



MACKENZIE VALLEY HIGHWAY PROJECT

DEVELOPER'S ASSESSMENT REPORT

Mandate commitment of the 19th Legislative Assembly

October 2023

Government of
Northwest Territories

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English

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French

Kīspin ki nitawih̄tīn ē nīh̄yawih̄k ōma ācimōwin, tipwāsinān.

Cree

Tłıchq̄ yatı k'èè. Dı wegodi newq̄ dè, gots'ō gonede.

Tłıchq̄

ʔerih̄t'is Dēne Sų́nė yatı t'a huts'elkēr xa beyáyatı theʔą ʔat'e, nuwe ts'ēn yóttı.

Chipewyan

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K'áhshó got'jne xədə k'é hederı ʔedjht'é yerıniwę nıde dúle.

North Slavey

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Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqłuta.

Inuvialuktun

ĆˆdŁ n nŋˆbΔˆ ΛrLJΔrˆ Δˆb n DŁˆsb/ L J nˆ, DŁˆnˆ Δˆ DŁˆb c rˆaˆsb D nˆ.

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Abbreviations

%	percent
%HA	percent highly annoyed
<	less than
>	greater than
≤	less than or equal to
≥	greater than or equal to
°C	degrees Celsius
µm	micrometre
µS/cm	microsiemens per centimetre
2SLGBTQQIA+	Two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex and additional sexually and gender diverse people
3D	three-dimensional
AC	Aurora College
ACCWM	Advisory Committee for Cooperation on Wildlife Management
AER	Alberta Energy Regulator
AIA	Archaeological Impact Assessment
AN	ammonium nitrate
ANFO	ammonium nitrate/fuel oil
AOA	Archaeological Overview Assessment
ARD	acid rock drainage
ATOCB	Apprenticeship, Trade and Occupation Certification Board
ATV	all-terrain vehicle
AUC	Alberta Utilities Commission
BC ENV	British Columbia Ministry of Environment and Climate Change Strategy
BC MFLNRO	British Columbia Ministry of Forests, Lands and Natural Resource Operations



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Abbreviations

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BC OGC	British Columbia Oil and Gas Commission
BMP	best management practice
CAC.....	criteria air contaminants
CaCO ₃	calcium carbonate
CCASAR.....	Canyon Creek All Season Access Road
CCME.....	Canadian Council of Ministers of the Environment
CEPA	<i>Canadian Environmental Protection Act</i>
CH ₄	methane
CHBDC.....	Canadian Highway Bridge Design Code
CJYS.....	Chief Julian Yendo School
CLC.....	Community Learning Centres
cm.....	centimetre
CMA	Conference of Management Authorities
CMV	Central Mackenzie Valley
CNFDB.....	Canadian National Fire Database
CO	carbon monoxide
CO ₂	carbon dioxide
COSEWIC.....	Committee on the Status of Endangered Wildlife in Canada
COVID-19	SARS-CoV-2 virus
CR	conformity requirement
CRA	Climate Resilience Assessment
CSP	corrugated steel pipe
CSQG-FAL.....	Canadian Sediment Quality Guidelines for the Protection of Aquatic Life
CSR.....	Contaminated Sites Regulation
CTEP.....	Contractor Training and Employment Plan
CWQG-FAL.....	Canadian Water Quality Guideline for Protection of Freshwater Aquatic Life



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Abbreviations

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CWS	Canadian Wildlife Service
CZ	Conservation Zone
DAR	Developer's Assessment Report
dB	decibel
dba	A-weighted decibels
dbh	diameter at breast height
dBZ	Z-weighted or unweighted decibels
DEC	Dehcho Divisional Education Council
DEFRA	Department for Environmental Food and Rural Affairs
DEM	Digital Elevation Model
DFO	Fisheries and Oceans Canada
DLUP	Draft Dehcho Land Use Plan
DLUPC	Dehcho Land Use Planning Committee
DOJ	Department of Justice
DOT	Department of Transportation
EA	environmental assessment
EC	Environment Canada
ECC	Department of Environment and Climate Change
ECCC	Environment and Climate Change Canada
ECE	Department of Education, Culture, and Employment
EDI	Environmental Dynamics Inc.
EET	Emission estimation technique
EIA	Department of Executive and Indigenous Affairs
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
Enbridge	Enbridge Pipelines (NW) Inc.



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ENR.....	Environment and Natural Resources
EOSD NWT.....	Earth Observation of Sustainable Development of Forests Northwest Territories
ERP	Emergency Response Plan
ESCP	Erosion and Sedimentation Control Plan
ExMP	Explosives Management Plan
FEQG	Federal Environmental Quality Guideline
FFHPP	Fish and Fish Habitat Protection Plan
FHWA.....	Federal Highway Administration
FIN.....	Department of Finance
FTA	Federal Transit Administration
FTE.....	full time equivalent
GBRB.....	Great Bear River Bridge
GDP	gross domestic product
GHG.....	greenhouse gases
GHGRP	Greenhouse Gas Reporting Program
GIS.....	geographic information system
GNWT	The Government of the Northwest Territories
GOC	Government of Canada
GovBC	Government of British Columbia
GPS.....	global positioning system
ha.....	hectare
HADD	harmful alteration, disruption, or destruction
HC DWQG.....	Health Canada's Drinking Water Quality Guidelines
HC RWQG.....	Health Canada's Recreational Water Quality Guidelines
Hwy 1.....	Mackenzie Highway (Highway No. 1)
HFC	hydrofluorocarbon



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HSPP	Heritage and Sites Protection Plan
HSS	Department of Health and Social Services
HEO	heavy equipment operators
Hz	Hertz
IBA	Important Bird Area
IMA	Interim Measures Agreement
INAC	Indigenous and Northern Affairs Canada
INF	Department of Infrastructure
IOL	Imperial Oil Resources Ventures Limited
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
ITI	Industry, Tourism and Investment
IWA	Important Wildlife Area
JRP	Joint Review Panel
JUS	Department of Justice
kg	kilogram
KHLP	Keyask Hydropower Limited Partnership
KLOI	key line of inquiry
km	kilometre
KM	kilometre marker
km/h	kilometres per hour
km ²	square kilometre
kPa	kilopascal
kW	kilowatt
L	litres
LAA	Local Assessment Area



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L _d	daytime sound level
L _{dn}	day-night sound level
L _{eq}	equivalent sound level
L _{eq-24hr}	24-hour equivalent sound level
LiDAR.....	light detection and ranging
L _n	nighttime sound level
LUP.....	land use permit
m asl.....	metres above sea level
m.....	metre
m/ha.....	metres per hectare
m/s.....	metres per second
m ²	square metre
m ³	cubic metre
m ³ /ha.....	cubic metres per hectare
m ³ /s.....	cubic metres per second
MACA.....	Department of Municipal and Community Affairs
MAD.....	mean annual discharge
MAR.....	mean annual runoff
MBCA.....	<i>Migratory Birds Convention Act</i>
MEND.....	Mine Environmental Neutral Drainage
mg/kg.....	milligrams per kilogram
mg/L.....	milligrams per litre
MGAR.....	Mount Gaudet Access Road
ML.....	metal leaching
mm.....	millimetre
mm/a.....	millimetres per year



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mm/s	millimetres per second
MMIWG	Missing and Murdered Indigenous Women and Girls
MNL	Mitigation Noise Level
MOU	Memorandum of Understanding
MRRB	Mackenzie River Basin Board
MSE	Mechanically Stabilized Earth
MTS	Marine Transportation Services
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVFL	Mackenzie Valley Fibre Link
MVH	Mackenzie Valley Highway
MVHCWG	Mackenzie Valley Highway Corridor Working Group
MVLUR	Mackenzie Valley Land Use Regulations
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	<i>Mackenzie Valley Resource Management Act</i>
MVWR	Mackenzie Valley Winter Road
MW	megawatt
N ₂ O	nitrous oxide
NAPS	National Air Pollution Surveillance
NF ₃	nitrogen trifluoride
NIR	National Inventory Report
NLGP	Northern Lights General Partnership
NO ₂	nitrogen dioxide
NO _x	nitrogen oxide
NPI	National Pollutant Inventory
NPR	neutralization potential ratio
NPRI	National Pollutant Release Inventory



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NRC.....	National Research Council of Canada
NRCan.....	Natural Resources Canada
NTBT.....	Northwest Territories Biodiversity Team
NTHSSA.....	Northwest Territories Health and Social Services Authority
NTS.....	National Topographic System
NTU.....	nephelometric turbidity units
NWT.....	Northwest Territories
NWRRC.....	Norman Wells Renewable Resources Council
NWT CISPP.....	The NWT Council on Invasive Species, Pests, and Pathogens
NT.....	Northwest Territories
NWTHC.....	Northwest Territories Housing Corporation
OHWM.....	ordinary high water mark
PAG.....	potentially acid generating
PCA.....	Parks Canada Agency
PCAR.....	Prohibition Creek Access Road
PCI.....	Proposed Conservation Initiative
PDA.....	Project Development Area
PDR.....	Project Description Report
PFC.....	perfluorocarbon
PIL.....	Project Inclusion List
PKFN.....	Pehdzéh Kì First Nation
PM.....	particulate matter
PM ₁₀	coarse particulate matter
PM _{2.5}	fine particulate matter
PPP.....	Permafrost Protection Plan
PR#.....	MVEIRB Public Registry document number for EA1213-02



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PWNHC	Prince of Wales Northern Heritage Centre
PY	person years
QDP	Quarry Development Plan
RAA	Regional Assessment Area
RAU	Rural Arterial Undivided
RCMP	Royal Canadian Mounted Police
RCP	Representative concentration pathway
ROW	right-of-way
RRC	Renewable Resource Council
RSA	Regional Study Area
RSF	Resource Selection Function
RSP	Road Safety Plan
RWC	Regional Wellness Council
SAR	species at risk
SARA	<i>Species at Risk Act</i>
SARC	Species at Risk Committee
SCP	Spill Contingency Plan
SD	standard deviation
SDMCLCA	Sahtu Dene and Métis Comprehensive Land Claim Agreement
SDOH	social determinants of health
SEIA	socio-economic impact assessment
SF ₆	sulphur hexafluoride
SHPSJWG	Sahtú Heritage Places and Sites Joint Working Group
SLUP	Sahtu Land Use Plan
SLUPB	Sahtú Land Use Planning Board
SLWB	Sahtu Land and Water Board



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SMZ	Special Management Zone
SO ₂	sulphur dioxide
SOCC	species of conservation concern
SON	subject of note
SPCSP	structural plate corrugated steel pipe
SRRB	Sahtú Renewable Resources Board
SSA	Sahtu Settlement Area
SSI	Sahtu Secretariat Incorporated
SSP	Safety and Security Plan
STI	sexually transmitted infection
t/m ³	tonnes per cubic metre
t/year	tonnes per year
TAC	Transportation Association of Canada
tCO ₂ e	tonnes of CO ₂ equivalent
TDR	Technical Data Report
TDS	total dissolved solids
the Project	Mackenzie Valley Highway Project
TK	Traditional Knowledge
TLRU	traditional land and resource use
TMP	Traffic Management Plan
TOC	table of contents
ToR	Terms of Reference
TPM	total particulate matter
TRRC	Tulita Renewable Resources Council
TSP	total suspended particulate
TSS	total suspended solids



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US EPA.....	United States Environmental Protection Agency
VC	valued component
VOC	Volatile Organic Compound
WBAMP	Well-Being Adaptive Management Plan
WGGSNS.....	Working Group on General Status of NWT Species
WL.....	water licence
WLWB.....	Wek'èezhì Land and Water Board
WMMP	Wildlife Management and Monitoring Plan
WMP	Waste Management Plan
WRI	World Resource Institute
WSC	Water Survey of Canada
ZOI.....	Zone of Influence



Glossary

24-hour equivalent sound level ($L_{Aeq-24hr}$ or dBA $L_{eq-24hr}$)	An energy-average sound level taken over a 24-hour period. It represents the average sound pressure encountered for the period. L_{eq} is usually A-weighted. An L_{eq} value expressed in dBA is a good, single value descriptor of the annoyance of noise.
Acid rock drainage and metal leaching	<p>Acid rock drainage and metal leaching (ARD/ML) are naturally occurring processes that are caused when minerals containing metals and sulphur (called sulphides) come in contact with both air and water. When sulphides are exposed to water and the oxygen from air, they oxidize. This oxidizing of sulphides can also produce acid. If this acid is carried by streams or other natural watercourses it is called acid rock drainage (ARD).</p> <p>The acid in ARD can leach metals from surrounding rocks causing drainage that has high amounts of dissolved metals (such as iron, aluminum, copper, lead, silver, zinc). This is called metal leaching (ML). Other metals/metalloids can also be leached from non-acidic drainage (such as selenium, zinc, molybdenum, nickel, arsenic and antimony).</p>
Active layer	The layer of ground that is subject to annual thawing and freezing in areas underlain by permafrost
Affected parties	All entities who may be affected by the Project, including, but not limited to, community governments or designated authorities, land corporations, renewable resource boards and councils, co-management boards, regulatory authorities of the Project, Federal and GNWT departments with associated mandates, educational institutions, public services, health and cultural organizations, Indigenous Governments and Indigenous Organizations, landowners, private organizations (such as Enbridge), emergency services, local businesses, local residents, and the public.



Alien plant species	Plants introduced to the Northwest Territories from Eurasia or other parts of North America as a result of human activities (Oldham and Delisle-Oldham 2016). The ToR calls alien plant species, “non-native species” (MVEIRB 2015).
Alternative methods	In the context of the environmental assessment for the Mackenzie Valley Highway Project (Project), these are different approaches considered for the construction and operation, scheduling phases and technical design for the Project.
Alternative routes	In the context of the environmental assessment for the Project, these are different locations considered for the highway alignment.
Anthropogenic disturbance	Change to the landscape cause by human activity
A-weighting sound (dBA)	A weighting of the frequencies in a sound that approximates the response of the human ear to frequencies in moderately loud sounds (sound pressure levels in the range of 45-65 dBA)
Best management practice	Best management practices (BMPs) are guidelines that help development projects meet necessary legislation, regulations and policies. For example, legislation might dictate that projects cannot harm a stream, while best management practices provide practical methods to avoid harming a stream.
Biodiversity	The full variety of life in a given region, including ecosystems, species, and the genetic diversity of all living organisms, such as plants and animals
Borrow material	Material such as soil, aggregate or sand that is removed from one location and used as fill in another location
Brunisol	Soils that have B horizons (designated Bm horizons) that have undergone only minor alterations from the parent material



Carbon dioxide (CO ₂)	A naturally occurring gas, also a by-product of burning fossil fuels from fossil carbon deposits, such as oil, gas and coal, of burning biomass, of land use changes and of industrial processes (e.g., cement production)
Carbon monoxide (CO)	A colourless, odourless, tasteless, and poisonous gas. It is a product of incomplete combustion of hydrocarbon-based fuels and is emitted directly from automobile tailpipes. Other lesser but significant sources are the wood industry, residential wood heating and forest fires. Carbon monoxide can have a significant impact on human health. It enters the bloodstream through the lungs and affects the respiratory system.
Coarse fish	Fish species that are not used for recreational fishing such as suckers although occasionally used in subsistence fisheries
Coarse particulate matter (PM ₁₀)	Airborne particulate matter with a mass median diameter less than 10 µm
Compliance monitoring	Compliance monitoring includes observing, measuring and, if applicable, analyzing parameters to confirm that the GNWT's commitments and regulatory requirements are being met.
Criteria air contaminants (CAC)	Contaminants that cause air issues such as smog and acid rain, and health hazards. They are produced in varying quantities by a number of sources, including the burning of fossil fuels, mining, transportation, electricity generation, and agriculture. They are divided into gaseous CACs and particulate CACs, all of which are quantified in tonnes per year.
Cryosol	Soils that have a perennially frozen subsoil within 1 m of the surface or within 2 m of the surface if the pedon is strongly cryoturbated



Day-night sound level (L_{dn})	L_{dn} - An equivalent continuous sound level taken over 24 hours, with the night-time (10 p.m. to 7 a.m.) sound contributions increased by 10 dB. A 10 dB penalty added to the nighttime period to account for the increased sensitivity to noise during the night
Daytime	A time period from 07:00 to 22:00
Daytime sound level (L_d)	L_d - Daytime period equivalent sound level (15 hours from 7:00 to 22:00)
Decibel (dB)	A logarithmic unit of measurement that expresses the magnitude of sound pressure level relative to reference level (20 micro-Pascals). It is dimensionless unit since it expresses the ratio of two quantities with the same unit.
Disturbed habitat	In the context of boreal caribou, habitat showing: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer)
Drainage	Ephemeral feature that does not have a defined bed and banks
Dust	Dust is composed of solid particles that are present in the atmosphere and includes the larger particulate matter (total particulate matter) and smaller particle matter such as PM_{10} and $PM_{2.5}$. While it is limited in determining the impacts on human and environment health, dust is nevertheless useful to assess from an aesthetic or nuisance perspective. Note that since dust emissions are hard to quantify, they are assessed qualitatively.
Echelon effect	The process of combination of multiple echoes and forming of a new sound. A set of railings or rectangular surfaces is said to produce echelon effect. This echelon effect affects the original quality of sound.



Ecological effectiveness	Indirect habitat loss due to displacement from preferred habitats near human activity or infrastructure
Edge effect	Changes that occur at the boundary between distinct habitats occurring as a result of the interaction between two adjacent ecosystems when the two are separated by an abrupt transition (edge). Abiotic edge effects include changes in the environmental conditions (e.g., temperature) and biological edge effects include changes in species abundance and distribution near the edge (direct) or changes in species interactions (i.e. indirect).
Effects monitoring	Effects monitoring includes recording observations and taking measurements that can be used to evaluate how environmental conditions may be changing due to the Project.
Effect on the environment	In the context of the environmental assessment for the Project, a change to the condition of one or more aspects of the human or biophysical environment caused by a project activity
Erosion and sedimentation	<p>Erosion is the transport by wind, water, and ice of soil, sediment and rock fragments produced by the weathering or human interference of geological features. Erosion can be caused by human activities such as the removal of vegetation, the removal of topsoil, and instream works.</p> <p>Sedimentation occurs when eroded material that is being transported by water, is deposited into a waterbody.</p>
Feeding habitat	Habitat used by fish to feed
Fine particulate matter (PM _{2.5})	Airborne particulate matter with a mass median diameter less than 2.5 µm. It is known to have harmful effects on human health and the environment and contribute to visibility impairment and regional haze.
Forage fish	Minnow-like species which are important food items for larger fish



Fragmentation	The process during which a large expanse of habitat is transformed into a number of smaller patches of smaller areas isolated from each other by a matrix of habitats unlike the original
Fugitive dust	Atmospheric dust arises from the mechanical disturbance of granular material exposed to the air. Dust generated from these open sources is termed "fugitive" because it is not discharged to the atmosphere in a confined flow stream. Common sources of fugitive dust include unpaved roads, agricultural tilling operations, aggregate storage piles, and heavy construction operations.
Gene flow	The movement of alleles between populations
Geomorphological process	The physical and chemical interaction between the Earth's surface and the natural forces acting upon it to produce landforms.
Gullying	Modification of unconsolidated and consolidated surfaces by various processes such as running water, mass movement and snow avalanching, resulting in the formation of parallel and sub-parallel long narrow ravines
High Annoyance (HA)	A high degree of noise annoyance which produces a state, or adverse reaction, that may be referred to as being annoyed, disturbed, bothered, (or dissatisfied)
Icing	Ice that forms in layers by water freezing on top of the surface; also called aufeis
Indigenous Governments	Governments that have negotiated, or are in the process of negotiating, Lands and Resources and/or Self-Government Agreements (Land Claims) with the GNWT and the Government of Canada
Indigenous Organizations	Organizations that do not meet the definition of an Indigenous Government that have been elected as the sole representative of the collective Aboriginal and/or Treaty rights of its Indigenous membership



Instantaneous pressure	The pressure caused by a shock wave over and above normal atmospheric pressure as a result of blasting activities
Instream works	Project-related activities that are within or adjacent to a watercourse (e.g., the installation of culverts)
Invasive alien plant species	Plants introduced to the Northwest Territories from Eurasia or other parts of North America as a result of human activities and with potential to cause significant ecological harm to native ecosystems, economy, or society (Carriere 2008 and GNWT 2015). Alien invasive plant species have the potential to be invasive due to high rates of dispersal and establishment (Snyder and Anions 2008). The ToR calls invasive alien plant species, “invasive species” (MVEIRB 2015).
Key line of inquiry (KLOI)	Topics identified by the MVEIRB in the ToR (MVEIRB 2015) to receive the most attention in the assessment. These require increased attention because they are important to communities along the proposed highway route and are of particular interest to the MVEIRB.
Large-bodied fish	Fish that, as adults, are large enough to be desirable for harvesting in recreational or subsistence fisheries (e.g., whitefish) with the exception of suckers which are referred to as coarse fish
Life history functions	Life history functions include spawning, rearing, migration, feeding, and overwintering of fish.
Local Assessment Area (LAA)	The area within which measurable Project-related effects (direct or indirect) are expected to occur
Low frequency noise (LFN)	Noise with frequency content in the range of 20-200 Hz. Where it produces a 16, 31.5 or 63 Hz octave band sound-pressure level of more than 65, 65 or 70 dBZ, respectively, low frequency noise can be associated with the introduction of noticeable vibrations and rattles in some structures (e.g., as from a nearby idling locomotive).



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Maximum sound level (L_{max})	The maximum value of the sound pressure level during a noise event, measured with a sound level meter using a Fast Time Weighting. This level can be applied to pass-by noise from transportation noise sources and impulsive noise events.
May Be At Risk	Species that may be at risk of extinction or extirpation. NatureServe S-rank equaling S1 to S2 (Working Group on General Status of NWT Species 2016)
Methane (CH_4)	Methane is the major component of natural gas and associated with all hydrocarbon fuels, animal husbandry and agriculture.
Migration habitat	Features used by fish to migrate through a watercourse or waterbody to access different habitats to carry out additional life stages
Mitigation measure	Mitigation measures are means to prevent, reduce or control adverse environmental effects of a project, and include restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means.
Muskeg	A peat forming ecosystem found in Boreal and Arctic areas. Muskeg consists of non-living organic material in various states of decomposition and the water tables tends to be near the surface.
Nighttime	A time period from 22:00 to 07:00
Nighttime sound level (L_n)	L_n - Nighttime period equivalent sound level (9 hours from 22:00 to 07:00)



Nitrogen dioxide (NO ₂)	NO ₂ gas is formed primarily from the liberation of nitrogen contained in fuel and in combustion air during combustion processes. It dissolves in water vapour in the air to form acids and interacts with other gases and particles in the air to form particles known as nitrates and other products that may be harmful to people and their environment. NO ₂ , on its own or in its transformed state, can cause adverse effects on respiratory systems of humans and animals, and damage to vegetation.
Nitrogen loading	Nitrogen loading is the quantity of nitrogen entering the environment (e.g., an aquatic ecosystem) over a given period.
Nitrous oxide (N ₂ O)	The main anthropogenic source of nitrous oxide is agriculture (soil and animal manure management), but important contributions also come from sewage treatment, combustion of fossil fuel, and chemical industrial processes. Nitrous oxide is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.
Noise	Unwanted sound
Ordinary high-water mark	The usual or average water level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land
Overwintering habitat	Habitat used by fish during the winter, typically when watercourses and waterbodies are ice-covered
Particulate matter (PM)	Microscopic solid and liquid particles, of various origins, that remain suspended in air for any length of time
Peak particle velocity	Measurement of ground vibration within the ground resulting from blasting operations
Permafrost	Ground (soil or rock and included ice and organic material) that remains at or below 0°C for at least two consecutive years



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Permafrost degradation	A naturally or artificially caused decrease in the thickness and/or areal extent of permafrost
Powder factor	The quantity of explosives required to fragment 1 m ³ or 1 tonne of rock
Productivity	Productivity is the ability for a fish to complete its life cycle (i.e., reproduction, growth, survival)
Project Development Area (PDA)	The area of direct Project disturbance within which works, and activities will occur (also commonly known as the Project footprint)
Qualified Person	An individual who is qualified to perform a specific function because of their knowledge, training and/or experience
Rearing habitat	Habitat used by larval and juvenile fish for feeding and shelter
Receptor location	Location where human noise-sensitive receptors are present, based on the Health Canada Noise Guidance 2017 recommendations. In this assessment, it includes permanent and seasonal residences.
Reclamation	The process, or action taken to return a disturbed site to a condition that supports other uses in accordance with applicable guidelines or closure objectives
Regional Assessment Area (RAA)	The area that provides context for determining the significance of Project effects and potential cumulative effects
Residual effect	An effect remaining after the application of mitigation measure(s)
Riparian area	Vegetated areas adjacent to a waterbody that directly contribute to fish habitat by providing shade, cover, and food production



Sahtu Settlement Area	The geographic area within the Northwest Territories as defined in Appendix A of the Sahtu Dene and Métis Comprehensive Land Claim Agreement (1993); also referred to in the Developer's Assessment Report as the Sahtu Region
Sahtu Settlement Lands	Lands within and outside of the Sahtu Settlement Area for which title is held by one or more Sahtu Organizations in accordance with the Sahtu Dene and Métis Comprehensive Land Claim Agreement (1993)
Sedimentation	The action or process of forming or depositing sediment
Sensitive	Species that are not at high risk of extinction or extirpation but may require some special attention or protection to prevent them from becoming at risk. NatureServe S-rank equaling S3. May include species assessed as special concern by COSEWIC or SARA (Working Group on General Status of NWT Species 2016)
Sensory disturbance	An activity that can be sensed by a wildlife species and elicit a behavioral change. For example, habitat adjacent to a project footprint, while remaining structurally unchanged, may become less effective for wildlife species due to sensory disturbance (e.g., noise, light, dust, vibrations, human presence) associated with project activities (GNWT, 2022 – <i>Draft Guidelines for Exploration and Development Projects in Boreal Caribou Habitat in the Northwest Territories</i>).
Soil compaction	Soil compaction occurs when soil particles are pressed together, reducing pore space between them.
Soil contamination	Soils that contain substances (often human made) that exceed naturally occurring levels and can cause detrimental effects on environmental and human health. Examples of soil contamination are those that contain petroleum hydrocarbons, lead, solvents, pesticides and polynuclear aromatic hydrocarbons.



Soil erosion	Soil erosion is the process of movement and transport of soil by water or wind. It involves three distinct actions – soil detachment, movement and deposition. Accelerated erosion can be caused by human activity and can have adverse effects.
Soil rutting	The action of compressing soil structure by vehicles or equipment to form trenches or furrows and thus causing a reduction in soil porosity.
Subject of note (SON)	Valued components of the environment other than those considered in the key lines of inquiry. These are of lower priority in the assessment.
Sulphur dioxide (SO ₂)	SO ₂ gas is formed from the sulphur contained in raw materials such as coal, oil and metal-containing ores during combustion and refining processes. It dissolves in water vapour in the air to form acids and interacts with other gases and particles in the air to form particles known as sulphates and other products that can be harmful to people and their environment. SO ₂ , on its own or in its transformed state, can cause adverse effects on respiratory systems of humans and animals, and damage to vegetation.
Surficial material	The unconsolidated geologic materials lying on top of bedrock. In Canada most surficial material were created, transported and deposited by glaciers that used to cover a large portion of North America.
Talik	An area of unfrozen ground that is found in a permafrost (frozen ground) area, and is related to the presence of water
the Project	Mackenzie Valley Highway Project
Thermal erosion	Erosion is the result of thawing and weakening of permafrost, particularly through the melting of ground ice.
Thermokarst	The process by which characteristic landforms result from the thawing of ice-rich permafrost



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Total dissolved solids	Total dissolved solids (TDS) is a measure of the dissolved fraction of all inorganic and organic substances present in water that can pass through a filter (typically with a 2 µm rating).
Total particulate matter (TPM)	Any particulate matter with a diameter less than 100 µm. Total Particulate Matter is also referred to as Total Suspended Particulate (TSP)
Total suspended solids	Total suspended solids (TSS) are defined as solids in water that can be trapped by a filter. To measure TSS, the water sample is filtered through a pre-weighed filter. The residue retained on the filter is dried in an oven at 103–105°C until the weight of the filter no longer changes. The increase in weight of the filter represents the TSS.
Turbidity	A measure of the relative clarity of water and often used as a surrogate for the amount of suspended sediment in water
Undisturbed habitat	In the context of boreal caribou, habitat not showing any: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). Disturbance within the 500 m buffer would result in a reduction of the undisturbed habitat.



Terms of Reference Concordance Table

Table 1 provides a cross-reference to where the requirement of the Terms of Reference for the Developer’s Assessment Report (DAR) for the Mackenzie Valley Highway Project (MVEIRB, 2015 [PR#66]) is addressed in the DAR, including appendices thereto.

Table 1 Terms of Reference Concordance Table

ToR Section	ToR Requirement	Where Addressed
2. Developer’s Assessment Report General Requirements		
2.1. Presentation of Material	The Review Board encourages the developer to present information in user-friendly ways.	✓
	The use of maps, aerial photos, development component/valued component interaction matrices, full explanation of figures and tables, and an overall commitment to plain language is encouraged.	✓
	When it is necessary to present complex or lengthy documentation to satisfy the requirements of the ToR, the developer should make every effort to simplify its response in the main body of the text and place supporting materials in appendices.	✓
	Produce all electronic documents in Adobe portable document format in files smaller than 40 MB.	✓
	The DAR will be submitted as a stand-alone document.	✓
	Relevant information and analyses from previous project descriptions should be incorporated into the DAR and combined with the supplementary material and analyses required by this ToR.	✓
	Make all referenced information accessible.	✓
2.2. Incorporation of Traditional Knowledge	Make all reasonable efforts to assist in the collection and consideration of traditional knowledge relevant to the highway for the Review Board’s consideration.	Chapter 3
	Make all reasonable efforts to incorporate traditional knowledge from Aboriginal culture holders as a tool to collect information on and evaluate the specific impacts required in this ToR.	Chapter 3 Throughout



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Terms of Reference Concordance Table

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ToR Section	ToR Requirement	Where Addressed
	Should refer to the Review Board's <i>Guidelines for Incorporating Traditional Knowledge into the Environmental Impact Assessment Process</i> .	Chapter 3
2.3. Public Engagement	Engagement with communities, Aboriginal groups, governments, or organizations with interests related to areas that might be affected by the highway should be considered in this section.	Section 2.1
	Aboriginal groups, government agencies and other interested parties may have information useful to the conduct of this impact assessment and all reasonable efforts should be made to engage with them.	Section 2.1
	The Review Board encourages the developer to meet with interested groups outside the EA process, and to place any information from those discussions they consider may be relevant to the Review Board's decision on the public record.	Noted
	An engagement log describing dates, individuals and organizations engaged with, the mode of communication, discussion topics and positions taken by participants including the following items is required:	Chapter 2, Appendix 2B
	<ul style="list-style-type: none"> – All commitments and agreements made in response to issues raised by the public during these discussions, and how these commitments altered the planning of the proposed highway; 	Section 2.1.6, 5.2.3, 9.2.2, 9.5.1, 9.6.1, 9.7.1, 9.8.1, 9.9.1, 10.1.2, 11.1.2, 12.1.2, 13.1.2, 14.1.2, 15.1.2, 16.1.2, 17.1.2, 18.1.2, 19.1.2, 20.1.2, 22.1.2, 24.1.2, 25.4, 26.1.2
	<ul style="list-style-type: none"> – All issues that remain unresolved, documenting any further efforts envisioned by the parties to resolve them; 	Section 2.1, 2.3
	<ul style="list-style-type: none"> – Description of all methods used to identify, inform and solicit input from potentially interested parties, and any plans the developer has to keep engagement moving forward; 	Section 2.1, 9.2.2, Appendix 2A
	<ul style="list-style-type: none"> – How the developer has engaged, or intends to engage, traditional knowledge holders in order to collect relevant information for establishing baseline conditions and the effects assessment of potential impacts, as well as a summary table indicating where and how in which of the subsequent sections traditional knowledge was incorporated (see Review Board's <i>Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment</i>). 	Section 3.1, 3.3, 11.2, Tables 11.18 to 11.21; Tables 11.23 to 11.25



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ToR Section	ToR Requirement	Where Addressed
2.4. Summary Materials	Plain language summary in English, South Slavey and North Slavey.	Front Matter
	A concordance table that cross-references the items in the ToR with relevant sections of the DAR.	Front Matter
	A commitments table listing all mitigation measures the developer will undertake, including but not limited to those described in the project application. These should be organized by subject (e.g., water quality, wildlife) for easy reference.	Section 27.2, 27.3, 27.4, 27.5
2.5. Land Use Plans	Clearly demonstrate throughout each section of the DAR how the project conforms to the approved Land Use Plan (Sahtu Settlement Area) and/or if an exemption from the Land Use Plan would be required for any specific activities.	See Section 6.3 for summary of conformity to land use plan and cross references to other sections of the DAR
3. Scope Considerations		
3.1. Scope of Development	<p>Within this document the scope of development includes the construction, operation and reclamation of an all-weather highway from the community of Wrigley to Norman Wells, as well as the restoration of any segments of the existing seasonal public highway deemed to be unsuitable for use as a base of an all-weather road. The development includes the following components:</p> <ul style="list-style-type: none"> - Clearing the right of way with intermittent new sections between Wrigley and Norman Wells; - Construction of a 321 km all-season gravel highway from Wrigley to Norman Wells, much of which follows an existing seasonal public highway; - Construction of watercourse crossing structures; - Construction and operation of borrow sources and access to the borrow sources; - Construction and operation of highway maintenance areas; - Construction and operation of temporary construction support infrastructure and workspaces including camps, laydown and staging areas, bulk fuel storage areas and airstrips; - Ongoing operations and maintenance activities; and, - Reclamation of facilities not required for ongoing highway operations. <p>The scope of the project does not include the ongoing operation and planned capital improvements to the existing winter road system between Wrigley and Norman.</p>	Section 1.4 Section 5.1



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ToR Section	ToR Requirement	Where Addressed
	Fully describe all required facilities and activities for the development.	Section 5.1 to 5.6
	Identify all permits, licenses or other regulatory approvals necessary for the different phases of the development.	Section 6.1
	Document all land tenure agreements required for the development.	Section 6.2
3.2.2. Issues Prioritization – Key Lines of Inquiry	Consider the following when preparing the specific material, the Review Board requests.	noted
	Encouraged to seek clarification from the Review Board in writing if specific requirements in the ToR are unclear.	noted
	If the developer finds that a question cannot be answered, the developer must provide a reasonable rationale explaining why the question could not be answered.	noted
3.2.3. Key Lines of Inquiry	Give special consideration to the following key lines of inquiry in the DAR. (These are designated as key lines of inquiry to ensure a comprehensive analysis of the issues most likely to cause significant environmental impacts or significant public concern):	Noted; assessment approach and methods is presented in Chapter 4
	– Local social and economic considerations;	Section 9.0; summary of KLOI is in Section 8.2
	– Caribou, moose and harvesting.	Section 10.0, 11.0 summary of KLOI is in Section 8.3
	Data collection and analyses for the key line of inquiry in the DAR should be at a level of detail appropriate for other interested parties to understand the technical material prior to any technical sessions on these topics.	Chapter 8
	The key lines of inquiry will be presented in comprehensive stand-alone sections in the DAR.	Volume 2; Section 8.0 for summary of KLOIs; Section 9.0, 10.0, 11.0
3.2.4. Subjects of Note	Consider all other valued components described in Section 7 as subjects of note.	Volume 3
	Every issue identified in this ToR requires a sufficient analysis to demonstrate whether the development is likely to cause significant adverse impacts.	Chapter 4 (assessment approach and methods)
	These subjects of note need to be considered by the developer but are of lower priority than the key lines of inquiry.	Section 4.3



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ToR Section	ToR Requirement	Where Addressed
3.3. Geographic Scope	For all biophysical or socio-economic valued components (e.g. community wellness, wildlife), the developer will specify the study area boundaries used for the assessment for each component.	Section 4.3.3 Section 9.2.5, 10.1.4, 11.1.4, 12.1.4, 13.1.4, 14.1.4, 15.1.4, 16.1.4, 17.1.4, 18.1.4, 19.1.4, 20.1.4, 22.1.4
	The geographic scope for each valued component must be appropriate for the characteristics of that component.	Section 4.3.3 Section 9.2.5, 10.1.4, 11.1.4, 12.1.4, 13.1.4, 14.1.4, 15.1.4, 16.1.4, 17.1.4, 18.1.4, 19.1.4, 20.1.4, 22.1.4
	Provide justification and rationale for all study area boundaries chosen.	Section 9.2.5, 10.1.4, 11.1.4, 12.1.4, 13.1.4, 14.1.4, 15.1.4, 16.1.4, 17.1.4, 18.1.4, 19.1.4, 20.1.4, 22.1.4
3.4. Temporal Scope	Use temporal boundaries for this EA according to potential long-term impacts on valued components, assuming that the highway is in operation for an indeterminate period of time.	Section 4.3.3
	For project specific (that is, non-cumulative) impacts, the temporal scope will include all phases of the highway lifespan including construction, operation, and in some instances reclamation, and extends until no potentially significant adverse impacts are predicted.	Section 4.3.3
	For cumulative impacts, the temporal scope includes the period of the effects of past, present and reasonably foreseeable future projects that are predicted to combine with the impacts of the highway.	Section 4.3.3
	Place special focus on the consideration of times during the development when activities are particularly intense (such as during initial construction) or when valued components are particularly sensitive to potential impacts (such as key times for wildlife, fish spawning or wildlife harvesting periods).	Section 4.5.4
	Give special attention to appropriate temporal boundaries for considering any impacts that may require long-term monitoring and management such as impacts on communities along the highway route.	Section 4.9
	Define and provide rationales for the specific temporal boundaries it used to examine the potential impacts on each of the valued components considered in its impact assessment.	Section 9.2.5, 10.1.4, 11.1.4, 12.1.4, 13.1.4, 14.1.4, 15.1.4, 16.1.4, 17.1.4, 18.1.4, 19.1.4, 20.1.4, 22.1.4



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ToR Section	ToR Requirement	Where Addressed
	In light of uncertainties with the timing of construction that could see a long delay from the completion of the EA till highway construction, provide a management response framework that will address how the accuracy of predictions and applicability of mitigations will be checked before the developer applies for permits.	Section 23.2 Section 9.14, 10.7, 11.7, 12.7, 13.7, 14.7, 15.7, 16.7, 17.7, 18.7, 19.7, 20.7, 24.4, 26.2.3
	Explain how this management response framework will be incorporated into the permit applications.	Section 23.2
3.5. Consideration of Alternatives	Identify and describe alternative methods for highway construction and operation, scheduling phases, and technical design to carry out the project that are, from the perspective of the developer, technically and economically feasible.	Section 7.3.1
	Describe the environmental effects of each alternative method. In describing the preferred methods.	Section 7.3.2
	Should identify the relative consideration of environmental effects, and technical and economic feasibility.	Section 7.3.2
	The criteria and/or constraints used to identify any alternative methods as acceptable or unacceptable, and how these criteria and/or constraints were applied, must be described.	Section 7.3.2
	Describe the alternative methods of carrying out the components of the development, including:	Section 7.3
	<ul style="list-style-type: none"> – A description of the alternative methods considered, how or why they are not technically and/or economically feasible, and the rationale for rejecting any alternatives that are excluded from further assessment; 	Section 7.3.1
	<ul style="list-style-type: none"> – The criteria and rationale for selecting the preferred alternative methods. 	Section 7.3.2
	Identify and describe the alternative routes considered for the development including:	Section 7.2
	<ul style="list-style-type: none"> – A description of each alternative considered, how or why they are not environmentally, technically and/or economically feasible, and the rationale for rejecting any alternatives that are excluded from further assessment; 	Section 7.2.1, 7.2.2



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - The criteria and rationale for selecting the preferred alternative route, and the environmental, social and technical (including safety) constraints associated with them. 	Section 7.2.3
	Provide some level of environmental assessment of the alternative routes to substantiate their inclusion as viable alternatives, even if they are not being considered as the developer's preferred route.	Section 7.2.3
	Indicate how community engagement and consultation and traditional knowledge have influenced the determinations on route options.	Section 5.2.3 Section 7.1.2
4. Assessment Methodology		
4.1. Impact Assessment Steps	Address the following impact assessment steps.	
	In assessing impacts on the biophysical and human environment, for each valued component in Section 6, the DAR will identify the highway's potential impacts (direct and indirect) on valued components relative to baseline conditions and trends.	Section 4.5
	Describe the methods used to identify these impacts in sufficient detail to allow reviewers to fully understand how these conclusions were reached.	Section 4.5.1, 4.5.2
	Describe proposed mitigations to reduce or avoid impacts, and predict residual impacts after mitigation.	Section 4.5.3
	The developer will provide its views on impact significance.	Section 4.7
	Describe how the predicted impacts are expected to arise from the proposed development. (This will include describing the mechanisms for cause and effect and providing supporting references (including where Traditional Knowledge was used)).	Section 4.5.2
	Where professional judgment has been used in determining impacts, this must be made clear.	Section 4.7, 4.8
	Provide a discussion on the uncertainty involved with each prediction.	Section 4.8
	For each predicted impact, the developer will describe:	Section 4.5.4
	<ul style="list-style-type: none"> - The nature or type of the impact; 	Section 4.5.4



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ToR Section	ToR Requirement	Where Addressed
	– The geographical range of the impact;	Section 4.5.4
	– The timing of the impact (including duration, frequency and extent);	Section 4.5.4
	– The magnitude of the impact (what degree of change is expected);	Section 4.5.4
	– The reversibility of the impact;	Section 4.5.4
	– The likelihood and certainty of the impact.	Section 4.5.4, 4.8
	The assessment process requires that predictions be made regarding the impacts of future construction and operations of a highway on dynamic valued ecosystem components.	Section 4.8
	Mitigations may be proposed based on these predictions.	Section 4.5.3 Section 4.6.3
	The Review Board requests that the developer describe how it will manage these problems associated with predicting impacts and proposing mitigations.	Section 4.8, 4.9
	The Review Board sent a letter to the developer on Oct 29, 2013, regarding this issue. The developer provided a response on November 13, 2013, The Review Board now requires details regarding possible follow-up programs.	Section 4.9, 23.0
5. Description of the Existing Environment		
	The developer shall provide a description of existing conditions in sufficient detail to enable an understanding of how the valued components might be affected (positively or negatively) by the proposed development.	Appendix 9C, 10A, 11A, 12A, 13A, 14A, 15A, 15B, 15C, 15D, 16A, 17A, 18A, 18B, 19A, 20A, 20C, 22A, 24A
5.1. Biophysical Information Requirements	Provide a description of all existing regional data used in developing the environmental baseline.	Section 3.0 or 4.0 (Methods) of each Technical Data Report (TDR) for each of the VCs in Volume 2 and 3
	Where the developer generated its own data the methodology, accuracy and precision of measurements will be provided.	Section 3.0 (Methods) of each Technical Data Report (TDR) where data was collected
	The developer should also describe any analysis conducted to utilize data from outside the study region to characterize the baseline environmental conditions within the study region. This would include a description of any models etc. (including assumptions and accuracy) utilized to characterize baseline conditions where local measurements are not available.	Section 4.0 or 5.0 (Results) of each Technical Data Report (TDR) for each VC included as Appendices to Volume 2, 3



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ToR Section	ToR Requirement	Where Addressed
	The description of the baseline conditions should be sufficient to allow for a thorough assessment of the project effects.	Section 2.0 (Existing Conditions) of each TDR
5.1.1. Terrain, Geology, Soils and Permafrost	Describe the existing terrain, geology, soils and permafrost in the project study area(s), including a description, location, and geographic extent of the following features:	Appendix 14A
	<ul style="list-style-type: none"> - Topography and geology, including key terrain features such as rivers, lakes and wetlands and other important processes and features; 	Appendix 14A: Sections 4.1 to 4.6 Sections 5.1 and 5.2
	<ul style="list-style-type: none"> - Bedrock type and depth; 	Appendix 14A: Section 4.1 Appendix A, Figures A.1 to A.7 Section 5.1 Appendix B, Figures B.1 to B.86
	<ul style="list-style-type: none"> - Unconsolidated surficial materials and terrain types, including thickness of landforms; 	Appendix 14A: Sections 4.2 and 4.3 Appendix A, Figures A.8 to A.23
	<ul style="list-style-type: none"> - Soil types, including group, series and type, as applicable. 	Appendix 14A: Section 3.0 Appendix A, Figures A.24 and A.25
	Describe borrow materials including:	
	<ul style="list-style-type: none"> - Locations; 	Section 5.4.5; Appendix 14A: Section 6, Appendix A.8
	<ul style="list-style-type: none"> - Ice content; 	Appendix 14A: Section 6
	<ul style="list-style-type: none"> - Size of borrow areas; 	Appendix 14A: Section 6
	<ul style="list-style-type: none"> - Volumes to be removed; 	Section 5.4.5
	<ul style="list-style-type: none"> - Quality of materials at each location; 	Appendix 14A: Section 6
	<ul style="list-style-type: none"> - Existence and extent of ice rich permafrost areas that may be excavated; 	Appendix 14A: Section 6
	<ul style="list-style-type: none"> - Ownership 	Section 5.4.5
Provide a description of permafrost and ice-rich soils in the area of the highway, including:	Appendix 14A: Sections 4.0 and 5.0, Appendix A and B	
<ul style="list-style-type: none"> - Distribution (thickness and lateral extent) on land, water, shoreline and slope crossings, including a discussion of taliks; 	Appendix 14A: Sections 4.5.2 and 4.5.6 Taliks discussed in Hydrogeology-TDR (Appendix 15B, Section 4.2.3.3)	



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> – Permafrost processes, features and landforms and their stability, including slopes, shorelines and stream banks; 	Appendix 14A: Section 4.6
	<ul style="list-style-type: none"> – Ground ice conditions, temperature and ground thermal regime; 	Appendix 14A: Sections Section 4.2, 4.5.3; Appendix 15B, Section 4.2.3.3
	<ul style="list-style-type: none"> – Active layer thickness, seasonal frost, penetration, thaw sensitivity and frost susceptibility; 	Appendix 14A: Sections 4.5.5 and 4.5.7
	<ul style="list-style-type: none"> – How fires affect ground temperature regimes and permafrost; 	Appendix 14A: Section 4.6.3
	<ul style="list-style-type: none"> – Describe thaw slumps in the project area; 	Appendix 14A: Section 4.6.2 and 5.2.1 Appendix B
	<ul style="list-style-type: none"> – Demonstrate an understanding of regional climate warming and documented warming of ground temperatures in the region; 	Appendix 14A: Section 4.5.1 and 4.5.5
	<ul style="list-style-type: none"> – Describe how warming ground temperatures and deepening active layers will affect the highway and how mitigation measures will remain effective in various climate warming scenarios. 	Appendix 14A: Section 14.2.2.4 and Section 14.4 Table 14.5; Section 24.3 and Appendix 24A
5.1.2. Climate	Provide a description of the existing or baseline climate conditions and climatic variability and trends, including, but not necessarily limited to:	Appendix 12A, Appendix 24A
	<ul style="list-style-type: none"> – The location of recording stations and length of record for any meteorological data presented; 	Appendix 12A: Figure 2.2, Section 4.3 and 4.4, Tables 4.7 to 4.11, Table 4.8, Figures 4.6 to 4.12. Section 24.2
	<ul style="list-style-type: none"> – Prevailing climatic conditions, seasonal variations, predominant winds including direction and velocity, temperature and precipitation (snowfall, snow depth, rain, fog, wind); 	Appendix 12A: Figure 2.2, Section 4.3 and Section 4.4, Tables 4.7 to 4.11, Table 4.8, Figures 4.6 to 4.12. Section 24.2.2
	<ul style="list-style-type: none"> – Spatial and temporal boundaries for the description of climate; 	Appendix 12A: Figures 2.1 and 2.2, Section 2.1 Section 24.1.3, Section 24.2.5
	<ul style="list-style-type: none"> – Any current climate-related extreme events that may affect the highway, and frequency of occurrence. 	Appendix 12A: Section 4.3, 4.4; Section 24.4



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ToR Section	ToR Requirement	Where Addressed
	In support of the baseline description:	
	<ul style="list-style-type: none"> – Define the variability/trends within the “current” climate normal period and within the historical period of instrumental record; 	Appendix 12A: Section 4.3, Section 24.2.3, Section 24.2.4
	<ul style="list-style-type: none"> – Discuss the contribution of traditional knowledge to the understanding of climate conditions and variability; 	Section 24.1.2
	<ul style="list-style-type: none"> – Identify the location of recording stations and length of record for any meteorological data presented. 	Appendix 12A: Figure 2.2, Section 4.3 and Section 4.4, Tables 4.7 to 4.11, Table 4.8, Figures 4.6 to 4.12. Section 24.2.2
	The description of baseline conditions should be presented in a manner that reflects this variability and facilitates subsequent discussion of how changes in climate could change the highway, or particular highway components.	noted
5.1.3. Water Quality and Quantity	Provide a description and maps of the existing water resources within or near the boundaries of the study area(s) including:	Appendix 15A (Surface Water Quantity TDR), Appendix 15B (Hydrogeology TDR) and Appendix 16A (Water and Sediment Quality TDR) are referenced below
	<ul style="list-style-type: none"> – Waterbodies, watercourses and major drainage areas; 	Appendix 15A: Sections 3.2.1 and 3.2.2; Figure 3.1; Table 3.1
	<ul style="list-style-type: none"> – Watercourses that have year-round flow; 	Appendix 15A: Sections 4.1 Appendix 15B: Section 4.2.3.4
	<ul style="list-style-type: none"> – The extent of connectivity to adjacent watercourses including any potential seasonal variation; 	Section 19.7.2 for discussion of data gap
	<ul style="list-style-type: none"> – Seasonal and perennial springs including ephemeral streams located within or near the boundaries of the study area(s); 	Appendix 15B: Section 4.5 (springs) Appendix 15A: Sections 3.2.1, 4.1, and 5 (ephemeral streams)
	<ul style="list-style-type: none"> – Naturally occurring icings; 	Appendix 15B: Section 4.2.3.4.
	<ul style="list-style-type: none"> – Describe the recharge ability of lakes that will be used for winter road watering or ice mining. 	Appendix 15B: Section 4.2.3, and Appendix 15C: Section 6.3



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ToR Section	ToR Requirement	Where Addressed
	Provide a description of major drainages and watercourses, including the basis for their selection.	Appendix 15A: Sections 3.2.2 and 3.2.4; Appendix 15C: Section 5.1.2
	For each major drainage or major watercourse, as appropriate, provide a description of its hydrological characteristics, including:	
	– Flow regimes, variability and seasonal patterns;	Appendix 15A: Section 4.1; Appendix 15C: Section 5.1
	– Channel and bed morphology and stability;	Section 19.7.2
	– Bank stability and areas of erosion;	Section 19.7.2
	– Sediment load – suspended and bed load;	Section 19.7.2
	– Active and historical floodplains;	Section 19.7.2
	– Freeze/thaw timing;	Appendix 15A: Section 3.2.1; Appendix 15C: Section 5.1, 5.2
	– Taliks/permafrost distribution and stability beneath waterbodies;	Permafrost distribution Appendix 14A: Section 4.5.2, 4.5.6; Appendix 15B: Section 4.2.3.3
	– The role of wetlands (e.g., bogs, fens and peat plateaus).	Appendix 14A: Section 4.5.1
	In the vicinity of communities and along highway routes being considered, describe flood regimes, ice-jamming and scour.	Appendix 15A: Section 3.2.1
	In each major drainage, identify locations of existing and planned water use (domestic, municipal, camp, etc.) in relation to the proposed highway routes.	Section 5.4.11
	For each area of water use that may be affected by the highway, identify quantity of use, existing water quality and variations, existing sources of water quality impairment and their locations in relation to highway routes alternatives, and groundwater resources and hydrogeology where relevant to the highway.	Appendix 15A: Section 3.2.5; Appendix 16A: Section 3.2.3; Appendix 15B: Section 4.5, 4.6



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ToR Section	ToR Requirement	Where Addressed
5.1.4. Fish and Fish Habitat	Provide a description of the existing fish and fish habitat within the highway area, including:	Appendix 17A
	– A description of fish habitat present at each of the planned water crossings, including references (such as photographs and diagrams) at those locations;	Appendix 17A: Sections 4.3.1 and 4.3.2
	– Fish species including forage fish (non-harvested) and any other aquatic resources of value present;	Appendix 17A: Sections 4.3.1 and 4.3.2
	– Seasonal and life cycle movements and sensitive periods;	Section 17.2.2
	– Habitat requirements for each life stage;	Appendix 17A: Sections 4.3.1 and 4.3.2
	– Local and regional abundance, distribution and use of habitat types, including aquatic and riparian vegetation;	Appendix 17A: Sections 4.3.1 and 4.3.2
	– Known sensitive or important areas in terms of habitat type (e.g., spawning, overwintering, refugia, feeding), species and timing of use;	Appendix 17A: Sections 4.3.1 and 4.3.2
	– For species at risk or of concern , also describe specific location, population status, limits and size, sensitivity and limiting factors;	Section 17.2.2 Appendix 17A: Section 4.2.15 and 4.2.16
	– Baseline contaminant concentrations in harvested species, that may change as a result of the highway and as available;	Section 17.4.4.2
	– Any known issues with respect to health of harvested species (e.g. parasites, disease, condition);	Section 17.2.2
	– Species of particular importance to subsistence harvesters;	Section 17.2.2
	– Species subject to exclusive or preferential rights granted by land claims;	Section 17.2.2
	– Species of particular importance to the guiding or outfitting industries;	Section 17.2.2
	– Areas subject to exclusive harvesting rights granted to land claim beneficiaries;	Section 17.2.2
	– Harvest pressures (subsistence, sport fishing and commercial harvesting) by species, season and geographic area;	Section 17.2.2
	– Listing of existing non-native species.	Appendix 17A: Section 4.2



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ToR Section	ToR Requirement	Where Addressed
5.1.5. Wildlife and Wildlife Habitat	Provide a description of the existing wildlife and wildlife habitat within the study area(s), including:	Appendix 19A
	– Wildlife species present;	Appendix 19A: Sections 3.1.2 and 3.2.2
	– Distribution and abundance, seasonal movements, habitat requirements (e.g., breeding, calving, feeding) and sensitive time periods;	Appendix 19A: Sections 3.1.2 and 3.2.2
	– For species at risk or of concern, also describe specific location(s), population status and trends, limits and size, critical habitat, sensitivity and any other limiting factors;	Appendix 19A: Section 3.2.2.5
	– Species subject to exclusive or preferential rights granted by land claims;	Appendix 19A: Section 3.1.2
	– Species of particular importance to the guiding or outfitting industries;	Appendix 19A: Section 3.2.2
	– Habitat types including local and regional distribution and abundance;	Appendix 19A: Section 3.2.2
	– Species of importance to subsistence harvesters;	Appendix 19A: Section 3.1.2
	– Habitat or sites of special value or sensitivity, including species use and timing;	Appendix 19A: Sections 3.1.2 and 3.2.2
	– Areas subject to exclusive harvesting rights granted to land claim beneficiaries;	Appendix 19A: Section 3.1.2
	– Migratory patterns, routes and timing in relation to highway route alternatives, construction activities, and operation;	Appendix 19A: Section 3.2.2
	– Harvest pressures (subsistence, resident and non-resident harvesting and commercial harvesting) by species, season and geographic area;	Appendix 19A: Section 3.2.2
	– Listing and location(s) of existing non-native species;	Appendix 19A: Section 3.2.2
	– Current and historic levels of natural and human-caused fragmentation and connectivity;	Appendix 19A: Section 3.2.2
– Baseline contaminant concentrations in harvested species, that may change as a result of the highway;	Appendix 19A: Section 3.2.2	
– Any known issues with respect to the health of harvested species (e.g. parasites, diseases, condition).	Appendix 19A: Section 3.2.2	



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ToR Section	ToR Requirement	Where Addressed
5.1.6. Birds and Bird Habitat	Provide a description of the existing bird resources with the study area including:	Appendix 20A, Appendix 20C
	– Bird species present;	Appendix 20A: Section 3.1.2. and 3.2.2
	– Abundance and distribution, seasonal movements, habitat requirements (breeding, moulting, staging, feeding) and sensitive periods;	Appendix 20A: Sections 3.1.2 and 3.2.2
	– For species at risk or of concern, also describe specific location(s), population status and trends, limits and size, critical habitat, sensitivity and limiting factors status and trends;	Appendix 20A: Section 3.2.2.6
	– Species subject to exclusive or preferential rights granted by land claims;	Appendix 20A: Section 3.1.2
	– Habitat types including local and regional abundance and distribution;	Appendix 20A, Section 3.2.2.1
	– Baseline contaminant concentrations in harvested species, that may change as a result of the highway;	Appendix 20A: Section 3.2.2.1
	– Any known issues with respect to health of harvested species;	Appendix 20A: Section 3.2.2.1
	– Areas subject to exclusive harvesting rights granted to land claim beneficiaries;	Appendix 20A: Section 3.1.2
	– Species of particular importance to subsistence harvesters;	Appendix 20A: Section 3.1.2
	– Habitat or sites of special value or sensitivity, including species use and timing;	Appendix 20A: Section 3.2.2
	– Harvest pressures (subsistence and sport hunting) by species, season and geographic area; and,	Appendix 20A: Section 3.2.2.2 and 3.2.2.3
– Listing and location(s) of existing non-native species.	Appendix 20A: Section 3.2.2.1	
5.1.7. Vegetation	Provide a description of the existing vegetation within the study area(s), including:	Appendix 18A
	– Vegetation and vegetation assemblages;	Section 18.2.2; Appendix 18A: Section 3.1.2, 3.2.2
	– Any classification system followed, as appropriate;	Section 18.2.2; Appendix 18A: Section 3.2.1
– Identification of species or assemblages that are rare, valued, protected or designated (e.g., vulnerable, threatened, endangered);	Section 18.2.2; Appendix 18A: Section 3.2.2.1	



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - For any species at risk or of concern , also describe specific location, population status, limits and size, sensitivity and limiting factors; 	Section 18.2.2; Appendix 18A: Section 3.2.2.1
	<ul style="list-style-type: none"> - Historic and current human use of vegetation, including subsistence and commercial harvesting, (e.g., berry picking, forestry); 	Section 18.2.2; Appendix 18A: Section 3.2.2.1
	<ul style="list-style-type: none"> - Baseline contaminant concentrations in harvested species or vegetation (e.g. berries) that may change as a result of the highway and as available; 	Section 18.2.2; Appendix 18A: Section 3.2.2.1
	<ul style="list-style-type: none"> - Locations and quantities of merchantable timber; 	Section 18.2.2; Appendix 18A: Section 3.2.1.1, 3.2.2.2
	<ul style="list-style-type: none"> - Listing and location(s) of existing non-native species; 	Section 18.2.2; Appendix 18A: Section 3.2.22
	<ul style="list-style-type: none"> - Frequency of forest fires; 	Section 18.2.2; Appendix 18A: Section 3.2.1.2, 3.2.2.1
	<ul style="list-style-type: none"> - Post-fire vegetation succession, if applicable. 	Section 18.2.2; Appendix 18A: Section 3.2.21
5.2.1. Demographics	Provide a description of the social and demographic profile(s) and trends in the study area, including the following:	Appendix 9C
	<ul style="list-style-type: none"> - population and population trends by community and by region; 	Appendix 9C: Sections 5.5.1.1.1, 5.5.1.2.1, 5.5.1.3.1, 5.5.2.1.1, 5.5.2.2.1, 5.5.2.3.1, 5.5.2.4.1
	<ul style="list-style-type: none"> - number of persons per household and number of households; 	Appendix 9C: Sections 5.3.1.1.1, 5.3.1.2.1, 5.3.1.3.1
	<ul style="list-style-type: none"> - in/out migration by community and region, and factors that could contribute to migration patterns. 	Appendix 9C: Sections 5.5.1.1.1, 5.5.1.2.1, 5.5.1.3.1
5.2.2. Regional and Local Economies	Provide a description of the local and regional economies and their performance, including:	Appendix 9C
	<ul style="list-style-type: none"> - Gross domestic product (GDP); 	Appendix 9C: Section 5.2.2.3.1
	<ul style="list-style-type: none"> - Employment rate; 	Appendix 9C: Sections 5.2.1.1.1, 5.2.1.2.1, 5.2.1.3.1, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Employment by industry and occupation, including occupations related to traditional activities; 	Appendix 9C: Sections 5.2.1.1.1, 5.2.1.1.3, 5.2.1.2.1, 5.2.1.2.4, 5.2.1.3.1, 5.2.1.3.4, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3
	<ul style="list-style-type: none"> - Job vacancy and unfilled positions, labour force growth, participation and balance between wage and non-wage sector activities and earnings growth; 	Appendix 9C: Sections 5.2.1.1.1, 5.2.1.2.1, 5.2.1.3.1, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3
	<ul style="list-style-type: none"> - Poverty levels and annual level of social assistance benefits and recipients; 	Appendix 9C: Sections 5.2.1.1.1, 5.2.1.2.1, 5.2.1.3.1, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3
	<ul style="list-style-type: none"> - Local consumer prices and cost of living, particularly with respect to food, fuel, utilities, transportation and affordable housing; 	Appendix 9C: Sections 5.2.1.1.2, 5.2.1.2.3, 5.2.1.3.3, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3
	<ul style="list-style-type: none"> - Level of local households consuming harvested meat and fish and current harvest activities; 	Appendix 9C: Sections 5.2.1.1.3, 5.2.1.2.4, 5.2.1.3.4, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3
	<ul style="list-style-type: none"> - Current and projected land-based enterprises and economic activities, including those related to tourism, outfitting, commercial harvesting, recreation, renewable and nonrenewable resources; 	Appendix 9C: Sections 5.2.1.1.1, 5.2.1.2.1, 5.2.1.3.1, 5.2.2.1.1, 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.3; Section 9.7.1, 9.7.2.1.2, 9.7.4.1.2
	<ul style="list-style-type: none"> - Number of licensed businesses with breakdown by Aboriginal ownership; and, 	Appendix 9C: Section 5.2.1.3.2
	<ul style="list-style-type: none"> - Local and regional economic development goals and objectives as identified in public consultations and regional land use plans. 	Appendix 9C: Section 5.2.1.3.2
5.2.3. Education, Training and Skills	Provide a description of the education, skills and training levels in the communities relevant to the highway, including graduation and achievement rates including high school or higher, and trade certification levels.	Appendix 9C: Sections 5.4.1, 5.4.2
	Describe adult basic education and literacy programs in the communities along the highway route and identify any other education, training and/or certification programs and institutions available within the region to residents of the highway area that are relevant to the highway.	Appendix 9C: Sections 5.4.1, 5.4.2



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ToR Section	ToR Requirement	Where Addressed
	Describe the timing and duration of education and skills development programs that would be required for highway-related employment.	Section 9.5.2
5.2.4. Infrastructure and Institutional Capacity	Describe the local and regional infrastructure and institutions, including current levels of use of existing social, institutional, family, health and community services and local, regional and territorial infrastructure, which government organizations provide them, and the capacity of these to meet current, additional and new needs. Particular attention will be given to:	Appendix 9C
	– Health facilities and services, including medivac services;	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Emergency response and law enforcement services;	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Waste disposal and management;	Appendix 9C: Sections 5.3.1.1.3, 5.3.1.2.3, 5.3.1.3.3, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Water and sewage facilities;	Appendix 9C: Sections 5.3.1.1.3, 5.3.1.2.3, 5.3.1.3.3, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Power and fuel services;	Appendix 9C: Sections 5.3.1.1.3, 5.3.1.2.3, 5.3.1.3.3, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Transportation systems (barging, roads, airports);	Appendix 9C: Sections 5.3.1.1.3, 5.3.1.2.3, 5.3.1.3.3, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Telephone/ communication service;	Appendix 9C: Sections 5.3.1.1.3, 5.3.1.2.3, 5.3.1.3.3, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	– Fire protection;	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Housing stock, costs and availability; 	Appendix 9C: Sections 5.3.1.1.1, 5.3.1.2.1, 5.3.1.3.1, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	<ul style="list-style-type: none"> - Safe houses and shelters 	Appendix 9C: Section 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	<ul style="list-style-type: none"> - Child care and elder care services; 	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2
	<ul style="list-style-type: none"> - Schools and education facilities; 	Appendix 9C: Sections 5.3.1.1.4, 5.3.1.2.4, 5.3.1.3.4, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	<ul style="list-style-type: none"> - Recreational facilities; 	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3
	<ul style="list-style-type: none"> - Management of renewable resources; 	Appendix 9C: Sections 5.3.1.2.3, 5.3.1.3.3
	<ul style="list-style-type: none"> - Supply of aggregate and granular materials; 	Appendix 9C: Sections 5.1.1.1.2, 5.1.1.3.5
	<ul style="list-style-type: none"> - Planned major capital projects or planned major social or institutional changes in the highway area. 	Section 9.13
5.2.5. Human Health and Community Wellness	Provide a description of the status of human health and community wellness in the study area, including:	Appendix 9C
	<ul style="list-style-type: none"> - The physical, mental and social health of residents of the areas affected by the highway; 	Appendix 9C: Sections 5.5.1.1, 5.5.1.2, 5.5.1.3, 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.5.3
	<ul style="list-style-type: none"> - Support systems and programs available regionally and locally to address human health and community wellness (e.g., health services, elder care, child care, counseling, alcohol and drug treatment, healing centres) 	Appendix 9C: Sections 5.3.1.1.2, 5.3.1.2.2, 5.3.1.3.2, 5.3.2.1.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3, 5.5.1.1.2, 5.5.1.1.3, 5.5.1.2.2, 5.5.1.2.3, 5.5.1.3.2, 5.5.1.3.3, 5.5.2.1.2, 5.5.2.1.3, 5.5.2.2.2, 5.5.2.2.3, 5.5.2.3.2, 5.5.2.3.3, 5.5.2.4.2, 5.5.2.4.3,
	This description of health status should include indicators of determinants of health, including physical, social, cultural and economic aspects.	Appendix 9C: Sections 5.5.1.1, 5.5.1.2, 5.5.1.3, 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.5.3



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ToR Section	ToR Requirement	Where Addressed
5.2.6. Harvesting	Provide a description of current and traditional harvesting, focusing on subsistence and commercial harvesting, including harvesting activities and other traditional uses by Aboriginal peoples within study area. (This will include harvest levels, participation, locations (with specific attention to high use areas and areas of sensitivity, and seasonal access), transmission of culture, and contributions to household economies).	Appendix 11A, Section 11.2
	Describe any recent and current encroachments and restrictions of harvesting activities (i.e. by competing uses of land and resources or related regulations).	Section 10.2.2.1, 10.2.2.2, 10.2.2.3, 11.2.3.1.1
	Describe outfitting and trapping activities and related use areas (active and fallow).	Section 11.2.3, Section 11.4.2, Section 11.4.3, Section 11.5.2, Section 11.5.3 and Section 11.4.2.2.
5.2.7. Land Use	Describe traditional and current land use patterns, designations and special management areas in the study area, including:	Appendix 11A, Appendix 9C
	<ul style="list-style-type: none"> – Land uses, including but not limited to the following: 	
	<ul style="list-style-type: none"> ▪ Traditional use areas; 	Appendix 11A, Section 11.2.4, 11.2.5 TRRC Traditional Land and Resource Use Report (confidential); NWRRC Traditional Land and Resource Use Report (confidential)
	<ul style="list-style-type: none"> ▪ Special harvesting sites; 	Appendix 11A, Section 11.2.4, 11.2.5 TRRC Traditional Land and Resource Use Report (confidential); NWRRC Traditional Land and Resource Use Report (confidential)
	<ul style="list-style-type: none"> ▪ Traditional trails; 	Appendix 11A, Section 11.2.4, 11.2.5 TRRC Traditional Land and Resource Use Report (confidential); NWRRC Traditional Land and Resource Use Report (confidential)
<ul style="list-style-type: none"> ▪ Seasonal and permanent camp areas (i.e., individual work, recreational, commercial); 	Appendix 9C: Sections 5.1.1.1.4, 5.1.1.2.3, 5.1.1.3.4, 5.3.1.2.2	



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> ▪ Parks and recreation areas; 	Appendix 9C: Sections 5.1.1.1.4, 5.1.1.2.3, 5.1.1.3.4, 5.3.1.2.2
	<ul style="list-style-type: none"> ▪ Transportation corridors; 	Appendix 9C: Section 5.3.1
	<ul style="list-style-type: none"> ▪ Granular resources; 	Appendix 9C: Sections 5.1.1.1.2, 5.1.1.3.6
	<ul style="list-style-type: none"> ▪ Industrial zones such as the Norman Wells oil pipeline (line 21). 	Appendix 9C: Section 5.1.1.1.3, 5.1.1.2.4, 5.1.1.2.5, 5.1.1.3.5, 5.1.1.3.7,
	<ul style="list-style-type: none"> – Land use designations, including but not limited to the following: 	
	<ul style="list-style-type: none"> ▪ Protected areas; 	Appendix 9C: Sections 5.1.1.2.2, 5.1.1.3.3
	<ul style="list-style-type: none"> ▪ Areas of high conservation value/ecological sensitivity; 	Appendix 9C: Sections 5.1.1.2.2, 5.1.1.3.3; Section 19.2.2
	<ul style="list-style-type: none"> ▪ Ecologically important areas; 	Appendix 9C: Sections 5.1.1.2.2, 5.1.1.3.3; Section 19.2.2
	<ul style="list-style-type: none"> ▪ Caribou protection measures. 	Appendix 10A: Section 3.2.2.1, 3.2.2.2
	<ul style="list-style-type: none"> – Valued aesthetic locations and their attributes; 	Appendix 9C: Sections 5.1.1.2.6, 5.1.1.3.8
	<ul style="list-style-type: none"> – Lands and features of special interest or value, and their attributes. 	Appendix 9C: Section 5.1.1.2.2, 5.1.1.3.3; Section 11.2.5; Appendix 11A: Section 4
5.2.8. Heritage Resources	Describe the existing archaeological, paleontological, and historic resources, collectively referred to here as heritage resources, within the study area. Include:	Appendix 22A
	<ul style="list-style-type: none"> – Archaeological, paleontological and historic sites and resources; 	Appendix 22A: Section 3.2.2; Appendix 11A: Section 4.0
	<ul style="list-style-type: none"> – Culturally important sites; 	Appendix 22A: Section 3.2.2; Appendix 11A: Section 4.0
	<ul style="list-style-type: none"> – Burial sites; 	Appendix 22A: Section 3.2.2
	<ul style="list-style-type: none"> – Heritage resource potential. 	Appendix 22A: Section 3.2.3
6. Development Description		
	The developer will fully describe the facilities and activities associated with all phases of the development, including a discussion of the need for the project, alternative methods of carrying out the project and development schedule.	Chapter 5, Chapter 7



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ToR Section	ToR Requirement	Where Addressed
6.1. Project Components and Activities	The development description for the all-weather highway should address both the initial winter road and the all-weather highway, as applicable, for the following topics:	Chapter 5; Appendix 5A
	– All-season gravel highway from Wrigley to Norman Wells;	Section 5.2
	– Design standards;	Section 5.2.1, 5.2.2
	– Land requirements (footprint, location, permanent or temporary, ownership, zoning);	Section 5.2.3 and Appendix 5A
	– Right of way clearing;	Section 5.4.4
	– Road construction methods;	Section 5.4.6
	– Water crossing structures and locations;	Section 5.4.7
	– Borrow source locations, quality and quantities, activities and methods;	Section 5.4.5
	– Temporary winter or all-season access roads to borrow areas;	Section 5.4.5
	– Camps, staging areas, laydown areas, access roads and other support facilities;	Section 5.4.3
	– Fuel storage and management;	Section 5.4.10
	– Explosives manufacturing plant, storage, transportation, and use;	Section 5.4.5.3
	– Equipment requirements (by phase);	Section 5.4.10
	– Solid waste management;	Section 5.4.3, 5.4.12
	– Water use;	Section 5.4.11, 5.5.4
	– Wastewater treatment;	Section 5.4.12
– Mobilization/demobilization;	Section 5.4.2, 5.4.8	
– Frequency of vehicle and aircraft movement during construction;	Section 5.4.2	
– Routine maintenance activities;	Section 5.5.1, 5.5.2, 5.5.3	
– Expected traffic volumes during operational phase;	Section 5.5.1	
– Clean-up /restoration of work areas during construction phase;	Section 5.4.9	



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ToR Section	ToR Requirement	Where Addressed
	– Reclamation;	Section 5.4.9
	– Procurement and implementation approach;	Section 5.4.14
	– Training, employment and business opportunities;	Section 5.4.14, 5.5.5
	– Ongoing operations and maintenance of the all-weather highway;	Section 5.5.1
	– Land ownership and jurisdiction including any implications to land quantum of settled land claims that the highway crosses;	Section 6.2
	– What mechanisms will be used to secure tenure of the right of way;	Section 6.1
	– Land requirements including footprint, location, permanent or temporary, ownership, and zoning.	Section 6.2, 5.4.4, 5.4.5, and Appendix 5A
6.2. Development Phases and Schedule	The development description must also contain an overall and seasonal activity schedule for the development and describe the following aspects of the development in relation to development phases and schedule:	Section 5.4.1, 5.4.14, 5.5.6
	– Identify which government agencies or departments are responsible for the maintenance and operation of the highway.	Section 5.5.1
	– Identify the roles and responsibilities of the communities along the route (if any).	Section 5.4.15
	– Identify the overall capital cost of the highway.	Section 1.2.1
6.3. Life of the Project	The developer will clearly describe the operational life of the highway and how this development fits with the overall goals, objectives and long-term planning of the GNWT for territorial highways. In this discussion, the developer will include the following:	Section 1.1, 1.2, Appendix 1A
	– Identify which government agencies or departments are responsible for the long-term maintenance and operation of the highway;	Section 1.5, Section 5.5.1
	– Identify and quantify the anticipated short, medium and long term use/users of the highway; and,	Section 5.5.9.1
	– Discuss how government would respond to and manage the highway, if an increase in the number of heavy industrial users evolves over time (which may, for example, result in increased operation, protective services and maintenance costs).	Section 5.5.9.1



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ToR Section	ToR Requirement	Where Addressed
7. Assessment of Environmental Impacts and Cumulative Effects		
	The developer will be responsible for the identification and assessment of effects of the development on the biophysical and human environment and for the assessment of cumulative effects resulting from the development in combination with past, present and reasonably foreseeable developments and activities.	Volume 2, 3 and 4, Sections x.4 and x.5 in Sections 9-20
	The developer is encouraged to utilize information and lessons learned from the assessment of this project in the preparation of its DAR.	noted
	Further, the developer is encouraged to utilize lessons learned from the existing Norman Wells pipeline	noted
7.1. Effects Assessment	Identification of potential environmental effects:	
	<ul style="list-style-type: none"> - The potential interactions of the development with the valued component and resulting potential environmental effects to the valued component will be identified. 	Volume 2, Tables 9.3, 9.4, 9.5, 9.6, 9.7; Section 10.3, 10.4, 11.1.3 Volume 3 Section x.3, x.4 in all Sections
	<ul style="list-style-type: none"> - The developer will present quantitative or qualitative parameters to measure potential environmental and cumulative effects on the valued component. 	Tables 9.3, 9.4, 9.5, 9.6, 9.7, 10.2, 11.2, 12.3, 13.2, 14.2, 15.2, 16.2, 17.2, 18.2, 19.2, 20.2, 22.2
	<ul style="list-style-type: none"> - The spatial and temporal boundaries for the assessment of effects on the valued component will be presented and justified. 	Section 9.2.5; Section x.1.4 in all other VC assessment chapters
	Mitigation and residual effects:	
	<ul style="list-style-type: none"> - The developer will describe all mitigations that will be put into effect during project design, construction or operation to mitigate potential environmental effects. 	Sections 9.5, 9.6, 9.7, 9.8, 9.9, 9.16; Section x.4 in all other VC assessment chapters
	<ul style="list-style-type: none"> - The developer will assess potential effects on the valued component after implementation of mitigations. 	Sections 9.5, 9.6, 9.7, 9.8, 9.9; Section x.4.4 in all other VC assessment chapters
	<ul style="list-style-type: none"> - Residual effects will be clearly identified and characterized based on methodology presented in DAR. 	Section 9.10; see summary tables in Section x.4.4 in all other VC assessment chapters



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ToR Section	ToR Requirement	Where Addressed
	<p>Assessment of cumulative effects:</p> <ul style="list-style-type: none"> – For each residual effect resulting from the development, the developer will conduct an assessment of the potential for cumulative effects resulting from a combination of effects of the development with effects from other past, present and reasonably foreseeable human activities and developments. – The way in which a cumulative effect may occur and its potential spatial and temporal scope will be discussed. – Residual cumulative effects will be identified. – The developer will characterize the significance of residual project and cumulative environmental effects and identify mitigations that may exist for cumulative effects beyond those for project specific effects. 	<p>Section 9.13; Section x.5 in all other VC assessment chapters</p> <p>Section 9.13; Section x.5 in all other VC assessment chapters</p> <p>Section 9.13; Section x.5 in all other VC assessment chapters</p> <p>Section 9.13; see summary table in Section x.5 in all other VC assessment chapters</p>
<p>7.2. Key Lines of Inquiry</p>	<p>This EA will focus on priority issues termed key lines of inquiry. The key lines of inquiry are:</p> <ul style="list-style-type: none"> – Local social and economic considerations; – Wildlife harvesting, in particular caribou and moose. 	<p>Volume 2</p> <p>Summarized in Section 8.2</p> <p>Summarized in Section 8.3</p>
<p>7.2.1. Local Social and Economic Considerations</p>	<p>Please describe existing conditions and evaluate potential effects from the project on the following, at both the general and community-specific levels, including:</p> <ul style="list-style-type: none"> – Availability of drugs and alcohol and related social changes at the community, family and individual levels; – Human safety including collisions on the all-weather road, collisions with pedestrians in town, drunk driving, and the capacity for emergency response to accidents in communities and remote areas; – Predicted changes in demands for social infrastructure (including, policing and crime, health services, and social services), and the adequacy of existing social infrastructure to meet those changes (including potential shortfalls); – Capacity of public physical infrastructure such as existing roads, water sources, quarries and quarry materials, and waste management facilities. 	<p>Section 8.2.2, 9.5.6, 9.5.9, 9.5.10</p> <p>Section 8.2.3, 9.5.9, 9.8.3</p> <p>Section 8.2.4, 9.8.3</p> <p>Section 8.2.5, 9.8.4</p>



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ToR Section	ToR Requirement	Where Addressed
	Please describe and evaluate potential effects of the project on the following, at both the general and community-specific levels, including:	
	<ul style="list-style-type: none"> - Direct and indirect employment opportunities generated by the development and the potential for uptake of these opportunities locally by Aboriginal peoples; 	Section 8.2.6.1, 9.7.2
	<ul style="list-style-type: none"> - Employment and income opportunities for every year of construction and operation, with particular reference to wage and salary employment by length of employment, form of employment (full time, part time, seasonal), skills category; 	Section 8.2.6.1, 9.7.2
	<ul style="list-style-type: none"> - Measures, plans and commitments for maximizing local and Aboriginal employment and businesses; 	Section 9.7.2.2, 9.7.4.2
	<ul style="list-style-type: none"> - Maximizing local and Aboriginal participation in contractor and sub-contractor business opportunities; 	Section 9.7.4.2
	<ul style="list-style-type: none"> - Effects on capacity of local businesses to service other sectors during the construction phase; 	Section 8.2.7, 9.7.4
	<ul style="list-style-type: none"> - Cost of living and consumer prices for different types of goods; 	Section 8.2.8, 9.7.5
	<ul style="list-style-type: none"> - Proposed education and training programs required for highway-related construction and operation employment, including: 	
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Local and regional training opportunities; 	Section 8.2.10, 9.6.2, 9.6.3, 9.6.4
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Timing and duration of programs, in relation to the highway development schedule; 	Section 8.2.10.2, 9.6.2, 9.6.3, 9.6.4
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Skills and experience gained in the highway workforce that could be applied to other available projects or sectors; 	Section 9.6.2, 9.6.3, 9.6.4
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ The number of people expected to be employable and available; 	Section 8.2.6.1, 9.6.2
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ The potential for local development of skills for senior professional positions (e.g. labourer/heavy equipment operator vs. supervisor /manager); 	Section 9.6.2, 9.6.3, 9.6.4
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Proposed programs that would be provided by or sponsored by the developer. 	Section 8.2.10.2, 9.6.2, 9.6.3, 9.6.4, 9.16



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - The development's contribution to the Gross Domestic Product, provided separately for direct, indirect and induced economic activities for the regional and (to the extent possible) territorial and national economies; 	Section 8.2.6.1, 9.7.3
	<ul style="list-style-type: none"> - Highway-related impacts on harvesting and the traditional economy (see item 7.2.3 Caribou, moose and harvesting below) and their effects on community income and household economies. 	Section 8.2.9, 9.7.6
7.2.2. Caribou, Moose and Harvesting	Describe and evaluate the potential impacts of the highway, for the preferred and alternate routes, on caribou and moose, and what this means to harvesting. This section will also include any impacts to harvesting of other species. This will include both construction and operation periods. For moose and caribou, this will include an examination of:	Chapter 10, Chapter 11
	<ul style="list-style-type: none"> - Sensitive or important areas or habitat; 	Appendix 10A: Sections 3.2.2.1 (Boreal Caribou), 3.2.2.2 (Barren-ground Caribou), and 3.2.2.3 (Moose)
	<ul style="list-style-type: none"> - Direct and indirect alteration of habitat including highway footprint impact; 	Section 8.3.2, 8.3.3, 8.3.4, 10.4.2
	<ul style="list-style-type: none"> - Sensory disturbance, and predicted changes in behaviour (including habitat avoidance and effective habitat loss in relation to highway facilities or activities), energetics, health and condition; 	Sections 8.3.5, 8.3.6, 10.4.2. and 10.4.5
	<ul style="list-style-type: none"> - Wildlife movement patterns, home ranges, distribution and abundance; 	Section 8.3.5, 8.3.6, 10.4.3; Appendix 10A: Sections 3.2.2.1 (Boreal Caribou), 3.2.2.2 (Barren-ground Caribou), and 3.2.2.3 (Moose)
	<ul style="list-style-type: none"> - Wildlife mortality due to harvesting and vehicle collisions; 	Sections 8.3.7, 8.3.8, 8.3.9, 10.4.4; Appendix 10A: Sections 3.2.2.1 (Boreal Caribou), 3.2.2.2 (Barren-ground Caribou), and 3.2.2.3 (Moose)
	<ul style="list-style-type: none"> - Disruption of sensitive life stages or habitat (e.g., migration, calving, denning, overwintering); 	Section 10.4.2 (change in habitat), 10.4.3 (change in movement)
	<ul style="list-style-type: none"> - Population cycles; 	Appendix 10A: Sections 3.2.2.1 (Boreal Caribou), 3.2.2.2 (Barren-ground Caribou), and 3.2.2.3 (Moose)



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> – Predator-prey relationships; 	Section 8.3.10, 10.4.4; Appendix 10A: Sections 3.2.2.1 (Boreal Caribou), 3.2.2.2 (Barren-ground Caribou), and 3.2.2.3 (Moose)
	<ul style="list-style-type: none"> – Increased human-wildlife interactions; 	Section 8.3.10, 10.4.4
	<ul style="list-style-type: none"> – Contaminant levels in harvested species that could be changed by the highway; 	Section 8.3.11, 10.4.5
	Regarding harvesting, this section will examine:	
	<ul style="list-style-type: none"> – Changes in access, including increased access to the land and surrounding lakes, as well as increased access to an environmentally and culturally sensitive areas; 	Section 8.3.12, 11.4.3
	<ul style="list-style-type: none"> – Changes in hunting and fishing pressures from people who do not reside in the communities along the route, and how highway-related changes in harvest pressures could impact the resource; 	Section 8.3.13, 10.4.4, 11.4.2, Section 17.4.3.2
	<ul style="list-style-type: none"> – Sensory disturbances of other harvested wildlife species; 	For caribou and moose: Section 10.4.4; For other wildlife: Section 19.4.4
	<ul style="list-style-type: none"> – Changes in the abundance and distribution of harvested resources, including caribou, moose and other wildlife (e.g., furbearers, waterfowl) that would adversely affect harvesting; 	Section 8.3.13, 11.4.2
	<ul style="list-style-type: none"> – Disturbance of harvest patterns, or loss or alteration of high-value harvest areas including: <ul style="list-style-type: none"> ▪ Changes to harvest effort as perceived by harvesters; 	Section 8.3.12, 11.4.2, 11.4.3
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Changes in harvester travel patterns; 	Section 8.3.14, 11.4.3, 11.4.4
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Changes in harvest levels; 	Section 10.4.4, 11.4.2
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Changes in harvesters' costs; 	Section 9.5.5.1.2
	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Competition among harvesters within and between communities as a result of increased access and loss or alteration to the land resulting from the project. 	Section 9.9.3.1.2, 11.4.2



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> – Changes in the quality of harvested species (including contamination) that would negatively affect their consumption; 	Section 10.4.5, 11.4.2
	<ul style="list-style-type: none"> – Measures to avoid or minimize changes in the abundance, distribution, or quality of harvested species, or mitigate the consequences of such changes; 	Sections 10.4.4, 10.4.5, 11.4.2, 19.4.4
	<ul style="list-style-type: none"> – Mechanisms to control project workforce-related hunting, fishing, or disturbance of wildlife; 	Section 10.4.5
	<ul style="list-style-type: none"> – Mechanisms of resource management agencies and other parties to manage hunting, and fishing by: <ul style="list-style-type: none"> ▪ Resident hunters and fishers; ▪ Non-resident hunters and fishers; ▪ Aboriginal harvesters. 	Wildlife Management and Monitoring Plan ([WMMP], Volume 5)
		WMMP; Section 11.4.2.2.1
		WMMP; Section 11.4.2.2.1
		WMMP; Section 11.4
7.3.1. Terrain, Soils, and Permafrost	Describe and evaluate the potential effects of the project on terrain, geology, soils and permafrost including a consideration of:	Chapter 14
	<ul style="list-style-type: none"> – Slope and soil stability, erosion and subsidence; 	Appendix 14A, Section 4.6, Section 5.2
	<ul style="list-style-type: none"> – Granular resource extraction areas (including quantity and quality of granular resources); 	Section 5.4.5
	<ul style="list-style-type: none"> – Thaw slumps and compaction of organic peat lands and potential for melt of ice rich ground; 	Appendix 14A, Section 4.6, Section 5.2.3, Section 4.5
	<ul style="list-style-type: none"> – Snow distribution and consequences on ground thermal regime; 	Appendix 14A, Section 4.52
	<ul style="list-style-type: none"> – Drainage beside and beneath the road, channelization and non-channelization flow and permafrost degradation. 	Appendix 14A, Section 4.5.6, Appendix 15A, Appendix 15B
	With respect to potential impacts of the highway on permafrost, include consideration of:	
	<ul style="list-style-type: none"> – Permafrost as a design feature in the road bed, failure modes analysis and associated contingency plans; 	Not applicable (permafrost is not a design feature); Section 14.7.1; Volume 5: Draft Permafrost Protection Plan



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Thermal conditions, active layer thickness, thaw depth, distribution and stability; 	Section 14.4.4; Appendix 14A: Section 4.52
	<ul style="list-style-type: none"> - Ice rich soils (thaw settlement, thermokarst) permafrost thaw and related settlement; 	Section 14.4.4; Appendix 14A, Section 4.52, Section 5.0
	<ul style="list-style-type: none"> - Frost heave or frost susceptible soils in thin permafrost as well as seasonally frozen soils; 	Section 14.4.4; Appendix 14A: Section 4.5.2, Section 4.6
	<ul style="list-style-type: none"> - Thaw or settlement-related impacts on drainage and surface hydrology (see also water quality and quantity); 	Sections 14.4.2, 15.4.2; Appendix 14A: Section 4.5.6, Section 4.7, Appendix 15A, Appendix 15B
	<ul style="list-style-type: none"> - Shorelines, channels, and taliks; 	Sections 15.4.4, 18.4.6; Appendix 14A: Section 4.5.6, Section 5.0, Appendix 15A, Appendix 15B
	<ul style="list-style-type: none"> - Combined impacts of the highway and fires. 	Appendix 14A, Section 4.6.3
7.3.2. Air Quality	Describe existing air quality in the highway area, including airsheds, emission sources, seasonal variations, existing and historic air quality, and visibility (as related to highway safety such as known fog areas).	Appendix 12A: <ul style="list-style-type: none"> • Section 2.1 for airsheds • Section 4.1.3 for criteria air contaminant emission sources • Section 4.2 for greenhouse gas emissions • Section 4.3 for seasonal variations • Section 4.1.2 for existing and historical air quality • Section 4.3.4 for visibility
	Describe and evaluate the potential impacts of the highway on air quality including a consideration of:	Chapter 12
	<ul style="list-style-type: none"> - Dust and carbon emissions from vehicles, equipment and stationary sources; 	Section 12.4.2 for dust emissions Section 12.4.3 for carbon emissions
	<ul style="list-style-type: none"> - Emissions by source for each highway phase, including quantity, timing and duration, normal operation conditions and upsets; 	Section 12.4.4



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> – How changes in air quality could have an impact on humans, wildlife and vegetation; 	Section 12.4
	<ul style="list-style-type: none"> – Ice fog, dust and visibility. 	Section 12.4.2.3
	Relevant territorial, provincial and federal air quality legislation, standards or guidelines should be discussed, including their purpose in relation to the highway phases.	Section 12.1.1
	The discussion of air quality impacts should also consider guidance and standards from the Canadian Council of Ministers of the Environment.	Section 12.1.1
	The developer will provide an assessment of the potential health impacts to humans, wildlife, and vegetation related to highway emissions for all project phases.	Section 12.4.2
	Dust suppression techniques must also be discussed and evaluated in this assessment.	Section 12.4.2.2
7.3.3. Noise	Describe existing noise levels along the proposed highway route, including sources, types and boundaries, and any relevant standards, guidelines or objectives. The developer will describe and evaluate the potential impacts of highway-related noise, including a consideration of:	Chapter 13; Appendix 13A
	<ul style="list-style-type: none"> – Highway components and activities that could produce noise levels of concern, including source location, timing and duration; 	Sections 13.1.3, 13.3
	<ul style="list-style-type: none"> – Sensory disturbance to fish, birds and wildlife, including boreal caribou and moose; 	Sections 10.4.2, 17.4.3.3, 19.4.2, 19.4.3, 20.4.2, 10.4.3
	<ul style="list-style-type: none"> – Disturbance of harvest and recreational activities, including tourism; 	Sections 9.9.2, 9.9.5, 11.4.2, 11.4.3
	<ul style="list-style-type: none"> – Potential impacts to wildlife harvesting activities; 	Sections 11.4.2, 11.4.3
	<ul style="list-style-type: none"> – Impacts to communities. 	Sections 9.5.7, 9.9.4
	Relevant territorial, provincial and federal noise standards or guidelines should be discussed, including their purpose and use in relation to the project phases.	Section 13.1.1
	The developer will provide a comparison of anticipated noise levels along the highway with current industrial, municipal or ambient noise levels.	Section 13.5.1



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ToR Section	ToR Requirement	Where Addressed
	The developer will provide an assessment of the potential health impacts arising from highway related changes in noise levels, including potential impacts of sleep disturbance and annoyance.	Section 13.4.2
	Describe the proximity of the highway to receptors of the human environment, such as residences, cabin, camps and harvesting areas as well as valued components of the biophysical environment.	Section 13.4.1; Appendix 13A: Section 5.1
7.3.4. Water Quality and Quantity	Describe and evaluate the potential impacts of the highway on water quality and quantity, including a consideration of:	Chapter 15; Chapter 16
	– Changes to surface drainage patterns and surface water hydrology including changes caused by highway-related impacts on terrain, soils and permafrost;	Section 15.4.2
	– Hydrogeological resources;	Section 15.4.3, 15.4.4
	– Drinking water quality for humans and wildlife;	Section 9.5.8 Section 16.4.2
	– Recreational water quality;	Section 9.5.8
	– Discharge or seepage of wastewater effluent, contaminants, chemical additives, etc.;	Section 15.4
	– Changes to water quality at water crossings (bridges, culverts and other wetted areas);	Section 16.4.2
	– Changes to water quality due to thaw slumps and other slope instability at water crossing;	Section 16.4.2
	– Changes to snow distribution and potential impacts on drainage;	Section 15.4.2
	– Issues related to borrow extraction including melting of ground ice and potential changes to drainage patterns etc.;	Sections 14.4.4, 15.4.2,
	– Erosion, sediment deposition, sediment re-suspension;	Section 16.4.2
– Dust and dust suppression;	Sections 15.3 (water quantity), 16.4.2 (water quantity),	
– Increased turbidity;	Section 16.4.2	



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ToR Section	ToR Requirement	Where Addressed
	– Flow or water levels including potential for glaciation and icings at watercourse crossings;	Sections 15.4.2, 15.4.3
	– Water withdrawal and volume of withdrawal (e.g., for ice roads, potable water, dust suppression);	Sections 15.4.2, 15.4.3
	– Impacts of the highway on navigation on navigable waterbodies;	Section 5.4.7.1, 11.4.2
	– Potential effects on the aquatic environment including biota;	Section 16.4.2, 17.4
	– Water use during gravel extraction.	Section 15.4.4
	The developer will provide site specific water quality objectives set out as narrative statements, about the level of protection required for waters potentially affected by the construction and operations of the highway in order to maintain current and future water uses.	Section 16.1.1, 16.8
7.3.5. Sediment Quality	Describe and evaluate the potential effects of the project on sediment quality, including consideration of:	Chapter 16
	– Potential effects related to changes in water quality and quantity;	Section 16.4.2
	– Potential issues associated with clearing of vegetation;	Section 16.4.2
	– Potential increases in TSS concentration associated with construction, modification and use of roads and water crossings;	Section 16.4.2
	– Potential effects on the aquatic environment.	Section 17.4.2
7.3.6. Species at Risk and Species of Concern	Consider any change that the highway may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in ss. 2(1) of SARA (see definition of impact on the environment in SARA Appendix 3, Definitions).	Section 19.4.2.3, 20.4.2.3.1.5, 20.4.2.3.2.5
	Take into account the requirements of SARA and provide the information necessary to evaluate the potential impacts of the highway on the species contemplated by this Act including mitigation and monitoring.	Section 19.4.1, 20.4.1
	All direct, indirect and cumulative effects should be considered.	Sections 19.0, 20.0
	Species under consideration should also include those listed on Schedule 1 of SARA, and those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).	Section 19.2.2, 20.2.2



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ToR Section	ToR Requirement	Where Addressed
	In addition to considering those species identified through engagement and consultation events with communities, and any other species deemed necessary by the developer, the developer will also take into consideration the GNWT's Species at Risk (NWT) Act which applies to any wild animal or plant species managed by the GNWT, on both public and private lands, including private lands owned under a land claim agreement.	Section 17.2.2, 18.2.2.3, 19.2.2, 20.2.2
	demonstrate to the Review Board how the Sahtu Land Use Plan and the results of any traditional knowledge and community consultation activities have been used to shape the approach taken to assess impacts to species of special management concern.	Section 10.1.3, 10.1.2, 19.1.1.3, 19.2, 20.1.1.3, 20.1.2
7.3.7. Fish and Fish Habitat	The developer will describe and evaluate potential impacts of the highway on valued components related to fish and fish habitat, including:	Chapter 17
	Alteration or loss of fish habitat due to development activities during all project phases;	Section 17.4.2
	<ul style="list-style-type: none"> – Effects of proposed watercourse crossings and temporary vehicle crossing method; 	Section 17.4.2.2
	<ul style="list-style-type: none"> – Standards or guidelines related to watercourse crossings that would be applied; 	Table 17.8
	<ul style="list-style-type: none"> – Relevant policies, management plans or other measures to protect or enhance fish and fish habitat, including timing restrictions, protected areas or regulations; 	Section 17.1.1, Table 17.8
	<ul style="list-style-type: none"> – Disruption of sensitive life stages or habitat (e.g., spawning and incubation, rearing, overwintering) including loss of substrate habitat, known sensitive or important sites; 	Section 17.4.2
	<ul style="list-style-type: none"> – Effects on riparian areas; 	Section 17.4.2
	<ul style="list-style-type: none"> – Impacts related to changes in water quality or quantity; 	Section 17.4.4
	<ul style="list-style-type: none"> – Distribution or abundance; 	Appendix 17A: Section 4.2; Section 17.4.2, 17.5.3
<ul style="list-style-type: none"> – Sensitive or important areas or habitat; 	Section 17.2, Appendix 17A	



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Contaminant levels in harvested species that could be changed by the highway, if applicable; 	Section 17.4.4
	<ul style="list-style-type: none"> - Potential effects on fish health; 	Section 17.4.3
	<ul style="list-style-type: none"> - Blockages to movement; 	Section 17.4.3
	<ul style="list-style-type: none"> - Blasting (if required); 	Section 17.4.3.3
	<ul style="list-style-type: none"> - Dredging or disposal of sediments; 	Section 17.4.4.1
	<ul style="list-style-type: none"> - Effects of water withdrawal; 	Section 17.4.3.1
	<ul style="list-style-type: none"> - Potential for increased pressure on the resource that could arise from improved access; 	Section 17.4.3.2
	<ul style="list-style-type: none"> - Reclamation of in-stream and riparian work areas during construction and also during maintenance operations; 	Table 17.8
	<ul style="list-style-type: none"> - Criteria for evaluating the success of mitigation or reclamation measures, and indicate when and how this evaluation would be conducted (see also follow-up and monitoring). 	Volume 5, Draft Fish and Fish Habitat Protection Plan
	For follow-up and monitoring, the developer will develop a monitoring program for the fish and habitat resources of water bodies along the highway corridor	Section 17.9
7.3.8. Wildlife and Wildlife Habitat	For wildlife other than those species included in section 7.2.3(caribou, moose and harvesting), please describe and evaluate the potential impacts of the highway on wildlife or wildlife habitat including a consideration of:	Chapter 19
	<ul style="list-style-type: none"> - Direct and indirect alteration of habitat including highway footprint impact; 	Section 19.4.2
	<ul style="list-style-type: none"> - Visual or auditory disturbance, including habitat avoidance and effective habitat loss in relation to highway facilities or activities; 	Section 19.4.2
	<ul style="list-style-type: none"> - Wildlife mortality due to increased harvesting and vehicle collisions; 	Section 19.4.4
	<ul style="list-style-type: none"> - Disruption of sensitive life stages or habitat (e.g., migration, calving, denning, overwintering); 	Section 19.4.2; 19.4.3
	<ul style="list-style-type: none"> - Wildlife movement patterns, home ranges, distribution and abundance; 	Section 19.4.3
	<ul style="list-style-type: none"> - Sensitive or important areas or habitat; 	Section 19.2, Appendix 19A



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ToR Section	ToR Requirement	Where Addressed
	– Population cycles;	Section 19.4.2
	– Predator-prey relationships;	Section 19.4.4
	– Increased human-wildlife interactions;	Section 19.4.4
	– Contaminant levels in harvested species that could be changed by the highway;	Section 19.4.5
	– Wildlife health and condition.	Sections 19.4.2 and 19.4.5
	Discuss the duration and geographic extent (e.g. distance of noise related disturbance) of potential impacts in relation to how wildlife populations and harvest activities could be affected.	Sections 19.4 and 19.5
7.3.9. Birds and Bird Habitat	The Mackenzie Valley is a migratory flyway for waterfowl and contains important staging and breeding areas for waterfowl and waterbirds. It includes birds that are rare or otherwise at risk. Describe and evaluate the potential impacts of the proposed highway on valued components related to birds and bird habitat, including a consideration of:	Chapter 20
	– Sensitive or important species, areas or habitat within the study area;	Section 20.2, Appendix 20A
	– Disruption of sensitive life stages or habitat including, nesting, rearing, staging, moulting, migrating;	Section 20.4.2
	– Direct and indirect alteration of habitat within the study area;	Section 20.4.2
	– Visual or auditory disturbance, including habitat avoidance in relation to highway facilities or activities and light disturbance;	Section 20.4.2
	– Bird distribution, abundance, health and condition;	Sections 20.4.2, 20.4.4
	– Contaminant levels in harvested species that could be changed by the highway;	Section 20.4.4
	– How highway-related changes in harvest pressures could impact the resource;	Section 20.4.3
	– Attraction of predators of birds and bird eggs to the project, or the provision of nesting or denning habitat for predators and scavengers;	Section 20.4.3
	– Potential mortality from collisions with temporary or permanent structures, wires or vehicles.	Section 20.4.3



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ToR Section	ToR Requirement	Where Addressed
7.3.10. Vegetation	The developer will describe and evaluate the potential impacts of the proposed highway on vegetation including a consideration of:	Chapter 18
	– Alteration or loss of species, or vegetation assemblages that are rare, valued, protected or designated sensitive or important areas or habitat;	Section 18.4.4
	– Amount of merchantable timber removed during right of way clearing, and the potential for facilitating use of waste timber by communities;	Section 18.4.3.3
	– Introduction of non-native and/or invasive species;	Section 18.4.2, 18.4.4
	– Effects of highway emissions including dust;	Section 18.4.2, 18.4.4
	– How changes in right of way clearing might impact permafrost and the highway itself;	Section 14.4.4
	– Changes to the soil, hydrological or permafrost regimes related to vegetation changes	Section 14.4.3 (soils), 14.4.4 (permafrost), 18.4.5 (wetland function)
	– Re-establishment of vegetation and reclamation of borrow sites and other disturbances (particularly identification of vegetation types and seed mixes to be used, and identification of the specific borrow site to be revegetated, and those borrow sites that will not be revegetated);	Section 18.4.4, Additional site-specific reclamation to be developed during permitting (per Section 6 of Quarry Development Plan Framework)
– Vegetation control during operations.	Section 18.4.3, 18.4.4, 18.4.5	
7.3.11. Biodiversity	The developer will describe the changes to the biodiversity of the study area(s) during construction, operations and any post-reclamation and the significance of these changes in a local and regional context. Describe how the highway could result in changes to biodiversity, including a consideration of:	Chapter 21
	– Ecosystem and habitat loss;	Section 21.2
	– Habitat fragmentation / barriers to movement and gene flow;	Section 21.3
	– Ability of habitat or species to recover	Section 21.4
	– Response to edge effects;	Section 21.5
	– Changes to species distribution and abundance;	Section 21.6
– Invasive/non-native species (vegetation and wildlife);	Section 21.7	



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Changes to special management areas and species of special management concern (see Sahtu Land Use Plan). 	Section 21.8
7.3.12. Country Food	<p>Many of these biophysical components are, or are linked to, the country foods harvested by local residents. The developer will identify these linkages and related sources of contaminants and other impacts in a separate discussion on the potential contamination of country foods.</p>	Section 10.4.5, 11.2.3, 11.4.2
	<p>The discussion will include the identification of which country foods are consumed, or expected to be consumed, which contaminants are of concern and an indication of whether transport pathways of contaminants into country foods will result from the proposed project and associated activities.</p>	Section 10.4.5, 11.2.3, 11.4.2
7.3.13. Cultural and Traditional Land Use	<p>Describe and evaluate the potential effects of the development on culture and traditional land uses (beyond those described in response to the discussion of impacts on harvesting in section 7.2.3 (caribou, moose and harvesting). This will include:</p>	Section 11.4
	<ul style="list-style-type: none"> - Aboriginal languages; 	Section 11.4
	<ul style="list-style-type: none"> - Traditional lifestyles, values and culture; 	Section 11.4
	<ul style="list-style-type: none"> - Cultural and spiritual sites and activities. 	Section 11.4
	<p>Describe activities taken with community members to ensure that all cultural sites along the route have been identified, and the developer's degree of confidence that it has identified all such sites.</p>	Section 2.0, Section 3.0 Section 11.0
7.3.14. Land Use	<p>Describe and evaluate the potential impacts of the highway on land use, including a consideration of:</p>	
	<ul style="list-style-type: none"> - Effects and management of increased access; 	Section 9.9.3, Section 11.4.3
	<ul style="list-style-type: none"> - Effects to traditional land use, tourism, outfitting, hunting, fishing, recreation and other nontraditional uses; 	Section 9.9.2, 9.9.5, 11.4.3
	<ul style="list-style-type: none"> - Effects and changes to industrial land use and changes in access; 	Section 9.9.3, 9.9.5
	<ul style="list-style-type: none"> - Patterns of use and changes in these patterns; 	Section 9.9.3 Section 11.4



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> – Effects to protected areas, parks, and environmentally and culturally sensitive areas; 	Section 9.9.3, 9.9.4 Section 114.4
	<ul style="list-style-type: none"> – Aesthetics; 	Section 9.9.4 Section 11.4
	<ul style="list-style-type: none"> – Potential effects to other valued components. 	Section 9.9.3, 9.9.4 Section 11.4.2, 11.4.3
	Discuss the conformity of the proposed highway-related land uses with the existing Sahtu Land Use Plan.	Section 6.3, 9.9.2
7.3.15. Heritage Resources	Describe and evaluate the potential impacts of the proposed highway on cultural heritage and special management areas, including a consideration of the following:	Chapter 22
	<ul style="list-style-type: none"> – Known site locations and areas of high potential for undiscovered sites; 	Appendix 22A; Section 22.2.2, 22.6.2
	<ul style="list-style-type: none"> – Consultation on site identification and management; 	Section 22.1.2, Table 22.1
	<ul style="list-style-type: none"> – Mitigations and management plans to protect known and undiscovered sites; 	Table 22.5
	<ul style="list-style-type: none"> – Effects of increased access on sites. 	Section 22.4.2
8. Effects of the Environment on the Project		
	The developer will consider the effects of the environment on the highway.	Section 24.0
	The developer will describe how the highway is engineered and designed to integrate into its environmental surroundings and operate safely and reliably over its life.	Section 24.3
	The developer will describe and discuss how physical and biological changes in the environment could have implications for the highway. This should include considerations of the following:	Sections 24.2, 24.4
	<ul style="list-style-type: none"> – Long-term climate change scenarios (e.g., loss of permafrost, increased evaporation and evapotranspiration, greenhouse gas emissions); 	Section 24.2.4
	<ul style="list-style-type: none"> – How likely changes in permafrost will affect the amount the granular material required for care and maintenance of the highway; 	Section 24.3



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Short-term climatic and extreme weather events (e.g., major precipitation, wind, fog, drought); 	Section 24.3
	<ul style="list-style-type: none"> - Landslides and ground movement; 	Section 24.3
	<ul style="list-style-type: none"> - Changes in permafrost regime; 	Section 24.3
	<ul style="list-style-type: none"> - Subsidence; 	Section 24.3
	<ul style="list-style-type: none"> - Seismic activity; 	Section 24.3
	<ul style="list-style-type: none"> - Fires. 	Section 24.3
9. Potential Accidents and Malfunctions		
	The developer will describe and evaluate possible accidents or malfunctions, their probable and potential effects on the environment, including impacts on social, economic, and cultural elements of the environment and human health to people in close proximity of accidents or malfunctions, including spills of contaminants for the life of the highway.	Section 25.0
	The developer will describe the process for the implementation of any mitigation measures or contingency plans	Section 25.7.1
	The developer must demonstrate a commitment to having an Environmental Protection Plan and Emergency Response Plan that would address potential accidents and malfunctions for the life of the highway. In part, the Emergency Response Plan must include:	Section 25.7.1, 25.7.2
	<ul style="list-style-type: none"> - Plans for alerting and evacuating employees during an emergency; 	Volume 4: Emergency Response Plan Framework
	<ul style="list-style-type: none"> - Pertinent information in the case of an emergency (people in charge, equipment available, plans and maps to locate works); 	Volume 5: Emergency Response Plan Framework
	<ul style="list-style-type: none"> - The developer’s internal emergency intervention structure and decision-making mechanisms; 	Volume 5: Emergency Response Plan Framework
	<ul style="list-style-type: none"> - The means of communication with the external emergency preparedness organization; 	Volume 5: Emergency Response Plan Framework
	<ul style="list-style-type: none"> - The measures considered to protect the people that could be affected; 	Volume 5: Emergency Response Plan Framework



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - The means to quickly alert the people that could be affected; in collaboration with the municipal, Aboriginal and other government organizations concerned, advising public authorities of the alert and subsequent information about the situation. 	Volume 5: Emergency Response Plan Framework
	Particular attention should be focused on sensitive elements of the environment that could be affected in the event of an accident or malfunction over the life of the highway, and that could potentially make the consequence worse (e.g., proximity of cabins, heritage sites or environmentally sensitive sites).	Section 25.4, 25.6, 25.8
	Where potentially significant impacts could occur as a result of an accident or malfunction, the developer will assess the probability of such an occurrence, taking into account weather or extreme external events that present contributing factors.	Section 25.5
	The developer will identify and discuss, for each project phase, the potential accidents or malfunctions that may occur as a result of the highway, including a consideration of:	
	<ul style="list-style-type: none"> - Spills of a hazardous material (on land, ice and in water - freshwater and marine); 	Section 25.8.1
	<ul style="list-style-type: none"> - Explosion and/or fire; 	Section 25.8.2
	<ul style="list-style-type: none"> - Transportation, storage, manufacture and use of explosives; 	Section 25.8.3
	<ul style="list-style-type: none"> - Transportation accidents (air, land, water); 	Section 25.8.4
	<ul style="list-style-type: none"> - Harvesting; 	Section 25.8.1.6, 25.8.2.8, 25.8.3.5
	<ul style="list-style-type: none"> - Social and cultural elements of the environment; 	Section 25.8.1.7, 25.8.2.9, 25.8.3.6, 25.8.4.2
	<ul style="list-style-type: none"> - Human health. 	Section 25.8.1.7, 25.8.2.9, 25.8.3.6, 25.8.4.2



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ToR Section	ToR Requirement	Where Addressed
10. Cumulative Effects Assessment		
	The cumulative effects of the proposed highway must be assessed.	Section 9.13; Section x.5 of all other VC assessment Sections; Chapter 26 (Summary)
	The cumulative effects assessment must demonstrate to the Review Board that any significant cumulative effects are adequately considered and can be successfully mitigated.	Section 9.13; Section x.5, Section x.6 of all Sections; Chapter 26 (Summary)
	The analysis of the cumulative effects must enable the Review Board to gain an understanding of the incremental contribution of all projects or activities in the vicinity of the highway, and of the highway alone, to the total cumulative effect on the valued components over the life of the highway.	Section 9.13; Section x.5, Section x.6 of all Sections; Chapter 26 (Summary)
	The developer must identify and assess the cumulative biophysical and socio-economic effects of the project in combination with other past, present or reasonably foreseeable projects and activities within the study area(s).	Section 9.13; Section x.5, Section x.6 of all Sections; Chapter 26 (Summary)
	While a project-specific assessment of cumulative effects is not responsible for assessing all cumulative impacts from other human activities, it must consider how the project's effects could interact cumulatively with the effects of other human activities, and the contribution of the highway to the overall effect.	Section 9.13; Section x.5, Section x.6 of all Sections; Chapter 26 (Summary)
	The cumulative effects assessment must follow the guidance of the Review Board's Environmental Impact Assessment Guidelines, which refers specifically to cumulative effects assessment and includes a description of how to consider reasonably foreseeable future developments. The assessment of cumulative effects of the project must include the following, but may also address other items:	Section 4.6
	<ul style="list-style-type: none"> – Identify the valued components, or their indicators, on which the cumulative effects assessment is focused, including the rationale for their selection. These are valued components affected by the highway in combination with other past, present or reasonably foreseeable future developments. Present spatial and temporal boundaries for the cumulative effect assessment for each valued component selected. Emphasize valued components with special environmental sensitivities or where significant risks could be involved. 	Chapter 4 (methods) Section 9.13; Section x.5, Section x.6 of all Sections; Chapter 26 (Summary)



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ToR Section	ToR Requirement	Where Addressed
	<ul style="list-style-type: none"> - Identify the sources of potential cumulative effects. Specify other past, present or reasonably foreseeable future developments that may substantially affect the valued components identified above. These may be in the vicinity of the project footprint, or may affect a mobile resource that moves into its vicinity (like a river or a caribou herd). 	Section 4.6.1 (Full Project Inclusion List) Section 9.13; Section x.5 of all Sections
	<ul style="list-style-type: none"> - Predict the combined effects of the highway and the other activities identified above. 	Section 9.13; Section x.5 of all Sections
	<ul style="list-style-type: none"> - Identify how the developer or others will mitigate the identified cumulative impacts. 	Section 9.13; Section x.5 of all Sections
	In addition to providing a detailed assessment in the response to each of these, a stand-alone assessment of the cumulative effects of the proposed development in combination with past, present and reasonably foreseeable future developments is required.	Chapter 26
	As a minimum, this section in the DAR must provide summaries of the analysis and results for any cumulative effects assessment done and presented under any individual Key Lines of Inquiry or Subjects of Note.	Chapter 26
	The cumulative effects assessment will consider regional plans (including Sahtu Land Use Plan and the Dehcho Draft Land Use Plan), species recovery plans, management plans and objectives and guidelines in an integrated manner in order to understand the aspirations of people and communities in the region.	Section 26.1.3
	The developer will make reasonable and conservative assumptions about relevant cumulative effects from other activities where there is an absence of data, where these effects could combine with those of the proposed highway.	Section 26.2
	The developer will consider climate trends (per section 8) in the cumulative context as well as the project specific context.	Section 26.2.3
	The developer will also provide a discussion of potential future developments that could occur as a result of, or use of, this highway (e.g., Mackenzie Gas project, oil and gas development in the central Mackenzie Valley). Include a discussion of implications for long-term operation, maintenance and management of the highway.	Section 26.2.1



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ToR Section	ToR Requirement	Where Addressed
11. Follow-Up Monitoring		
	<p>"Follow-up" means a program for verifying the accuracy of the EA of a project, and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project. The developer will:</p>	Chapter 23
	<ul style="list-style-type: none"> - Clearly describe the regulatory and non-regulatory monitoring requirements for the life of the project; 	Sections 23.4, 23.5
	<ul style="list-style-type: none"> - Provide a description of the purpose of each program, responsibilities for data collection, analysis and dissemination, and how results will be used in an adaptive management process; 	Sections 23.2, 23.3, 23.4
	<ul style="list-style-type: none"> - Describe how project-specific monitoring will be compatible with the NWT Cumulative Impact Monitoring Program or other regional monitoring and research programs; 	Specific to each VC where applicable (Section x.8); Draft Wildlife Management and Monitoring Plan
	<ul style="list-style-type: none"> - Describe how the results of follow-up monitoring and the management response framework would be used and incorporated into land use permit and water license applications in support of highway construction and operations. 	Section 23.2
	<p>The developer is encouraged to discuss and adopt common data collection and monitoring protocols with local and regional monitoring programs including GNWT-Wildlife and the Sahtu Renewable Resources to facilitate project impact analysis.</p>	Section 23.5; Draft Wildlife Management and Monitoring Plan
11.1. Environmental and Socio-Economic Effects Monitoring	<p>To the extent possible, the developer should present data in the DAR that may be used for a baseline or benchmark in setting targets, thereby providing the foundation needed in the future to demonstrate the effectiveness of mitigation measures</p>	Section x.2 of all Sections and draft Management Plans included in Volume 5
	<p>Where the developer does not present such data for benchmarks and targets, the developer will commit to a schedule and a process by which such data will be provided and used in the development of follow-up and monitoring targets.</p>	Section 23.4, 23.5
	<p>As not all socio-economic indicators or data are conducive to measurement using targets, the developer should clearly state where qualitative and quantitative goals are used in place of targets.</p>	Section 9.15 Section 23.4



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ToR Section	ToR Requirement	Where Addressed
	The developer will prepare a table with effects monitoring requirements. For each effect of concern, this table will include, at a minimum, information on what the indicators and the parameters for the measurement will be and what the target or management goal will be.	Section 23.6, Table 23.1
11.2. Developer's Socio-Economic Effects Management, Policies and Commitments	Describe any management plans, policies, commitments, and arrangements directed at promoting beneficial or mitigating negative impacts to social, cultural, or economic conditions where they have been presented as a form of mitigation.	Section 9.16 Section 27.3, 27.5
	Discuss any requirements for contractors and sub-contractors to comply with these policies. Include information on the following:	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Recruitment, training, hiring, pay equity and employment policies, including those policies specifically for Aboriginal and local candidates, and those promoting participation; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Contracting and procurement policies, including those which promote local sourcing, and participation of local businesses and how this will be accomplished; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Employment policies, including policies on alcohol and drugs on the job site, harassment policies, firearms policies, work and pay schedules, and any policies related to worker access to harvesting areas; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Commuting and work rotation of workers and contractors; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Policies to managing hunting, fishing and gathering on, or from, the work site by nonaboriginal employees and contractors, while respecting the harvest rights of Aboriginal employees and contractors; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Occupational health and safety and related training, and emergency response plans for workplace accidents; 	Section 9.16 Section 27.3
	<ul style="list-style-type: none"> - Scheduling of construction activities to accommodate needs of Aboriginal harvesters (employees, contractors, and non-employees); 	Section 9.16 Section 27.3
<ul style="list-style-type: none"> - Scheduling of work activities to accommodate needs of Aboriginal employees and contractors to pursue other traditional activities; 	Section 9.16 Section 27.3	



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ToR Section	ToR Requirement	Where Addressed
	– Promoting activities and programs that increase community stability and wellness.	Section 9.16 Section 27.3

