

# 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 <i>Amphibia</i> 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.

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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-leaved 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.
<i>Canadian Environmental Assessment Act</i>	CEAA	CEAA establishes the legislative basis for the federal practice of environmental assessment in most regions of Canada.
<i>Canadian Environmental Assessment Act, 2012</i>	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 <sub>2</sub>	CO <sub>2</sub> 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 <sub>2</sub> e	CO <sub>2</sub> e 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 hemoglobin 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 lineholder 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 <i>Regulation Designating Physical Activities SOR/2012-147</i> under the <i>Canadian Environmental Assessment Act, 2012</i> , 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.

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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 <i>Classes of Development Regulation</i> (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.

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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 <i>The Environment Act</i> (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 <sub>2.5</sub>	PM <sub>2.5</sub> 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).

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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 <i>The Heritage Resources Act</i> 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.

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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.
<i>In situ</i>		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	Lex	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 ( <a href="http://www.birdatlas.mb.ca">www.birdatlas.mb.ca</a> ) 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 <i>The Water Protection Act</i> . 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 <sub>4</sub>	CH <sub>4</sub> 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 <i>Constitution Act</i> .
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 <sub>x</sub>	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 <sub>2</sub> O	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 <sub>2</sub> O 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 <i>The Northern Affairs Act</i> . 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 functionality.
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.

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Overburden		The soil (including organic material) or loose material that overlies bedrock.
Ozone	O <sub>3</sub>	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.

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Residual effect		An environmental effect that remains, or is predicted to remain, even after mitigation measures have been applied.
Respirable Particulate Matter	PM <sub>10</sub>	PM <sub>10</sub> 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.
<i>Species at Risk Act</i>	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 <sub>x</sub>	Are compounds of sulfur and oxygen molecules, with sulfur dioxide (SO <sub>2</sub> ) being the greatest concern and most dominant form found in the lower atmosphere. The largest source of SO <sub>2</sub> in the atmosphere is the burning of fossil fuels. Short-term exposures to SO <sub>2</sub> 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.
<i>The Endangered Species and Ecosystems Act (Manitoba)</i>	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

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
		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 sublime 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 <sup>2</sup>	kilometres per kilometres squared
km <sup>2</sup>	kilometres squared
kPa	kilopascal
kV	kilovolt
l	litre
m	metre
masl	metres above sea level
m <sup>2</sup>	metres squared
m <sup>3</sup>	metres cubed
µm	micrometer
µS/cm	micro-Siemens per centimeter
mg/L	milligrams per litre
mm	millimetre
ppm	parts per million
%	percent