Site preparation. o Deposit of harmful substances in waters that are frequented by migratory birds (e.g. surface water drainage ponds).	6	6.3.2 (6.3.2.1 to 6.3.2.3)
	▪ Collision risk of migratory birds with any project infrastructure and vehicles.	6	6.3.2.5
	▪ 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.	6	6.3.2.1 to 6.3.2.4
6.3.3	***Species at Risk (Prior to Mitigation)*** ▪ The potential adverse effects of the project on Species at Risk Act listed species at risk and, where appropriate, critical habitat.	6	6.3.3
	▪ 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 .	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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.3.4	▪ The current uses of land and resources for traditional purposes, including, but not limited to: o 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). o 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. o 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). o 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. o 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. o 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. o 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). o An assessment of the potential to return affected areas to pre-project conditions to support traditional practices.	6	6.3.4.1 to 6.3.4.3
	▪ 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 effects such as effects on current use of lands and resources for traditional purposes will also be assessed.	6	6.3.4.5

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.3.4	▪ Socio-economic conditions, including but not limited to. o The use of navigable waters. o Forestry and logging operations. o Commercial fishing, hunting, trapping, and gathering activities. o Commercial outfitters. o Recreational use.	6	6.3.4.1 and 6.3.4.2
	▪ Physical and cultural heritage, and structure, site or thing of historical, archaeological, paleontological or architectural significance to groups, including, but not limited to: o The loss or destruction of physical and cultural heritage. o Changes to access to physical and cultural heritage. o Changes to the cultural value or importance associated with physical and cultural heritage.	6	6.3.4.4
6.3.5	***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)*** 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: ▪ 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 ($PM_{2.5}$), particulate matters up to 10 micrometers in size (PM_{10}), sulfur oxides (SO_x), volatile organic compounds (VOCs), nitrogen oxides (NO_x), and diesel particulates presented in concentration values comparable to guidelines (i.e. $\mu g/m^3$).	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_2 equivalent per year.	6	6.2.1.1

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		Chapter	Section
6.3.5	▪ 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: o Changes to the use of waterways and water bodies. o Effects to water quality, wetlands and aquatic invertebrate species at risk. o Changes to recreational navigation. o Effects to commercial trapping.	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 sub-contractors to comply with these commitments and policies and with auditing and enforcement programs.	8	8.1 to 8.6
	Describe mitigation measures that are specific to each environmental 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)	Summary of EIS Guideline Requirements	Location in EIS	
		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 Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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 fish-bearing waterways will be considered in all seasons.	6	6.6.1.1 to 6.6.1.4

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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
	▪ 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: o Fish and fish habitat, including valued fish species. o Species at risk. o Migratory birds. o Indigenous peoples. o Any VCs associated with subsection 5(2) of CEAA 2012.	6	6.6.3.1.1

Guidelines Section (Part 2)	Summary of EIS Guideline Requirements	Location in EIS	
		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**		
	The EIS will contain a table summarising the following key information: ▪ Potential environmental effects. ▪ Proposed mitigation measures to address the effects identified above. ▪ Potential residual effects and the significance of the residual environmental effects.	7	Appendix 7-1

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

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Scoping Document Section	Scoping Document Requirements	Location in EIS	
		Chapter	Section
1	**INTRODUCTION**		
1.1	**Purpose of Scoping Document** The Scoping Document has been developed with consideration of:		
	▪ Requirements under *The Environment Act* E125 (Manitoba) for transportation developments.	1	1.4.2
	▪ Importance and need to use Indigenous and local knowledge and public and stakeholder views in the assessment process.	1 4 5	1.3.7 4.4.3 and 4.4.4 5.1
1.3	**Regulatory Framework** The EIS will outline other regulatory and other approvals required for Project implementation.	1	1.4
2	**SCOPE OF PROJECT AND ASSESSMENT**		
2.1	**Scope of Project** Project components include:		
	▪ All-season road (141 km) inking Manto Sipi Cree Nation, Bunibonibee Cree Nation and God's Lake First Nation on new right-of-way.	3	3.3.1
	▪ Up to two steel girder or concrete bridges at the two major water crossings.	3	3.3.2
	▪ Approximately 51 other stream crossings using corrugated metal culverts.	3	3.3.2
	▪ Equalization culverts to maintain surficial groundwater movement.	3	3.3.2
	▪ Temporary water crossings (construction bridges), access roads and trails, camp facilities and laydown (staging) areas.	3	3.3.2.4, 3.3.3, 3.3.4, 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:		
	▪ Location of the all-season road and associated project works.	1 3	1.3 3.3
	▪ Legal description of land upon which the road will be constructed.	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 orders and/or authorizations required for the proposed Project.	1	1.4
	▪ Project funding and sources.	3	3.6
	▪ Results of Indigenous and public engagement undertaken in conjunction with Project planning.	5	5.2 to 5.6
	▪ Plans for decommissioning of temporary infrastructure, facilities and work areas.	3	3.2.5, 3.3.2.4, 3.3.3, 3.3.4, 3.3.5, 3.3.7, and 3.4.1.15

Scoping Document Section	Scoping Document Requirements	Location in EIS	
		Chapter	Section
2.1	▪ 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.	3	3.2.5
2.2	**Scope of Assessment** The following factors will be considered in the assessment:		
	▪ Need and purpose of the proposed Project.	2	2.1
	▪ Alternative means of carrying out the proposed Project that are technically and economically feasible, and the environmental effects of any such alternatives.	2	2.2
	▪ Environmental effects of the proposed Project, including the environmental effects of malfunctions or accidents that may occur.	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
	▪ Comments from the local communities, other Indigenous people and the public that are received during the Indigenous and Public Engagement Program (IPEP).	5	5.6; Appendices 5-3 to 5-6
	▪ Measures that are technically and economically feasible that would mitigate adverse environmental effects.	6	6.4; Appendix 6-4
	▪ Requirements of a follow-up program.	9	9.1
	▪ Significance of the residual environmental effects.	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:		
	▪ Provide opportunities for the public and other stakeholders to participate through the environmental assessment process;	5	5.3 and 5.4
	▪ 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.	5	5.2 to 5.4
	▪ Receive meaningful input into the Project planning, development and operation and specifically to: o Clearly communicate the purpose and scope of the Project.	5	5.3 and 5.4
	o Obtain information on biophysical and related features including use of the landscape, key features and heritage	5	5.1 to 5.4