Webequie Supply Road Environmental Assessment

DRAFT TERMS OF REFERENCE

Webequie First Nation

September 2019

661910

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Acronyms and Abbreviations

ANSI	Areas of Natural and Scientific Interest
ASCR	All-Season Community Road
BMP	Best Management Practice(s)
CBLUP	Community Based Land Use Plan
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EA Act	*Environmental Assessment Act*
EAR	Environmental Assessment Report
EASR	Environmental Activity and Sector Registry
ECA	Environmental Compliance Approval
ECCC	Environment and Climate Change Canada
ELC	Ecological Land Classification
EPP	Environmental Protection Plan
ESA	Endangered Species Act
GIS	Geographic Information System
GRT	Government Review Team
IAA	*Impact Assessment Act*
IS	Impact Statement
ISC	Indigenous Services Canada
LIO	Land Information Ontario
LiDAR	Light detection and ranging (surveying method)
ENDM	Ministry of Energy, Northern Development and Mines
MNDM	Ministry of Northern Development and Mines (2017)
MNDMF	Ministry of Northern Development, Mines and Forestry (2011)
MNRF	Ministry of Natural Resources and Forestry
MECP	Ministry of the Environment, Conservation and Parks
MOI	Ministry of Infrastructure
MTCS	Ministry of Tourism, Culture and Sport
MTO	Ministry of Transportation of Ontario
NHIC	Natural Heritage Information Centre
NAPS	Nishnawbe-Aski Police Service
OBBA	Ontario Breeding Bird Atlas
PSW	Provincially Significant Wetland
ROM	Royal Ontario Museum
PTTW	Permit to Take Water
ROW	Right-of-Way
SAR	Species at Risk
SARA	*Species at Risk Act*
SARO	Species at Risk in Ontario
TISG	Tailored Impact Statement Guidelines
ToR	Terms of Reference
TAC	Transportation Association of Canada
SWH	Significant Wildlife Habitat
UTM	Universal Transverse Mercator
WFN	Webequie First Nation
WSR	Webequie Supply Road

1 Introduction

The purpose of this document is to present the Terms of Reference (ToR) for the Webequie First Nation Supply Road Project ("Webequie Supply Road", "WSR", "the Project") to meet the requirements of the Ontario *Environmental Assessment Act* (EA Act). The ToR is a document that establishes the framework for the planning and decision-making process during the Environmental Assessment (EA) and is submitted by the proponent to the Minister of the Environment, Conservation and Parks (MECP) for review and approval.

Alongside the ToR document, material to be submitted for the public record includes the Record of Consultation, which is a stand-alone written record that documents the engagement of and consultation with Indigenous (First Nation and Métis) communities, government agencies, the public, and stakeholders during the development of the ToR, including feedback received (comments, concerns, questions) and project team responses.

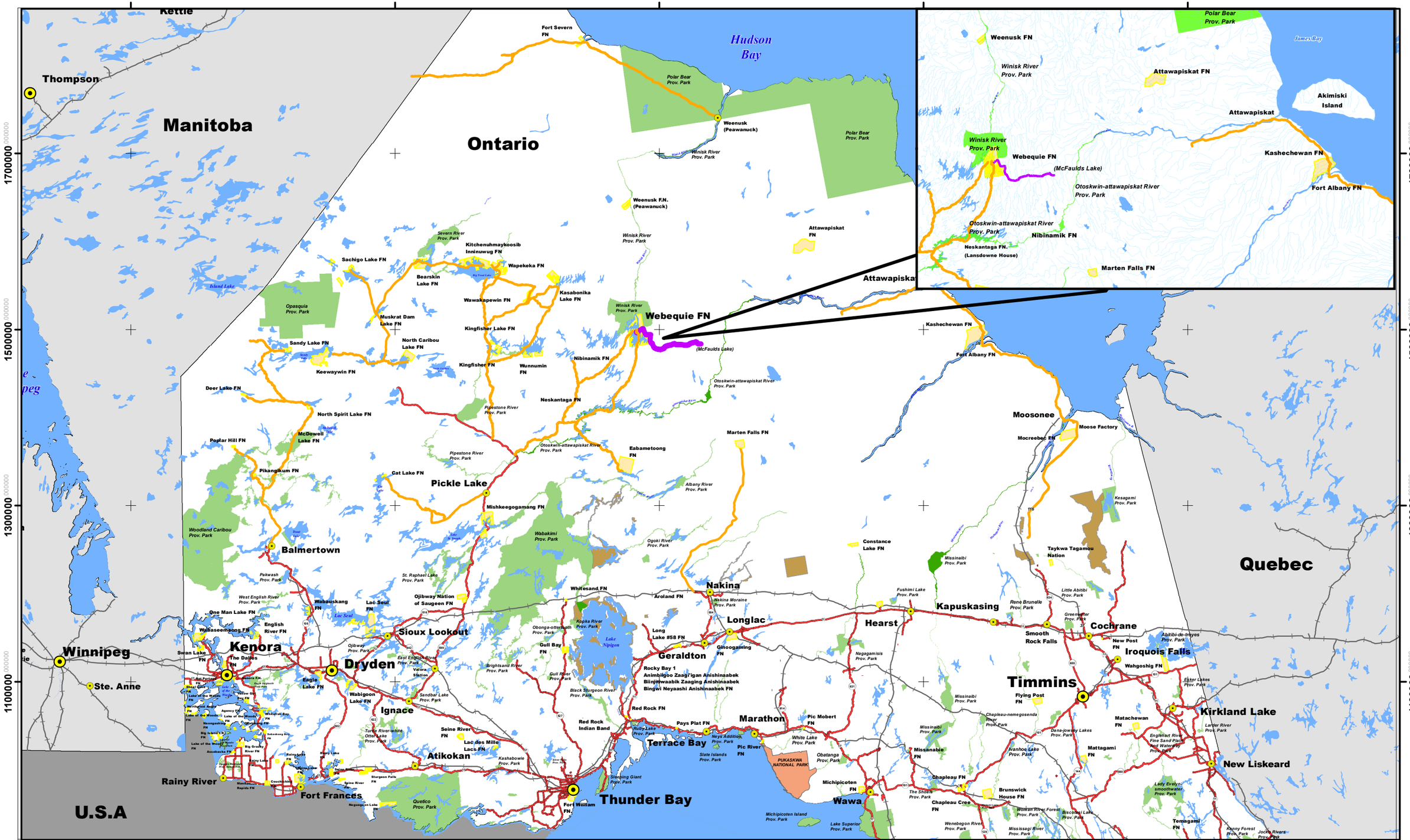
The proposed Webequie Supply Road is a new all-season road of approximately 107 km in length from Webequie First Nation to the mineral deposit area near McFaulds Lake (also referred to as the Ring of Fire). A Location Plan for the Project is shown on **Figure 1.1.** The preliminary corridor for the road consists of a northwest-southeast segment running 51 km from Webequie First Nation to a 56 km segment running east before terminating near McFaulds Lake. A total of 17 km of the corridor is within Webequie First Nation Reserve lands. Based on the scale and complexity of the Project, and the potential for significant environmental effects, an Individual Environmental Assessment must be completed for approval under the EA Act.

The Webequie Supply Road could be constructed and operated as a facility that only provides a connection between Webequie First Nation and the McFaulds Lake area to serve mineral exploration and future mining development activities, with no connection to the provincial highway system. However, it is expected that there will ultimately be an all-season road connection between the McFaulds Lake area and the provincial highway system to ensure/maximize the viability of mine developments. This means that, with implementation of the Project, it is also likely that Webequie First Nation could more readily gain year-round access to the provincial highway system (i.e., the community currently has no plans to avoid an all-season road connection to the provincial highway system). It is in this scenario that the effects of the road would likely be realized or felt to the fullest.

1.1 Proponent

The Project proponent is Webequie First Nation (WFN). Webequie First Nation is an Ojibway community located in Northwestern Ontario, approximately 525 km north of Thunder Bay (refer to **Figure 1.1**). The Webequie First Nation is a fly-in community with no summer road access, and a total registered on-reserve population of 923 people (Indigenous Services Canada, 2019).

The Webequie First Nation Reserve is currently serviced by the Webequie Airport. Since 2015, the community has been involved in the investigation of an all-season road corridor as a means to better service the community, and provide for economic development opportunities for its members and businesses that reside in or around the community's reserve and traditional territory.



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1.2 Proponent Contact Information

The contact information for the proponent is as follows:

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1.3 Project Background and Context

The Webequie First Nation is a remote fly-in community that has access to materials and goods via the Webequie Airport and the use of seasonal winter roads that connect to the provincial highway system.

To provide context and background for the proposed development of the all-season Webequie Supply Road (WSR) and the scope of this EA, it is important to understand the various road/transportation studies that have been completed in the region. A brief description of these relevant studies is presented below. Section 5 of the ToR (Description of and Rationale for Alternatives) provides additional detail. All of these studies have contributed to the rationale for the development of the WSR.

Noront Resources Eagle's Nest Mine Access Road (2013)

In 2013, Noront Resources prepared a draft federal/provincial Environmental Impact Statement/ Environmental Assessment Report (EIS/EAR) for their proposed Eagle's Nest mine in the McFaulds Lake area, which examined alternative road routes and types (e.g., winter, all-season and combined winter/all-season) that would connect the mine to the provincial highway system. The Noront draft EIS/EAR was not completed. The WSR Project Team understands that the document was reviewed by federal agencies and comments were returned to Noront, but it was not circulated to provincial agencies for comment. At present the Noront EIS/EA is on hold until there is more certainty about a potential all-season road to be developed by others. Details on the current status of Eagle's Nest Mine project, which now excludes any consideration of an all-season road connection to the provincial highway network as part of the environmental assessment, can be found on Noront's website (http://norontresources.com). However, the federal/provincial EA work undertaken by Noront up to 2013 date does provide relevant context on the alternative road routes considered in the study area for the WSR. In identifying route alternatives for the

Eagle's Nest mine access road, it was Noront's intention in 2013 to maximize the use of existing winter road corridors and thereby minimize additional clearing and environmental effects. From this assessment, the preferred route was identified as an east-west connection via Webequie First Nation to the Pickle Lake Road (previously Highway 808) and Highway 599 near Pickle Lake. This access road route provided potential all-season access to the provincial highway system for Webequie First Nation and other First Nations, including the Nibinamik, Neskantaga and Eabametoong First Nations.

From the Webequie First Nation perspective, this corridor provided community benefits by having an all-season access to the provincial highway system. In addition, the community would have potential economic development opportunities related to the transportation of goods and services between Webequie and the mine development area.

Cliffs Ferroalloys Black Thor Mine Integrated Transportation System (2011)

In 2011, Cliffs Natural Resources ("Cliffs"), announced its intention to move forward with permitting and development of the Black Thor Chromite Mine in the McFaulds Lake Ring of Fire area. From this study, Cliffs developed an Integrated Transportation System (ITS) that optimized all-season road connection of the Black Thor mine assets and facilities with the provincial highway system and the CN Rail system at Highway 584 near Nakina. Around the same time, KWG Resources (KWG), also active in the McFaulds Lake area, studied transportation options into the Ring of Fire area and identified a preference for a rail/road link that followed a similar corridor to the Cliffs proposed road corridor.

From the Webequie First Nation perspective, the preferred ITS selected by Cliffs did not include winter road or all-season road connection to the Webequie First Nation, thereby limiting the potential for the community to transport goods and services to the mine development area and potential for connection to the provincial highway system.

Winter Road Re-Alignment Study (2008)

On behalf of four First Nations (Marten Falls, Eabametoong, Neskantaga, Nibinamik and Webequie), the Matawa First Nations Tribal Council conducted a study in 2008 to examine realigning selected sections of winter roads. A number of the winter roads for consideration in the study were in the vicinity of the current WSR study area. The study included extensive consultation with the First Nations, regulatory agencies and other stakeholders (e.g., forestry companies and outfitters) and identified a number of alternative solutions (e.g., improvement to road design and construction standards) to address deficiencies in the winter road system.

All-Season Community Road Study (2016)

Webequie First Nation, in partnership with three (3) other First Nations (Neskantaga, Nibinamik and Eabametoong), completed the All-Season Community Road Study (ASCRS) in June 2016. The purpose of this study was to examine options for interconnecting these First Nation communities to the provincial highway system with the goal of providing community social and economic benefits. Many alternatives were examined, including those previously preferred by Noront Resources, Cliffs and KWG Resources.

From the community engagement and assessment completed, a preferred corridor was identified with a general east-west orientation that connected the four communities to the provincial highway system. The

preferred corridor/road from the 2016 ASCRS did not connect to the McFaulds Lake area due to unresolved issues and concerns expressed by some participating First Nations about mining development in the Ring of Fire area.

From the Webequie First Nation perspective, the preferred alternative emerging from the 2016 ASCRS provided a number of social and economic benefits, including the interconnection with other First Nation communities. However, there was additional interest in continuing to examine a supply road connection into the McFaulds Lake area. The connection between Webequie and McFaulds Lake is considered important to Webequie First Nation, as it could provide broader economic development opportunities and social benefits above and beyond the benefits of an all-season community road to Pickle Lake.

All-Season Community Road Study – Phase 2 (2017)

In 2017, the Nibinamik and Webequie First Nations continued the ASCRS on their own to refine the preferred corridor analysis from the previous phase of the study. The ASCRS – Phase 2 involved many discussions with Nibinamik and Webequie land users, elders and youth to refine the corridor centreline and to determine support for an east-west connection to the provincial highway system at the Pickle Lake Road. The Phase 2 study also included more extensive data collection, including field studies and gathering of more Indigenous Knowledge information. The Phase 2 study identified a refined east-west all-season road corridor, which has essentially the same purpose of connecting Webequie and Nibinamik to the provincial highway system at Pickle Lake.

From the Phase 2 study, it was determined there is reasonably strong support for an all-season community road to the provincial highway system, but not clear and full community support amongst the potentially connected and/or affected First Nations for interconnection of the all-season road to mining activity in the McFaulds Lake area.

From the perspective of the Webequie First Nation, there was general community and political support for an all-season community road to the provincial highway system. However, there was concern that the discussion of the all-season road did not include an extension from the community eastwards to McFaulds Lake, which was thought to provide potential for greater economic development opportunities associated with the proposed mine exploration and future mining operations.

The above studies, as background and context, provide the foundation for the development of the proposed Webequie Supply Road. In particular, the ASCRS and refined Phase 2 study helped to guide Webequie First Nation to identify the current preliminary preferred corridor for the Project, including consideration of alternatives. Further discussion and details of how and why project alternatives were developed to date and the determination of the preliminary preferred corridor for consideration in the EA Study are presented in Section 5 of the ToR.

1.4 Purpose and Rationale for the Undertaking and Study

On May 3, 2018, the Ontario Minister of Environment, Conservation and Parks (then Minister of Environment and Climate Change) signed a voluntary agreement with Webequie First Nation to make the Webequie Supply Road Project subject to Ontario's *Environmental Assessment Act*.

The EA Act requires the proponent to set out the reasons for developing the Project in a statement of purpose, and further requires the proponent to provide a rationale for developing the undertaking. These are provided in the following sections.

1.4.1 Purpose of the Undertaking

The goals and objectives of the Webequie Supply Road Project ("the Undertaking") are as follows:

- To facilitate the movement of materials, supplies and people from the Webequie Airport to the area of existing mineral exploration activities and proposed mine developments in the McFaulds Lake area;
- To provide employment and other economic development opportunities to WFN community members and businesses that reside in or around the community's reserve and traditional territory, while preserving their language and culture; and
- To provide experience/training opportunities for youth to help encourage pursuit of additional skills through post-secondary education.

The preliminary proposed corridor for the Project will accommodate a two (2) lane all-season gravel road. The EA Study for the Project will assess corridor alternatives and complete an effects assessment and evaluation of the selected preferred corridor for the all-season road and supporting infrastructure elements, which include aggregate extraction and processing areas, access roads, laydown/storage yards and construction camps. In accordance with the Ontario *Environmental Assessment Act*, the EA Study will involve an assessment of potential environmental effects, evaluation of alternatives, description of impacts, identification of mitigation measures and conclusions on the overall net effects of the Project on the environment.

1.4.2 Rationale for the Undertaking

The significant mineral potential in and around the McFaulds Lake area (Ring of Fire) has been well documented and will not be repeated in this Terms of Reference, although details will be provided in the Environmental Assessment.

For the purposes of this Terms of Reference, it is important to understand that accessing the Ring of Fire area from the provincial highway system and/or the national railway system is a key aspect to continuing exploration and for the development of future mining operations.

The type and location of infrastructure that is needed to connect the mineralized area with markets to the south has been examined for a number of years, as described in Section 1.3 above, both directly for the purposes of connecting future mining operations to provincial and national infrastructure, as well as in the context of broader provincial objectives for infrastructure development in the region.

Different types of ore and different scales of mining operation necessitate different types of infrastructure. There are many types of minerals that have been found in the Ring of Fire area. Some of these, primarily gold, could potentially be developed, processed and delivered to market with the existing winter road and airport infrastructure. However, the large deposits of chromite and other metals, such as nickel, that are also prevalent in the area, and have the potential to provide the greatest social and economic benefits, cannot be developed and processed relying solely on existing infrastructure, including with consideration of the proposed Webequie Supply Road. Due to the volume of ore to be transported to off-site processing

facilities an all-season industrial road connection to the provincial highway system and/or heavy rail connection to the national railway system is required for these types of mining developments to be economically viable under the current market conditions.

In addition to the mining context and potential economic development benefits of linking the WFN to the mineralized zone, the Webequie Supply Road is also relevant in the context of broader, long-term provincial growth, development and multimodal transportation initiatives in the region. Although WFN is seeking approval for the development of a supply road, the basic corridor (35 m right-of-way width) that will be subject to environmental assessment will be wide enough to accommodate future communications (e.g., broadband fibre optic line) and low voltage power distribution line, if and when connection is established to the provincial highway and electricity grid system. If ultimately built, these other infrastructure elements will bring additional economic development, education and health benefits. The key provincial plans and government priority initiatives around regional infrastructure include the following, the relevance of which are summarized in **Appendix A** to the ToR.

- The 2041 Northern Ontario Multimodal Transportation Strategy (Draft) (MTO and MNDM, 2017);
- The Growth Plan for Northern Ontario (MOI and MNDMF, 2011); and
- Ontario's Mineral Development Strategy (MNDM, 2015).

As discussed in Section 1.3, a number of studies have been conducted to examine the optimum location for the required infrastructure which support and provides the basis for the proposed Webequie Supply Road. In these studies, routing considerations such as distance (and cost) to access either the provincial highway system and/or the national railway system were examined, as well as other factors considered to be important for identifying the optimum routes for connecting infrastructure, including (but not limited to):

- Potential social and economic impacts and benefits to First Nations communities in the region;
- Environmental impacts;
- Constructability (in particular, the availability of well-drained land and access to aggregate materials);
- Distance to potential processing facilities;
- Safety of road users (i.e., dedicated versus mixed commercial and non-commercial traffic); and
- Ownership (in particular, private versus public ownership).

The Province of Ontario and Federal government funded the All-Season Community Road Study in 2016 and Ontario provided funding for the 2017 All–Season Road Study. These studies examined alternative road connections between the provincial highway system near Pickle Lake, several First Nations to the north, and the proposed Noront Resources Eagle's Nest nickel-copper-platinum mine in the McFaulds Lake area. The preferred road corridor coming out of these studies is commonly referred to as the east-west alignment. In 2018, studies were initiated to further examine an all-season road interconnection between Nakina (near Geraldton) in the Greenstone Region and the Marten Falls First Nation, with longer term consideration of a continuation of that road north to the Ring of Fire area. The proposed section of all-season road between Nakina and Marten Falls First Nation is referred to as the Marten Falls Community Access Road project, which is subject to Ontario's *Environmental Assessment Act*. Marten Falls First Nation is also from a feasibility perspective, and as a separate project, examining an all-season road from their community to the Ring of Fire mineralized area. Collectively, these two projects are commonly referred to as the north-south corridor between the provincial road network to the mineralized area near McFaulds Lake. These studies by Marten Falls are ongoing in parallel to the Webequie Supply Road EA.

A development group known as the East-West Ring of Fire Road Coalition, made up of representatives of northern municipalities and businesses and First Nations leaders, has indicated their interest in continuing to examine the East-West road option from the Pickle Lake area into the mineralized zone.

From the perspective of the Webequie First Nation, a road connection between the community and the McFaulds Lake area would facilitate their participation in the supply of goods and services to the existing and future mining activities at McFaulds Lake, regardless of whether a north-south or east-west connection to the existing highway network is developed to facilitate future mine development. If a north-south corridor is ultimately developed, in addition to providing economic development opportunities, the Webequie Supply Road would also provide connection to the provincial highway system at Nakina. If an east-west corridor is ultimately developed, the Webequie Supply Road would facilitate the community's participation in the supply of goods and services to the existing and future mining activities at McFaulds Lake, while the east-west road would provide connection to the provincial highway system near Pickle Lake.

As plans and studies move forward towards the identification of the ultimate interconnection of the mineralized zone and the provincial highway system and/or national railway system continue, the Webequie First Nation will continue to move its plans forward for their supply road, and will maintain interests in participating in either of the north-south and/or east-west all-season road options.

In addition to road connection to the areas of potential mineral development, and ultimately the provincial highway system, WFN and some other remote First Nation communities are also interested in exploring the potential for connection to the provincial electricity grid and the telecommunications grid in the future.

1.5 Outline of Terms of Reference (ToR)

The ToR for the Webequie Supply Road Project identifies the process that will be followed during preparation of the EA in accordance with the requirements of the EA Act. Once approved by the MECP, the EA will be prepared in accordance with the detailed requirements set out in the approved ToR. In accordance with the MECP *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario*, (MECP, 2014) the ToR contains the following information:

- Identification of the proponent;
- Indication of how the environmental assessment will be prepared;
- Purpose of the study or undertaking;
- Description of the undertaking (the Project);
- Description of and rationale for alternatives;
- Description of the existing environment and potential effects of the undertaking;
- Approach for the assessment and evaluation of alternatives and the undertaking;
- Commitments and monitoring;
- Consultation plan for the environmental assessment;
- Flexibility to accommodate new circumstances; and,
- Other approvals required.

The ToR document is organized into the following sections in order to satisfy the requirements under the EA Act:

- Regulatory Framework for the Project (Section 2)
- Approach for the Preparation of the Environmental Assessment (Section 3)
- Description of the Undertaking (Section 4)
- Description of and Rationale for the Alternatives Considered (Section 5)
- Existing Environmental Conditions in the Study Area (Section 6)
- Potential Environmental Effects (Section 7)
- Approach for Assessment and Evaluation of Effects (Section 8)
- Commitments and Monitoring (Section 9)
- Consultation (Section 10)
- Flexibility to Accommodate New Circumstances (Section 11)
- Other Permits and Approvals (Section 12)

2 Regulatory Framework for the Project

2.1 Regulatory Framework

2.1.1 Ontario's Environmental Assessment Act

The Ontario *Environmental Assessment Act* (EA Act) is a planning and decision-making process to ensure the protection, conservation, and wise management of the environment.

Projects can be classified as falling under either a Class Environmental Assessment process or an Individual Environmental Assessment process.

Class Environmental Assessments are those projects which are approved subject to compliance with an approved standardized planning process. This standardized planning process is for classes or groups of projects that are carried out routinely and have predictable environmental effects which can be largely mitigated. No formal approval under the *Environmental Assessment Act* is required, provided the procedural requirements of Class EA parent documents are followed, and a request to the Minister of the Environment, Conservation and Parks to make the undertaking subject to Part II of the EA Act (the preparation of an Individual EA) (Part II Order) is not granted.

Individual Environmental Assessments are completed for those projects which are complex in nature with the potential for significant environmental effects.

The Webequie Supply Road Project is following an Individual Environmental Assessment process (refer to ToR Section 3.2 for details). The Project will be subject to meeting the requirements of Ontario's *Environmental Assessment Act*, and the federal *Impact Assessment Act*.

The proposed ToR has been prepared following the *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario (MECP, January* 2014). The ToR establishes the EA assessment process and work plan for the Project.

2.1.2 Impact Assessment Act

The Webequie Supply Road Project is subject to review under the federal *Impact Assessment Act (*IAA), 2019, which requires proponents of such projects that are described in the Act's *Regulations Designating Physical Activities* to prepare Initial and Detailed Project Descriptions. "Physical Activities", are defined to include "the construction, operation, decommissioning and abandonment of a new all-season public highway that requires a total of 75 km or more of new right of ay." Review of the Detailed Project Description by the Impact Assessment Agency of Canada (the Agency), and the results of the Agency's associated engagement and consultation activities, will determine whether a federal environmental assessment must be prepared, based on the significance of anticipated environmental effects.

If a project includes an activity that is described on the Project List within the *Regulations Designating Physical Activities* subject to the Act), the principal steps in the IAA process leading to a decision on the EA typically include:

- Prior to the planning phase, the proponent prepares an Initial Project Description, containing information about the proposed project and identifying the location, local communities and Indigenous groups who may be affected. The proponent is responsible for conducting engagement activities to support the preparation of the Initial Project Description;
- If deemed acceptable, the Agency conducts a comment period on the Initial Project Description, which includes consulting with federal authorities who may be in possession of specialist or expert information or knowledge;
- During the comment period, the Agency would also seek input from various provincial, territorial and Indigenous jurisdictions, as applicable, that may have responsibilities in relation to assessment of the designated project in order to prepare for a possible impact assessment;
- Following the comment period, the Agency prepares a Summary of Issues, which includes issues raised by provincial, territorial and Indigenous jurisdictions, as applicable, Indigenous groups, the public, federal authorities and other participants. The Agency provides the Summary of Issues to the proponent, posts a copy on the Impact Assessment Registry, and shares the detailed comments with the proponent to address in the preparation of the Detailed Project Description. As applicable, the proponent is responsible for conducting engagement activities to support the preparation of the Detailed Project Description;
- Proponent prepares a Response to Summary of Issues that describes how the identified issues will be addressed, and a Detailed Project Description that meets the requirements of the Act's *Information and Management of Time Limits Regulations*;
- Proponent submits a Response to the Summary of Issues and the Detailed Project Description to the Agency. The Agency determines if an impact assessment is required and posts the decision and the reasons for the decision on the Impact Assessment Registry;
- Following receipt of the Detailed Project Description, the Agency prepares drafts of the following plans and consults with:
  a) Indigenous groups, to develop the Indigenous Engagement and Partnership Plan (describing how Indigenous groups will be engaged and consulted throughout the impact assessment process and their preferred engagement tools and strategies);
  b) The public, to develop the Public Participation Plan (outlining how the public will be engaged throughout the impact assessment process, and preferred engagement tools and strategies);
  c) Other jurisdictions, including Indigenous jurisdictions, as applicable, to develop the Cooperation Plan (describing how the Agency will work with other jurisdictions throughout the impact assessment process);
  d) Federal expert departments in order to develop the Permitting Plan (identifying the anticipated federal permits, licences and authorizations required for the Project); and
  e) All parties to develop the Tailored Impact Statement Guidelines (including the scope of the factors that are to be considered by the proponent in its Impact Statement as part of an impact assessment);
- Once finalized, the Agency provides the Tailored Impact Statement Guidelines and the Plans to the proponent and posts the documents to the Impact Assessment Registry with the Notice of Commencement;

- Following the completion of the planning phase, which takes 180 days to complete, the proponent prepares the Impact Statement in accordance with the Tailored Impact Statement Guidelines. The proponent continues to engage Indigenous groups and the public to inform its Impact Statement;
- Upon receipt of a satisfactory Impact Statement from the proponent, the Agency reviews the proponent's Impact Statement to determine if the information requirements set out in the Tailored Impact Statement Guidelines have been met. If there are deficiencies, the Agency will provide information on those gaps to the proponent;
- The Agency may engage with federal authorities, Indigenous groups, other jurisdictions and members of the public to ensure all information and studies outlined in the Tailored Impact Statement Guidelines are included in the proponent's Impact Statement;
- Proponent prepares responses to comments received from government agencies, Indigenous communities, and other interested stakeholders; Refinement of the Impact Statement;
- Once the Agency is satisfied with the content of the Impact Statement, the Agency will post a Notice of Determination on its Registry Internet Site. The proponent has three years to prepare and submit a satisfactory Impact Statement;
- Once a Determination has been posted, the 300-day time period and the Impact Assessment phase begins. The Agency would hold a formal comment period on the Impact Statement and may continue analysis of and engagement/consultation on Impact Statement throughout this phase;
- Agency considers comments received and may engage the proponent to seek clarifications, resolve issues, or to ask questions on the Impact Statement;
- Once the Agency is satisfied that it has the necessary information, the Agency prepares and holds a formal comment period on a draft Impact Assessment Report (IAR)., prepared by the Agency, and potential conditions (requirements included in a decision statement issued by the Minister of Environment and Climate Change with which the proponent must comply, including mitigation measures and follow-up programs); and also prepares a Consultation Report (including advice to the Minister regarding the adequacy of consultations to fulfill the Crown's duty to consult and accommodate Indigenous groups);
- Agency considers comments received, finalizes the IAR and potential conditions, and provides the IAR, potential conditions and Consultation Report to the Minister of Environment and Climate Change;
- Following submission of the Agency’s advice to the Minister, the Impact Assessment Phase is completed. The Minister has 30 days to issue his/her Decision based on the Impact Assessment Report. The Minister must determine if the adverse effects within federal jurisdiction and the adverse direct or incidental effects are in the public interest, or refer the determination to the Governor in Council;
- The Minister issues the Decision Statement, including detailed reasons related to the public interest determination, any enforceable conditions with which the proponent must comply, and the final description of the designated project.

2.1.3 Process for Federal-Provincial Coordinated EA

The Project is subject to both the Ontario *Environmental Assessment Act* and the federal *Impact Assessment Act*. The requirements of the Acts and the process to execute the assessments differ somewhat, as displayed in **Figure 2.1** below. As the steps in an EA required by MECP and by the Agency differ, a coordinated approach is needed to meet the requirements of the federal and provincial processes. To guide this coordinated process, Canada and Ontario entered into an agreement in entitled "Canada-Ontario Agreement on Environmental Assessment Cooperation" (2004). For the Webequie Supply Road Project, the two levels of government have indicated a willingness to follow the coordinated EA process and produce one body of documentation. The single EA document will address the requirements of both the provincial ToR and the federal Tailored Impact Assessment Guidelines. To help facilitate a coordinated process, an EA Coordination Team has been established for this project that includes representatives of both the federal and provincial governments. The purpose of this team is to address and coordinate the requirements of both processes in an efficient manner.

The EA Coordination Team is comprised of the following provincial and federal agencies:

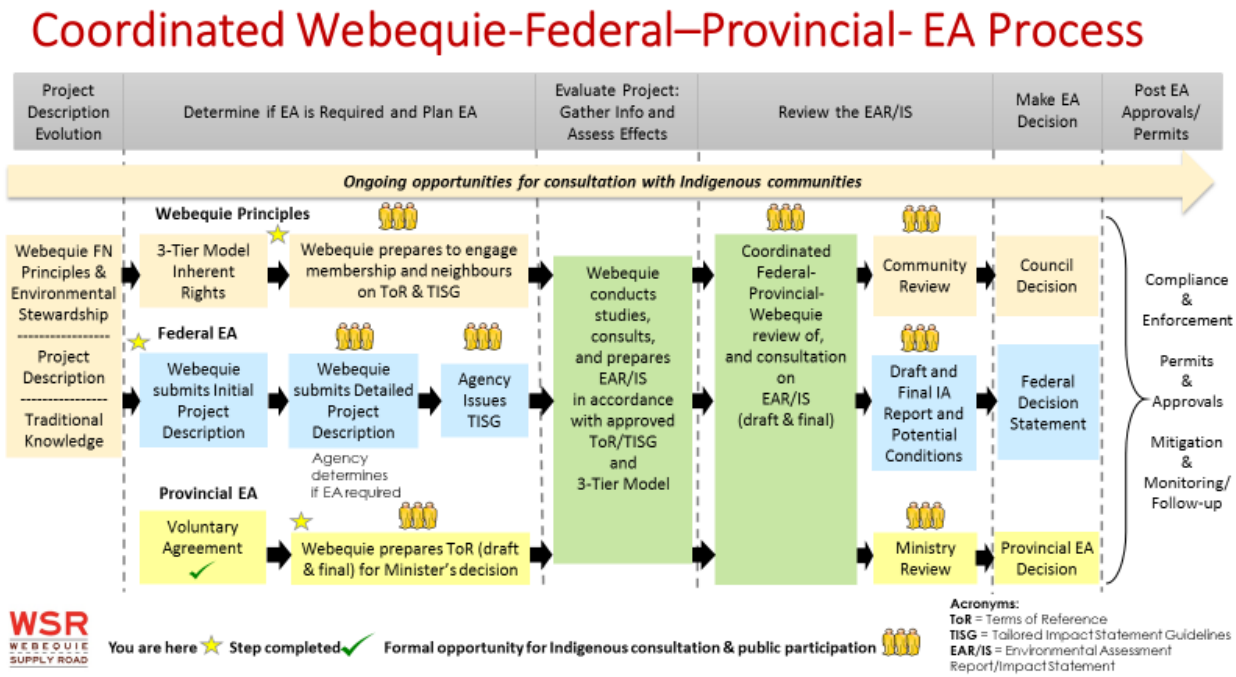
- Ontario Ministry of Energy, Northern Development and Mines;
- Ontario Ministry of the Environment, Conservation and Parks;
- Ontario Ministry of Natural Resources and Forestry;
- Ministry of Transportation Ontario; and
- Impact Assessment Agency of Canada.

The mandate of the EA Coordination Team is to meet with the Webequie Project Team on a regular basis, in a forum where team members can exchange information, including providing each other with updates on the EA process; explore issues and collectively try to resolve them before they compromise the EA process; work on coordinating the EAs and keep the processes moving forward in lockstep to the greatest possible extent; and seek feedback on Indigenous and public and stakeholder consultation. Meetings with the EA Coordination Team are scheduled to occur every two weeks via teleconference, and in person when it is determined to be of assistance.

As part of the coordinated federal-provincial EA process, the Webequie Supply Road Environmental Assessment will include the following process milestones, as presented in **Figure 2.1**:

- Pre-EA Planning, including signing of the voluntary agreement to participate in the process, development of the ToR and the Tailored Impact Assessment Guidelines;
- EA commencement;
- Environmental baseline studies and preparation of the Environmental Assessment Report/Impact Statement (EAR/IS);
- EA decision; and
- Monitoring and follow-up.

Figure 2.1: Coordinated Webequie-Federal-Provincial EA Process



2.1.4 Other Relevant Federal Legislation and Permits

The Project may require permits and approvals under the federal legislation identified in **Table 2-1**.

Table 2-1: Federal Legislation, Permits and other Authorizations

Federal Agency	Legislation/Permit/Act	Applicability to the Project
Transport Canada	*Navigation Protection Act*	Consult with Transport Canada on any work in or over a navigable waterbody that may interfere substantially with navigation (e.g., construction of a bridge, boom, dam or causeway, dumping of fill in or excavation of materials from the river bed, placement of any power cable, wire, structure or device). There are no crossings of waterbodies included in the Schedule to the Act designating Navigable Waters.
Fisheries and Oceans Canada	Authorization under *Fisheries Act*	Work or undertaking that may result in serious harm to fish that are part of a commercial, recreational or Indigenous fishery, or to fish that support such a fishery. Serious harm to fish is the

Federal Agency	Legislation/Permit/Act	Applicability to the Project
		death of fish or any permanent alteration to, or destruction of, fish habitat.
Environment and Climate Change Canada	Permit under *Species at Risk Act (2002) Section 73*	Work that causes a specified impact to a terrestrial, avian or aquatic species listed under SARA Schedule 1, or its habitat, and which contravenes the Act's general or critical habitat prohibitions (includes intrusive methods for sampling).
Indigenous Services Canada (ISC)	*Authorization under Indian Act Section 28(2)*	ISC must authorize the occupation of, use of, residency on, or exercise of rights on First Nations Reserve lands: "The Minister may by permit in writing authorize any person for a period not exceeding one year, or with the consent of the council of the band for any longer period, to occupy or use a reserve or to reside or otherwise exercise rights on a reserve." Portions of the road corridor would be located on First Nation Reserve lands.
Natural Resources Canada	Blasting Explosives Purchase and Possession Permit Transportation of Explosives Permit under the *Explosives Act*	Purchase, use, storage or transportation of explosives.

2.1.5 Other Relevant Provincial Legislation and Permits

The Project may require permits and approvals under the provincial legislation identified in **Table 2-2.**

Table 2-2: Provincial Legislation, Permits and Other Authorizations

Agency	Permit/Act	Corresponding Applicability to the Project
Ontario Ministry of Natural Resources and Forestry	Permit to Collect Fish for Scientific Purpose under the *Fish and Wildlife Conservation Act* (1997)	• To facilitate the capture and transfer of fish during in-water works, such as cofferdam construction or dewatering

Agency	Permit/Act	Corresponding Applicability to the Project
	Permit to Collect Wildlife for Scientific Purpose under the *Fish and Wildlife Conservation Act* (1997)	• Facilitates the capture and transfer of wildlife
	Authorization under the *Fish and Wildlife Conservation Act* (1997)	• Project construction and operation is anticipated to destroy the nests or eggs of birds, a beaver dam, or the den of a black bear or some furbearing mammals, or interfere with a black bear in its den
	Forest Resource Licence (Cutting Permit) under the *Crown Forest Sustainability Act* (1994)	• Harvesting and/or cutting timber on Crown land
	Burn Permit under *Forest Fires Prevention Act* (1990)	• Burning of materials from forest clearing, if required
	Public Lands Act (1990)	• Works on crown lands and/or shore lands, including geotechnical investigations, construction/upgrade of access roads and trails, culverts/bridges
	Land Use Permits	• Necessary for access roads to and within project site, temporary laydown and/or spoil areas
	Far North Act (2010)	• Permits and approvals depend on type of development and stage of completion of community-based land use plans. Note: this Act is currently being repealed
	Aggregate Permit under *Aggregate Resources Act* (1990)	• Extracting aggregate on all Crown land and on private land in areas of Province designated (specifically identified) in the regulations
	Licence of Occupation under *Public Lands Act* (1990)	• Construction work occurring on Crown lands
	Work Permit under *Lakes and Rivers Improvement Act* (LRIA)	• Channelization, diversions • Bridges and some culverts

Agency	Permit/Act	Corresponding Applicability to the Project
Ontario Ministry of the Environment, Conservation and Parks (MECP)	Permit to Take Water or Environmental Activity and Sector Registration under the *Ontario Water Resources Act* (1990)	• Where project construction requires water taking - pumping, draining, dewatering • Takings up to 50,000 L/day require no permit/registration • Takings between 50,000 and 400,000 L/day require registration (EASR) • Takings over 400,000 L/day require a permit (PTTW)
	Permit under Section 17 of the *Endangered Species Act, 2007*	• Potential for corridor/road construction to have effects on listed species or habitat
	Approval under *Health Protection and Promotion Act* (1990)	• Facilitates provision of potable water and on-site sewage treatment and disposal systems at temporary construction camp(s)
	Environmental Compliance Approval under *Environmental Protection Act* (1990)	• Enables waste to be transported by haulers from the project work site and to enable emissions from on-site equipment • An ECA will be required for on-site sewage systems with a design capacity in excess of 10,000 L/Day
	Approval under *Environmental Assessment Act*	• Consideration of potential environmental effects of the Project
Ministry of Health and Long-Term Care	Permit to Construct - Sewage System	• A district Health Unit permit will be required for on-site sewage systems with a design capacity of up to 10,000 L/Day
Ontario Ministry of Labour	*Occupational Health and Safety Act* (1990)	• Notice of Project under Section 23(2)
Ministry of Tourism, Culture and Sport	*Ontario Heritage Act* (1990)	• Letter(s) of Satisfaction for archaeological cultural heritage assessment(s) conducted as part of environmental assessment

3 Approach for Preparation of the Environmental Assessment

3.1 Environmental Assessment Principles

There are several EA principles that govern the Environmental Assessment process. These principles are used to evaluate the EA to ensure that the Project meets the requirements of the *Environmental Assessment Act* and the *Impact Assessment Act*. The Webequie Supply Road EA will incorporate these principles into the process being followed for this project. The following principles must be incorporated for the EAR/IS to meet federal and provincial regulatory requirements:

- Engagement with Indigenous communities, federal, provincial and municipal agencies and identified potentially affected stakeholders and other persons who may have an interest in the Project;
- Consideration of alternatives to the undertaking;
- Consideration of alternatives methods for carrying out the Project;
- Consideration of the environment, and potential impacts resulting from the undertaking;
- Evaluation of net environmental effects; and
- Documentation in the form of a consolidated Environmental Assessment Report/Impact Statement (EAR/IS) that will document the process followed in a transparent and traceable manner.

3.2 Indication of How the Environmental Assessment is to be Prepared

The EA for the Project will be prepared in accordance with the ToR, as approved by the Minister of the Environment, Conservation and Parks, and in accordance with the requirements of the Ontario *Environmental Assessment Act*, and the federal Tailored Impact Statement Guidelines provided by the Impact Assessment Agency of Canada (the Agency).

Under the EA Act, a proponent may prepare the EA under section 6.1(2), which includes an assessment of "alternatives to" the undertaking and "alternative methods of carrying out the undertaking, or it can proceed in accordance with subsections 6(2)(c) and 6.1(3) of the EA Act, which allow focusing of the EA on a more defined range of alternatives and the use of information other than the generic requirements outlined in subsection 6.1(2).

The following excerpts present the subsections referenced from the Act.

EA Act subsection 6.1(2):

> 6.1(2) Subject to subsection (3), the environmental assessment must consist of,
>
> (a) a description of the purpose of the undertaking;
>
> (b) a description of and a statement of the rationale for;

(i) the undertaking;

(ii) the alternative methods of carrying out the undertaking; and

(iii) the alternatives to the undertaking;

(c) a description of,

(i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly;

(ii) the effects that will be caused or that might reasonably be expected to be caused to the environment; and

(iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment, by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking;

(d) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and,

(e) a description of any consultation about the undertaking by the proponent and the results of the consultation. 1996, c. 27, s. 3.

Section 6.1(3) of the EA Act:

6.1(3) The approved terms of reference may provide that the environmental assessment consists of information other than that required by subsection (2). 1996, c. 27, s. 3.

Section 6(2) of the EA Act:

6(2) The proposed terms of reference must,

(a) indicate that the environmental assessment will be prepared in accordance with the requirements set out in subsection 6.1 (2);

(b) indicate that the environmental assessment will be prepared in accordance with such requirements as may be prescribed for the type of undertaking the proponent wishes to proceed with; or

(c) set out in detail the requirements for the preparation of the environmental assessment. 1996, c. 27, s. 3.

Proponents may engage in the use of subsections 6(2)(c) and 6.1(3) of the Act if there is a more defined planning process and more details of the Project are already known. This is generally referred to as a "focused EA". As described in Sections 1.3.1 and 5.1.2.1 of this ToR, addressing the project's background and context, over the last decade, there has been extensive examination (planning and assessment) of alternative road corridors in and around the McFaulds Lake area, as well as alternatives for interconnecting future mine developments and remote First Nations to the provincial highway system.

Therefore, this ToR proposes that project alternatives (i.e., alternatives to the undertaking) have been considered to the point where a planning solution for fulfilling the project purpose, as identified by Webequie First Nation, has been identified (i.e., an all-season road corridor). "Alternative methods" for carrying out the Project (different ways of implementing the all-season road corridor) have also initially been identified in the ToR and these will be carried forward in a focussed evaluation in the EA in accordance with EA Act subsections 6(2)(c) and 6.1(3) as suggested by MECP in *Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (January 2014)[1]. The focused EA will still be conducted to meet the requirements of subsection 6.1(2)(b) of the EA Act. Section 5 of this ToR provides the approach and analysis to the assessment of reasonable "alternatives to" the Project (including the "Do Nothing" option) and "alternative methods" of carry out the Project.

The Webequie Project Team acknowledges that assembly and use of the best available information from all sources will be required to conduct the EA. In the context of subsection 6.1(3) of the EA Act, the EA will place significant importance on Indigenous or Indigenous Knowledge (IK) information provided by Indigenous communities. Where conflicts between Indigenous Knowledge information and western science information arise, the IK information will be given priority and preference. The assessment will also be guided by the WFN principles of community consultation (referred to as the three-tier approach) to engage and consult with other First Nations (refer to Section 10.1.1 Indigenous Communities Consultation).

The EA for the Webequie Supply Road Project will be prepared in accordance with Sections 6(2)(c) and 6.1(3) of the EA Act and will include.

- A description of the purpose of the undertaking;
- A description of and a statement of the rationale for the undertaking;
- Alternative methods of carrying out the undertaking;
- A description of the environment that will be affected, or might reasonably be expected to be affected directly or indirectly by the Project and the identified reasonable alternative methods of carrying out the Project;
- An evaluation of the advantages and disadvantages to the environment as a result of implementing the alternative methods of carrying out the Project, including net effects associated with potential measures to mitigate potential adverse effects; and identification of the preferred alternative method (the Project);
- A description of the Project;
- Anticipated effects to the environment resulting from implementation of the Project;
- Commitments to mitigation and environmental protection measures that are expected to reduce the effects of the Project on valued environmental components;

[1] MECP states: "A proponent should use subsections 6(2)(c) and 6.1(3) if there is a more defined planning process and more details of the proposal are already known (for example, the potential alternatives it wishes to evaluate)."

- A description of the Indigenous community, public, government agency, and stakeholder engagement and consultation undertaken during the EA process;
- Identification of other/future permits, licences, approvals and other authorizations required to implement the Project;
- Other commitments and assurances, including follow-up environmental monitoring plans, technical investigations, and engagement and consultation programs; and
- Supporting documentation, including baseline surveys, mapping, technical memoranda and reports, and a Record of Consultation.

Detailed technical investigations and assessments will be undertaken for the Project and documented in the EAR/IS for the following:

- Physical Environment (i.e., geology, terrain and soils)
- Air Quality
- Noise
- Indigenous Knowledge
- Indigenous Land and Resource Use
- Archaeological Resources
- Groundwater
- Surface Water
- Vegetation and Wetlands
- Wildlife
- Aquatic Biology (i.e., fish and fish habitat)
- Socio-Economic Environment
- Cultural Heritage Resources
- Preliminary engineering road design assessment
- Geotechnical, soil and terrain assessment

It is important to note that investigations/assessments additional to the ones listed above may be undertaken should they be deemed necessary.

4 Description of the Undertaking

This section provides a general description of the Webequie Supply Road Project ("the undertaking"). The project description provided in this ToR represents a "Base Case" or preliminary description of the Project. A more detailed description of the undertaking will be provided in the EA. The description within the EA will be sufficiently detailed to enable the identification and assessment of potential effects for the construction and operation phases of the Project.

The Project consists of a new all-season road of approximately 107 km in length from WFN to the mineral deposit development area near McFaulds Lake (refer to **Figure 1.1**).

The proposed preliminary corridor for the all-season road consists of a northwest-southeast segment running 51 km from the Webequie First Nation community to a 56 km segment running east before terminating near McFaulds Lake. A total of 17 km of the road corridor is within the Webequie First Nation Reserve lands. The preliminary preferred corridor for the Project for the purposes of the EA and consideration of routing alternatives is approximately 2 km in width, as shown in **Figure 4.1**. Section 5 of this ToR (Description of and Rationale for Alternatives) describes how the proposed preliminary corridor was identified.

A corridor of 35 metres (m) in width, within the broader 2 km wide proposed preliminary corridor, is proposed for the Project to accommodate a permanent two (2)-lane gravel surface all-season road. Waterbody crossing structures, aggregate extraction and processing areas, construction camps and storage and laydown yards form part of the project components and are discussed further in this section.

Webequie Supply Road

Figure 4.1

Preliminary Preferred Corridor Resulting from Additional Webequie Community Engagement

WSR
WEBEQUIE SUPPLY ROAD

Winisk Lake
Eastwood Island
Webequie
Bender Lake
Prime Lake
Proposed Mining Development

Context Map

Preliminary Preferred Corridor for Webequie Supply Road

N
W E
S

0 2 4 6 8 km

Coordinate System: NAD 1983 Ontario MNR Lambert
Projection: Lambert Conformal Conic
Datum: North American 1983

Source: Esri, DigitalGlobe, GeoEye, Ear

4.1 Design Considerations and Criteria

Design considerations will be incorporated and evaluated in the EA, and will be aligned with the purpose of the Project. Alternative design considerations, such as those involving waterbody crossing structure types (i.e., culverts, bridges) and span lengths, road alignment and aggregate extraction areas will be evaluated based on site-specific environmental, technical and cost considerations, with input from Indigenous communities (e.g., Indigenous Knowledge), government agencies, the public and stakeholders. Further discussion on design alternatives for consideration, and the approach for their evaluation, is included in Sections 5 and 8 of this ToR.

Changes to the project design may be made to accommodate Indigenous community, government agency, public or stakeholder concerns, such as protection/avoidance of cultural or spiritual significant sites, sensitive traditional land use areas (e.g., hunting, gathering, trapping, etc.) and environmental features of importance that include, among others: Environmentally Sensitive Areas (ESAs), waterbodies, wetlands, rare vegetation communities or Significant Wildlife Habitat (SWH). WFN will document how design decisions were made in the context of the issues raised by other First Nation communities, provincial/federal agencies, the public and stakeholders.

Basic elements to be included in the road design, or that may be considered to mitigate potential environmental effects, include:

- Structure types (i.e., culverts, bridges), span length, lifecycle, and construction staging methods at waterbody crossings;
- Road attributes, including horizontal alignment, vertical alignment (elevation/profile) and adjustments to the cross-section and right-of-way (ROW) width of the corridor;
- Alternative sites for supportive infrastructure (i.e., temporary laydown and storage areas, construction camps, including access roads to these areas);
- Alternative sites for temporary and/or permanent aggregate extraction pits and production facilities needed for construction and operation of the road, including access roads to these sites; and
- Construction timing (seasonal) and staging along the ROW to minimize potential effects on the natural environment and traditional Indigenous land and resource use.

4.1.1 Preliminary Design Criteria

For the purposes of developing the preliminary design criteria for the WSR, a relatively low Annual Average Daily Traffic (AADT) volume of less than 500 vehicles has been assumed for the Project. The design standards for the WSR with respect to vertical curvature, maximum grade and minimum road shoulder width will adhere to those established by the Ministry of Transportation of Ontario (MTO) for provincial highways. The design speed for the WSR is 100 km/h, with an anticipated posted speed limit of 80 km/h.

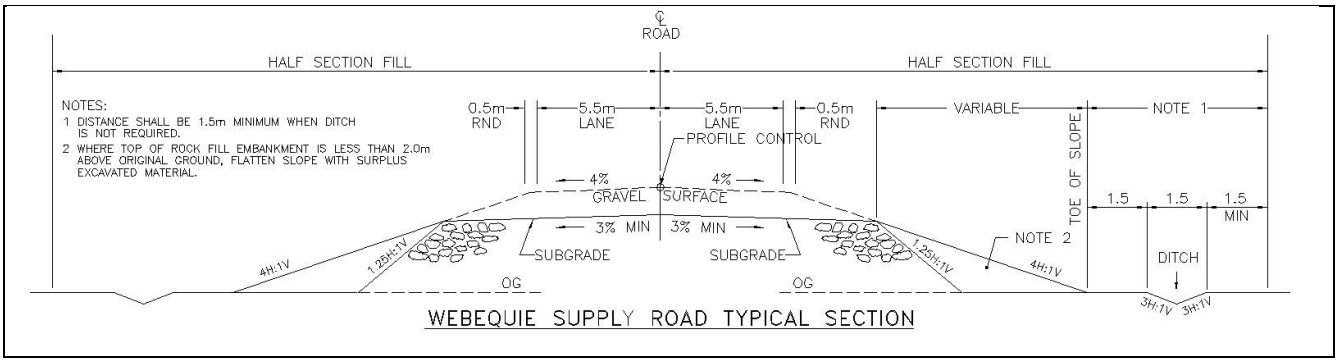
The road will be gravel surfaced, including shoulders, with material from aggregate source areas that have suitable sand and gravel deposits (e.g., eskers). The design of the underlying subgrade material and its depth below the granular surface of the road will have consideration for the typical vehicle types (e.g., light pick-up trucks, heavy commercial transport trucks and trailers, etc.) that are envisioned to use the road, including their weight/load.

For the purposes of drainage, the gravel surface of the road will have a cross-fall of 4%. All roadside ditches will be sized for the 25-year storm return period (probability of occurring once every 25 years). Culverts are to be a minimum of 600 mm in diameter, with 2% grade in the direction of flow. Culverts at watercourse

crossings will be sized to handle flow equivalent to the 100-year storm return period. Structural design for bridges and culverts exceeding a 3.0 m clear span at waterbody crossings will be carried out upon selection of a preferred road alignment and will take into consideration remote access constraints, material availabilities and the Canadian Highway Bridge Design Code.

A typical cross-section for the WSR is provided in **Figure 4.2**.

Figure 4.2: Typical Cross-Section for the Webequie Supply Road



Road intersections will be designed in accordance with Transportation Association of Canada (TAC) Geometric Design Standards and the MTO/TAC supplemental standards used for municipal roads and provincial highways. Road intersections, as well as other design elements, such as signage, illumination, and commercial/recreational entrances, will be considered in the detail design phase of the Project.

Roadside safety is paramount to the undertaking and, as such, the WSR will be designed in accordance with the MTO Roadside Design Guide (December 2017).

4.2 Components and Activities of the Project

The major components and activities for the Project are as follows:

- Field surveys and investigations to support the road design and EA, such as LiDAR survey, Ground Penetrating Radar (GPR) survey, geotechnical and environmental;
- Vegetation clearing and grubbing of road right-of-way and supportive infrastructure (access road, camps, laydown areas aggregate extraction areas);
- Road construction within an approximately 35 m right-of-way width over a distance of 107 km:
  - earth excavation and grading activities, including drainage ditches;
  - construction/installation of permanent culverts and bridges at minor and major waterbody crossings;
  - bridge multi-span waterbody crossings ranging in length from 20 m to 250 m;
  - bridge single-span or culvert waterbody crossings ranging in length from 5 m to 20 m;
  - placement, grading and compaction of aggregate material for roadbed;
- Construction of supportive infrastructure:
  - Storage and laydown yards;
  - Temporary access roads/trails;
  - construction camps;

- Development of aggregate extraction and production (crushing/processing) areas, including the transport and delivery of materials from source areas to the road ROW;
- Post-construction clean-up and site restoration;
- Road operation and maintenance:
  - Inspection and maintenance/repairs of road and structures at waterbody crossings, including emergency repairs;
  - Localized surface repairs and full granular resurfacing of road base and shoulder;
  - Winter maintenance – snow clearing and de-icing;
  - Management of vegetation/brush within the corridor;
  - Road drainage system – clean-out/repairs to culverts, ditches and outfalls or ditch inlet structures;
- Environmental effects and compliance monitoring during construction and operation phases.

4.3 Project Phases

Implementation of the Project will occur in phases. The potential interactions with the natural, cultural and socio-economic environments and the potential occurrence of residual impacts are anticipated to be different in each phase. In order to focus the impact assessment, the above key activities can be divided into the three main phases:

- **Construction Phase**: All the activities associated with the initial development of the road and supportive infrastructure;
- **Operation and Maintenance Phase**: All activities associated with operation and maintenance of the road and any other permanent supportive infrastructure (e.g., operation and maintenance yard, aggregate pits) that will be needed for the life of the road; and,
- **Decommissioning/Closure Phase**: All activities required to decommission/close the road. The Project will be operated for an indeterminate time period; therefore, retirement (or decommissioning) is not anticipated.

4.3.1 Construction Phase

The construction and commissioning of the WSR is expected to occur within an approximately 30-month period, after securing all the necessary approvals, permits, licences, authorizations and clearances to construct. Pre-construction activities will include field delineation of vegetation buffers and known nearby features of cultural or environment importance that may require specialized application of mitigation measures or monitoring during construction. Construction activities will continue year-round, with some construction activities being staged and implemented to avoid or minimize potential effects to Indigenous traditional land and resource use areas and/or culturally sensitive areas/uses, and life cycle periods of wildlife, such as avoiding the clearing of vegetation during the migratory bird nesting period.

The detailed construction staging and sequencing of the Project will be determined in the detail design phase through discussions between Indigenous communities and the construction contractor. Construction activities will typically occur during the working hours of 07:00 to 19:00 from Monday to Friday. However, regularly scheduled weekend work may be required to address schedule delays caused by weather or other unexpected conditions. Commissioning of the road for operation will occur shortly after construction is deemed substantially complete. The main construction activities that have the potential to affect the natural, cultural and socio-economic environments include the following:

- Field surveys, staking and layout;
- Vegetation clearing and grubbing;
- Construction of supportive temporary infrastructure that includes storage and laydown yards, access roads/trails, construction camps and aggregate extraction areas;
- Earth and aggregate hauling operations;
- Construction of the road, including waterbody crossings;
- Emissions, discharges and waste:
    - transport, handling and storage of fuel for equipment and vehicles;
    - handling and disposal of waste oil, lubricants and other fluid products used for the maintenance of equipment and vehicles;
    - storage, handing and disposal of solid waste generated at temporary construction camps/work sites and during operations and maintenance activities (e.g., construction waste, domestic waste, wood, cardboard, plastics, foods, metals, etc.);
    - management and/or disposal of wastewater and sewage both hazardous and non-hazardous, in the form of liquid effluent generated by the temporary workforce/construction camps;
    - air emissions from the operation of equipment and vehicles, including engine exhaust and dust generation;
    - greenhouse gas (GHG) emissions as result of the construction and operation of the Project;
    - noise emissions from equipment and vehicles;
    - sediment mobilization and discharges from earthwork activities; and.
- Post-construction clean-up and site restoration.

4.3.2 Operation and Maintenance Phase

During the operation and maintenance phase of the Project, activities such as the assessment of the condition and operating performance of the road surface, drainage system and structures at waterbody crossings will be conducted regularly along the road corridor. The objective of these routine inspections will be to ensure the road meets the minimum standards for roadside safety and is a reliable connection to allow for the movement of materials, supplies and people from WFN in support of mineral exploration and mine developments in the McFaulds Lake area.

The operator of the WSR is unknown at this time and is part of future discussions and agreement on the ownership and governance of the facility. However, it is expected that the designated operator of the WSR will develop specific operational and maintenance procedures and standards for the road that will be consistent with municipal and/or provincial guidelines for level of service. It is anticipated that the operating and maintenance activities to be conducted for the Project will include:

- Visual patrols and inspections of the road and structures (bridges/culverts) at waterbody crossings;
- Localized surface repairs and full granular resurfacing of road base and shoulder;
- Dust control;
- Control of vegetation/brush within the ROW;
- Winter maintenance – snow clearing and de-icing; and
- Road drainage system maintenance work – clean-out/repairs to culverts, ditches and outfalls or ditch inlet structures.

There will also be consideration of a number of road use controls that will be discussed between the Webequie First Nation and the Province of Ontario during the EA process. How these controls will be executed and enforced will be a function of road ownership and jurisdictional aspects of road operation. It

will be particularly important to clarify this for the portion of the roadway that will cross the Webequie First Nation Reserve lands, which fall under federal jurisdiction and are controlled by the First Nation. Some of the road control elements to be discussed include:

- Road access (who will be allowed to use the road and under what conditions);
- Access to and use of adjacent lands for traditional uses or other activities (e.g., mineral exploration, outfitters);
- Vehicle and operator licensing requirements;
- Insurance coverage requirements and general liability; and
- Enforcement/policing responsibility.

4.3.3 Decommissioning Phase

The Project will be operated for an indeterminate time period and decommissioning of the WSR is not anticipated. Should decommissioning activities eventually be considered for some or all project components, decommissioning will be planned and conducted in accordance with the relevant standards and regulatory requirements in effect at that time. If decommissioning activities are required, a detailed review of the potential environmental effects and mitigation measures will be conducted. Consideration of the permanency or temporary nature of supporting infrastructure will be incorporated in EA process. In addition, a description and consideration of project lifecycle phases (i.e., pre-construction, decommissioning, maintenance and monitoring) will be addressed within the EA.

5 Description of and Rationale for Alternatives

This section of the ToR provides a description of how and why project alternatives were developed, and a comparative screening of the alternative corridors considered to arrive at the corridor within which alignment options (alternative methods for implementing the undertaking) will be considered to select the preferred option for assessment in the EA Study and for more detailed engineering investigations and design development.

5.1 Range of Alternatives Considered

The Ontario EA process requires that two types of project alternatives be considered: "alternatives to" the undertaking (i.e., functionally different ways of addressing an identified problem or opportunity to arrive at the preferred planning solution) and "alternative methods" of carrying out the undertaking (options for implementing the preferred planning solution).

5.1.1 Alternatives to the Undertaking

The range of "alternatives to" the Project (i.e., functionally different ways of approaching the opportunities identified by Webequie First Nation to improve the community's economic and social well-being) was limited by the primary objectives of the Project, as determined by Webequie First Nation:

- Establish an all-season corridor that will facilitate the movement of materials, supplies and people between the Webequie Airport and the mineral exploration and proposed mine development activities in the McFaulds Lake area of Northwestern Ontario (specifically, the camps, the drilling/exploration projects and, in the future, mining facilities);
- Provide enhanced employment and other economic development opportunities to Webequie community members, while also allowing them to continue to reside in or around their community's traditional territory, engage in traditional uses of that land, and preserve their language and culture; and,
- Provide experience/training opportunities for youth to help encourage pursuit of additional skills through post-secondary education.

For transportation projects, alternatives to the undertaking typically include such options as new or improved roads; new or improved rail service, air service or public transit service; the introduction of alternative means of transportation for goods movement (e.g., airships and hoverbarges in this case); or managing travel demand to influence how and when trips are made, or to modify/reduce the need for travel by encouraging the use of alternatives to trip making (e.g., telecommuting, videoconferencing, providing more medical services locally, providing more electronic access to training opportunities). Options also include the null or "Do nothing" alternative.

For the purposes of this assessment, the following alternatives to the undertaking have been examined:

1. Do nothing
2. Upgrade the existing trail system to seasonal winter road
3. Alternative modes of transportation (hoverbarge, airship, rail)
4. Manage travel demand
5. New all-season road

5.1.1.1 Do Nothing – Null Alternative

The null (or status quo) alternative provides a benchmark against which other alternatives can be compared, from a variety of perspectives, including cost/value, environmental effects, social and economic benefits, etc. If the null alternative proves to be the preferred alternative, there would be no undertaking and environmental assessment approval would not be required. This would limit transportation options between Webequie First Nation and the McFaulds Lake area to only the existing seasonal ground connections provided by a series of informal winter trails, and air connection between the Webequie Airport and the air strip at Noront Resources' Eagle's Nest mine.

Although this alternative would result in the lowest capital and operating costs, and the lowest natural environmental effects of all alternatives considered (as there is no project), it does not address the stated primary purpose, which is to provide a cost-effective and sustainable means of delivering goods and services from the Webequie community/airport to support and participate in mineral exploration activities and proposed mine developments near McFaulds Lake and thereby provide economic and employment opportunities to the community. In this scenario, there would be an imputed loss of social and economic benefits to the Webequie First Nation.

For these reasons, the Do nothing alternative will not be included for further consideration, except for the purposes of assessing the overall advantages and disadvantages of proceeding with the preferred method of implementing the Project (refer to Section 8 - Approach to Assessment and Evaluation of Effects).

5.1.1.2 Upgrade Existing Trail System to Seasonal Winter Road

The existing trail system between Webequie First Nation and the McFaulds Lake area is largely only passable for the entire distance during the coldest winter months[2]. During the other seasons of the year, the trail system is interrupted by intermittent waterbodies, watercourses and large-scale wetlands (muskeg). In addition, the existing trails are narrow and suitable only for snowmobile access. They would have to be upgraded to current provincial standards/specifications for winter roads to facilitate heavy vehicles, such as transport trucks. The seasonal lifespan of the winter road could be lengthened marginally by the addition of permanent bridge/culvert structures across the larger watercourses that tend to open up soonest in the spring.

Upgrading the existing trail system to a winter road would have the advantages of lower capital and maintenance costs and somewhat lower and less permanent environmental effects than an all-season road, but would not return the same social and economic benefits to Webequie community members, as there would not be the opportunity to provide goods and services to the camps and facilities in and around McFaulds Lake throughout the year. Other disadvantages of a winter road connection include:

- Operational period limitations (winter road would only be operational for 5 to 8 weeks a year, depending on weather) and uncertainties (climatic vagaries) resulting in lower levels of reliability and overall economic activity;
- The majority of watercourse crossings will be directly over ice and snow, resulting in environmental impacts;

[2] A Nishnawbe Aski Nation media release at the time of the opening of the Wa-Pik-Che-Wanoog Bridge on the North Caribou segment of the Northern Ontario Resource Trail all-season road stated that "with a changing environment, commercial traffic on winter roads has been open for as few as 28 days in recent years; a significant reduction from 77 days a decade ago."

- Slower travel speeds than an all-season road, resulting in higher delivery costs; and
- Restrictions on the range of vehicle types, including heavy transport trucks.

Because the purpose of the supply road is to facilitate the safe and reliable transportation of goods and services between the Webequie Airport and existing mining exploration and future mine operations activities in the McFaulds Lake area, the limitations/disadvantages of an all-season road are not considered significant enough to offset the benefits of an all-season road.

For these reasons, this alternative will not be considered further in the EA/EIS process.

5.1.1.3 Alternative Modes of Transportation

Three (3) alternate modes of transportation were evaluated – hoverbarge (hovercraft); heavy lift airship (dirigible); and a new rail corridor.

Hoverbarge

Hovercraft technology has had a considerable and successful history, primarily in military and first response applications. The technology is uniquely suited to accessing rugged terrain and delivering cargo and people to isolated locations, and models have been developed for cold weather application (refer to **Figure 5.1**).

Figure 5.1: 200t Cold Weather Heavy Lift Hoverbarge (2009)

Sources: Marinelink.com and Hover Freight Air Cushion Systems

There are many general advantages of hovercraft:

- They can be assembled in a modular format at site or can be flown assembled to site (depending on size and weight and the design characteristics of the runway);
- They operate on conventional diesel fuel; operating costs are much lower than conventional aircraft and lower than transport trucks;
- They can access all terrain types, allowing all-season operations, although it is unclear if the technology has been proven on the range of terrain found between the James Bay Lowlands and the upland areas around Webequie;

- The hovercraft landing system, with "suck down" capability, allows for multi-surface operation and load transfer on land, water, ice and snow, while roll-on-roll-off (Ro-Ro) cargo loading/unloading capability facilitates heavy load operations;
- No substantive infrastructure is required for Ro-Ro operations;
- No direct impact to the environment, as they exert a ground pressure of 2.0 KPa or 0.33 pounds per square foot (less than the human foot); and
- Some craft can be operated as either passenger or cargo payload, providing some flexibility in application.

However, there are concerns/disadvantages to hovercraft technology that reduce its attractiveness for use on this project:

- Higher payload vehicles or hoverbarges (most typically with a payload of up to 50 tonnes) are rare in the marketplace and largely untested in commercial applications;
- At 50 tonnes, the payload of a hoverbarge is similar to that of a conventional 18-wheel transport truck. A comparable fleet of hoverbarges has never been commercially attempted;
- A cleared road/runway is required that must be kept clear of vegetation, although the specification and cost to maintain a corridor for hoverbarge is likely slightly less in comparison to a winter road and far less than an all-season road; and
- There is currently no company that is commercially manufacturing heavy lift hoverbarges; those companies that have in the past are no longer in operation.

One of the biggest advantages of this technology is that it can extend the life of a winter road into the warmer months of the year without having to build the road to the higher specifications of an all-season road. Conventional transport trucks could be used to supplement the hoverbarges in the winter months (operating season of the winter road), and the hoverbarges could continue providing service the remainder of the year. Alternatively, the conventional transport truck fleet could be entirely replaced by the similar payload hoverbarges to avoid duplication and redundant operating costs.

However, despite some advantages, overall, the lack of proven technology, particularly in terrain similar to the project area, unproven commercial-scale operations and the lack of manufacturers, makes this an uncertain and unreliable choice over more conventional modes of transportation. In addition, although direct impacts would be very low once in operation, and operating costs are expected to be lower than conventional transport trucks and aircraft, the technology requires a cleared road equivalent to a winter road, resulting in similar environmental effects to the winter road alternative.

Heavy Lift Airship (Dirigible)

The dirigible was used in the 1930s and 1940s as an alternate mode of transportation to conventional aircraft. These 'lighter than air' ships were typically filled with a combination of helium and hydrogen. The infamous Hindenburg disaster, which resulted in loss of human life when the hydrogen ignited, resulted in the demise of the airship. However, in recent years, with advanced aerospace technology, the airship has enjoyed a resurgence, with several companies taking prototypes to commercial production. Now filled primarily with helium, the risk of combustion has been eliminated. In addition, the technology has been advanced, making modern airships 'heavier than air', which means they can be loaded and unloaded at ground level, eliminating the need for specialized mooring and loading/unloading infrastructure (refer to **Figure 5.2**). In addition to reducing costs and increasing practicality, this has also extended the range of terrain that can be accessed by the airships.

Figure 5.2: Lockheed Martin LMH-1 Hybrid Heavy Lift Airship

Source: Gasworld.com and Lockheed Martin

Although prototype heavy lift airships are achieving over 1,000 tonnes of payload (making them equivalent to sea borne cargo ships), most airships that are at or close to commercial production are achieving between 50 and 200 tonnes of payload. Fifty (50) tonnes of payload is equivalent to a conventional transport truck.

Unfortunately, similar to the hoverbarge, the heavy lift airship remains largely unproven commercially. Although some manufacturers report that orders have been placed, there is, as yet, no commercially operational fleet anywhere in the world. This may change over the next several years as orders become operational airships.

There are a number of advantages to heavy lift airships over alternative modes of transportation:

- Airships are far more fuel-efficient than conventional aircraft, which must constantly burn jet fuel to stay aloft;
- Costs are 80-90% less than equivalent payload aircraft to purchase and operate; operating costs are similar to transport trucks and rail (point to point);
- 'Heavier than air' technology removes the need for mooring and loading/unloading infrastructure; and
- No formal access roads are required between loading/unloading points.

Although the advantages of airships are attractive, the small payload of models that are close to or in commercial production are small. The lack of a proven commercial track record also remains a concern.

New Rail Corridor

There is currently no rail service between Webequie and the McFaulds Lake area and, historically, private sector proposals for serving the area have focused on a north-south connection between the Ring of Fire area and the national (CN Rail) corridor at Nakina (Northern Policy Institute, 2015). Similar to the hoverbarge option, a new rail right-of-way would have to be cleared (and maintained) through a "greenfield" environment. Further, establishing the infrastructure for such service is not aligned with provincial development plans and policies for the area under consideration (including lack of a connection to any existing or proposed rail network – refer also to Section 5.1.1.7 below); would not be cost-effective (primarily due to the capital cost of constructing the line over steep terrain and thick peat deposits); and is considered beyond the financial means of Webequie First Nation under current and prospective funding agreements.

For these reasons, a heavy rail connection will not be carried forward for further consideration in the EA process.

5.1.1.4 Manage Transportation Demand

Travel demand management mechanisms, such as modifying or reducing the need for travel by encouraging the use of alternatives to trip making (e.g., telecommuting, videoconferencing, providing more digital access to training opportunities), are deemed to be an auxiliary benefit of any long-term plan for introducing a corridor within which enhanced communications technology (broadband) can be installed.

Therefore, under the right circumstances, this alternative could be implemented in combination with a road and within the same timeframe.

5.1.1.5 New All-Season Road

For application to this project, an all-season road is a conventional road, similar to those within the provincial highway network, which can be designed to different specifications depending on the type and volume of traffic using it and the cargo to be hauled from point to point.

From a technical perspective, an all-season road between Webequie and the McFaulds Lake area would have a number of general disadvantages compared to a winter road:

- Significantly higher capital and operating costs;
- Requires major planning, engineering and environmental review; and
- More costly to rehabilitate at closure.

However, there are a number of advantages to an all-season road that offset the disadvantages of a seasonal winter road:

- Provides services year round, resulting in more reliable passenger travel and delivery of goods and services to the mining explorers and operators in the McFaulds Lake area;
- Higher design standards, resulting in higher traffic speeds, accommodation of a wider range of vehicle types (including heavier trucks), and lower delivery costs;

- Less significant environmental effects to permanent watercourse crossings due to less frequent disturbance;
- Higher level of safety for travellers; and
- Increased overall economic activity, resulting in greater social and economic benefits to the Webequie community and others that participate in road development and the delivery of goods and services.

5.1.1.6 Preferred Planning Alternative

As discussed in the preceding report sections, a number of different alternatives were assessed for meeting the project objectives. Having considered the balance of advantages and disadvantages of each alternative, the preferred alternative is the construction of a new an all-season road between Webequie and the McFaulds Lake area.

Heavy lift airships and hoverbarges are not considered to be proven technologies and costs are somewhat uncertain, although likely comparable to transport truck haul costs. Current models of both technologies have limited payloads that would necessitate having a fleet of vehicles to provide comparable payload to a fleet of transport trucks. Although the heavy lift airship has the advantage of not requiring a cleared corridor, the hoverbarge would require clearing and corridor maintenance similar to that of a winter road. Overall, these technologies are not preferred.

The other modal alternative (rail) is also not preferred, primarily due to its cost and lack of a connection to any existing or proposed rail network.

In comparing a winter road to an all-season road, the all-season road option is preferred. Although it will result in higher capital and operations/maintenance costs, an all-season road will provide a safer and more reliable means of transporting goods and services throughout the year. This will maximize economic development opportunities, which, in turn, will maximize social and community benefits. There will be environmental effects resulting from the construction and operation of both types of road. Some argue that the recurring effects of annual construction of a winter road could be cumulatively greater than the initial construction impacts of an all-season road and the lesser ongoing impacts during operations. However, significant environmental effects of either type of road can be avoided through proper routing/alignment selection and/or can be sufficiently managed with mitigation to avoid significant effects.

One of the greater potential effects of an all-season road will be the development of aggregate supply sources. These impacts, and other impacts associated with construction and operation of an all-season road, will be examined in detail during the environmental assessment process.

Travel demand management mechanisms, such as modifying or reducing the need for travel by encouraging the use of alternatives to trip making, are deemed to be an auxiliary benefit of any long-term plan for introducing a corridor within which enhanced communications technology (broadband) can be installed, and can be implemented in combination with the supply road.

In addition to the foregoing rationale, developing a new all-season road between Webequie and the McFaulds Lake area is deemed to be the most reasonable alternative for the following reasons:

1) It best addresses the project purpose and objectives, as stated by Webequie First Nation, including providing new and enhanced opportunities to improve Webequie's economic and social well-being; and

2) Given current and projected available resources (people and financing), it is the likeliest alternative to be within Webequie's technical and economic abilities to implement.

The selected planning alternative is also consistent with provincial government plans and policies for growth and development in the region, including the Ring of Fire area, as discussed in Section 1.4.

Therefore, in keeping with the focussed approach to the EA, the preferred planning alternative (developing a new all-season road) has been carried forward to the initial consideration of alternative methods of carrying out the undertaking, which are addressed in Section 5.1.2 of the ToR. The Do Nothing option will also be carried forward as a comparator in the EA study for the purposes of assessing the overall advantages and disadvantages of proceeding with the preferred method of implementing the Project.

5.1.2 Alternative Methods of Carrying Out the Undertaking

5.1.2.1 Background and Context

Before discussing alternative methods considered for implementing the all-season Webequie Supply Road Project, it is important to understand the background of the various road/transportation studies that have been conducted in the Webequie First Nation/McFaulds Lake region over recent years to provide the context for the development and analysis of the Webequie Supply Road options. All of these studies have contributed to the rationale for and initial identification and assessment of the Webequie Supply Road options.

Noront Resources Eagle's Nest Mine Access Road

In 2013, Noront Resources completed a draft Environmental Assessment/Environmental Impact Statement for their proposed Eagle's Nest nickel/copper/platinum mine in the McFaulds Lake area. As previously noted, the Noront draft EIS/EAR was not completed, nor was it circulated to provincial agencies for comment, but comments from federal agencies were received by Noront. At present, the EIS/EAR is on hold/pause until there is more certainty about a potential all-season road. The Noront environmental assessment examined access alternatives, as follows:

- Alternative road routes that would connect the mine to the provincial highway system:
  - North-South connection through Nakina via Highway 584;
  - Eastern connection to the DeBeers Victor diamond mine; potential port facilities at the Attawapiskat First Nation; and connection to the James Bay coast winter road, with connection to rail facilities in Moosonee; and
  - East-West connection to the Pickle Lake Road (previously Highway 808) and Highway 599 near Pickle Lake.

This analysis identified few advantages of the Eastern connection to the Attawapiskat First Nation and the James Bay coast winter road over the more significant advantages of the East-West and North-South road options. The comparative analysis of the East-West and North-South alternatives identified the Pickle Lake/Highway 599 connection near Pickle Lake, Ontario as the preferred route for several key reasons:

  - Interconnection to a trans-modal transportation facility with rail interconnection, at Savant Lake, for transportation of concentrate to processing facilities located in the south;
  - Overall lower costs and shorter construction period;

- Potential for several First Nations to connect to the road, providing interconnection to the provincial highway system, the end of geographic isolation and potential economic development opportunities;
- Fewer major watercourse crossings (lower cost and potential environmental effects); and
- No traversing of provincial parks.

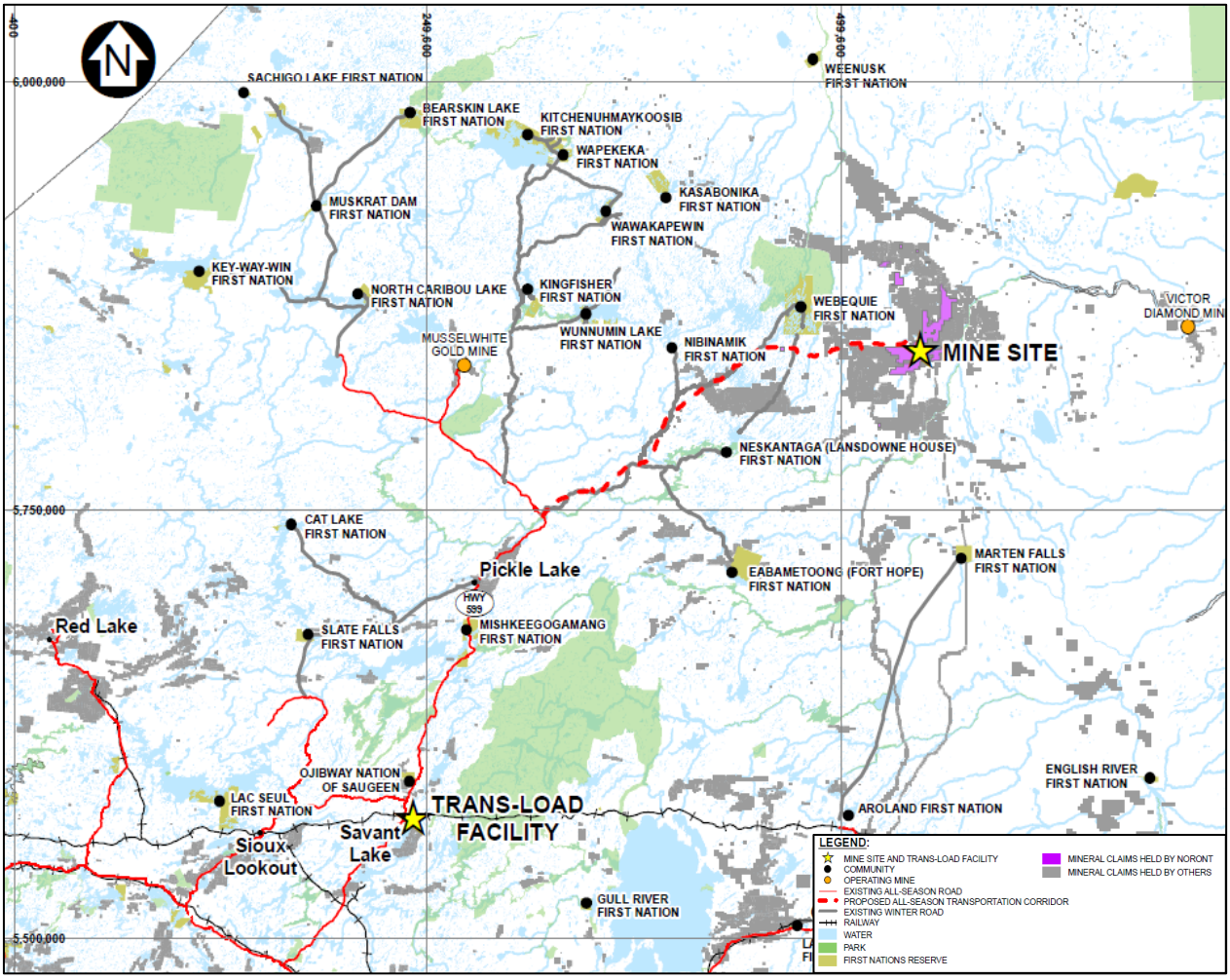
- Alternative road types between Eagle's Nest and Highway 599/Pickle Lake Road were considered:
  - All-season road;
  - Combined winter road/all-season road;
    - Winter road connection between Eagle's Nest and Webequie Junction south of the Webequie First Nation;
    - All-season road between Webequie Junction and Pickle Lake Road/Highway 599;
    - Slurry pipeline between Eagle's Nest and Webequie Junction to transport concentrate to load-out facilities at Webequie Junction.

An all-season road connecting to the Pickle Lake Road (previously Highway 808), connecting to a trans-modal load-out facility on Highway 599 near Savant Lake, Ontario, at the CN Rail corridor, was selected as the preferred alternative for the following reasons:

- Capacity to accommodate higher truck traffic volumes along the entire roadway throughout the year than winter road only, or winter road/all-season road combination;
- Lower environmental effects as a result of permanent structures, compared to annual construction disturbance with a winter road; and
- Higher reliability for concentrate haul and the delivery of goods and services.

In identifying route alternatives for the Eagle's Nest mine access road, it was intended to maximize use of existing winter road corridors to minimize additional clearing and environmental effects. The preferred alignment was selected by optimizing constructability, environmental effects and costs. Following the existing winter road alignment, with some revisions to enhance constructability, is considered a significant advantage over the establishment of a new corridor. The preferred all season road corridor identified in the 2013 EIS/EAR is shown on **Figure 5.3**. As noted previously, the EIS/EAR for Noront's Eagle's Nest Mine project is on hold and, when reactivated, will exclude consideration of an all-season road connection to the provincial highway network, as it has been assumed that this will be developed by others based on the Province of Ontario's pledges of funding for infrastructure (mainly roads) in the Ring of Fire area. The current status of the Eagle's Nest Mine project can be found on Noront's website (http://norontresources.com).

Figure 5.3: Noront 2013 Proposed Eagle's Nest All-Season Transportation Corridor



Source: Noront Eagle's Nest Project Federal/Provincial Environmental Impact Statement/Environmental Assessment Report – Executive Summary (Draft Copy) (Noront, December 20, 2013)

In addition to providing the least cost, least impact route from Highway 599/Pickle Lake Road into the Eagle's Nest mine site, with the addition of connecting community lateral access roads, the selected mine site access road also provided potential all-season access to the provincial highway system for Webequie First Nation and other First Nations proximate to the proposed road, including the Nibinamik, Neskantaga and Eabametoong First Nations.

From the Webequie First Nation perspective, this corridor provided community benefits. The community would have all-season access to the provincial highway system with the addition of a community lateral connection from the Webequie Junction directly north to the Webequie reserve lands and the airport. In addition, the community would have potential year-round economic development opportunities related to the transportation of goods and services between the Webequie Airport and the Eagle's Nest mining facility.

Cliffs Ferroalloys Black Thor Mine Integrated Transportation System

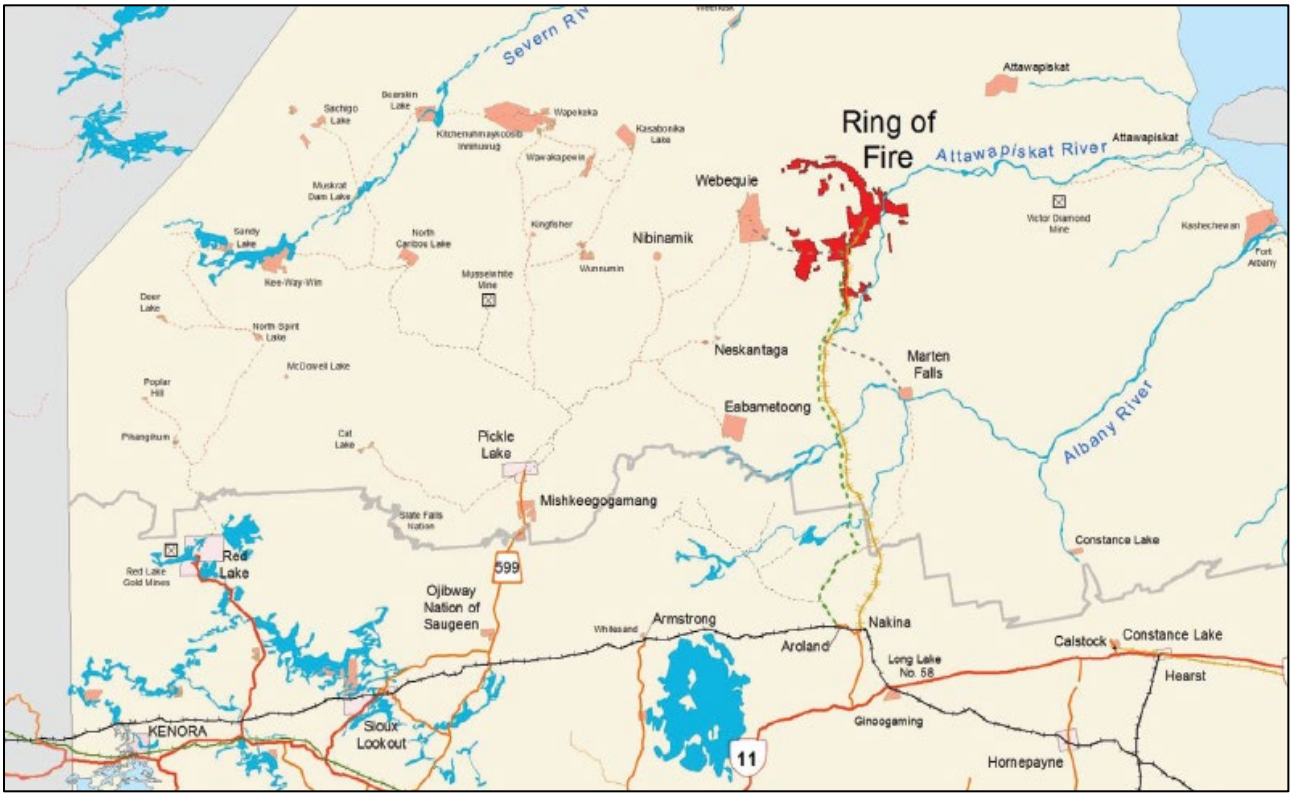
In 2011, Cliffs Natural Resources, later referred to as Cliffs Ferroalloys ("Cliffs"), announced its intention to move forward with permitting and development of the Black Thor Chromite Mine in the McFaulds Lake Ring of Fire area, a very large and promising mineralized zone proven to contain high grade ferrochrome deposits.

However, by 2015, citing many regulatory, financial and logistical challenges, Cliffs removed itself from further development of their Ring of Fire project. Interests in the Cliffs properties were sold to Noront Resources.

Prior to the sale, Cliffs had conducted a number of studies as part of its Environmental Impact Statement and Environmental Assessment process. From those studies, Cliffs developed an Integrated Transportation System (ITS) that optimized all-season road connection of the Black Thor mine assets and facilities with the provincial highway system and the CN Rail system at Highway 584 near Nakina, Ontario (refer to green dashed line in **Figure 5.4**). The all-season road option was preferred over a heavy rail system from a cost, constructability and First Nations community benefits perspective. The corridor for the all-season road was selected following optimization that minimized constructability challenges, minimized costs, and minimized environmental impacts, while providing potential opportunities for First Nations connection to the provincial highway system at Nakina.

Around the same time, KWG Resources (KWG), a junior mining company that is also active in the McFaulds Lake area, studied transportation options into the Ring of Fire area and identified a preference for a rail/road link that followed a similar corridor to the Cliffs proposed road corridor. The KWG preferred rail/road option (yellow hatched alignment) is also shown in **Figure 5.4**. The KWG rail/road option has never been examined through a provincial or federal environmental assessment process.

Figure 5.4: Cliffs Ferroalloys Proposed All-Season Road Route to Highway 584 and KWG Resources Proposed Rail/Road Route to Nakina



Source: "Roads, Rail and the Ring of Fire": Commentary No. 7. Northern Policy Institute (October 2015).

Although now in control of the Cliffs Black Thor chromite project, Noront confirmed their selection of an all-season road along the East-West corridor between Highway 599/Pickle Lake Road and their proposed Eagle's Nest copper/silver/gold mine at McFaulds Lake, largely following the existing winter road alignment, for all the reasons discussed above. One of the most important considerations was that the East-West corridor would provide potential for more First Nations to potentially benefit from a connection to the provincial highway system.

From the Webequie First Nation perspective, the preferred ITS selected by Cliffs did not include winter road or all-season road connection to the Webequie First Nation, thereby limiting the potential for the community to transport goods and services between the Webequie Airport and the Black Thor mine; and also limiting the potential for connection to the provincial highway system at Nakina. It should be noted that the Cliffs EA study was not complete when Cliffs sold its interests to Noront Resources. A Webequie connection could very well have been added during the ongoing environmental assessment process (had it continued), as could further negotiations with Webequie regarding their participation and involvement in the Black Thor project.

Winter Road Re-Alignment Study (2008)

On behalf of four First Nations (Marten Falls, Eabametoong, Neskantaga, Nibinamik and Webequie), the Matawa First Nations Tribal Council commissioned a study to examine realigning selected sections winter roads for approximately 200 km, with particular attention to addressing safety, environmental and

operational issues related to major water/wetland crossings, steep hills, sharp curves and other deficiencies and sensitivities. The work included the following scope:

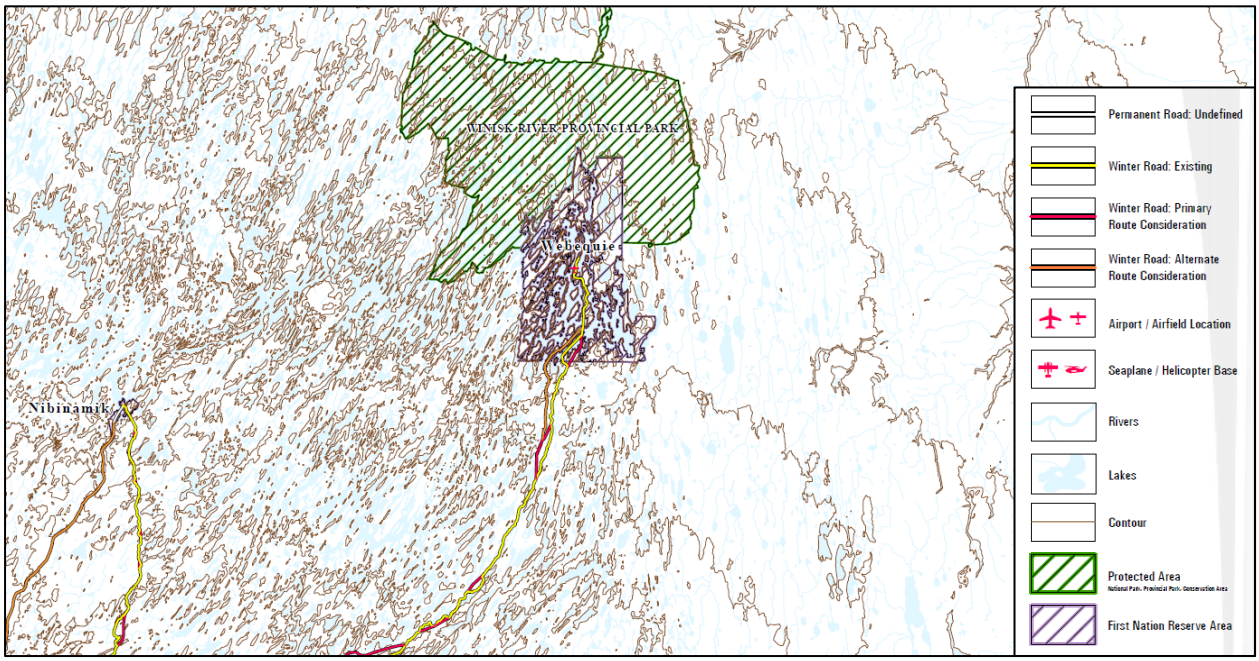
- Realignment of the full length of the Marten Falls winter road to follow a route along the east side of the Ogoki River (approximately 120 km);
- Realignment of the existing Eabametoong winter road to circumvent Opikeigen Lake and Ozhiski Lake (approximately 67 km);
- Realignment of the Neskantaga winter road to circumvent the western crossing of Kabania Lake (approximately 13 km);
- An assessment of the improvement needs for the entire winter road systems for all five First Nation communities in the study area (approximately 675 km), including the identification and assessment of additional areas for potential realignment; and
- Consideration of upgrading standards to all-season roads, where applicable.

Figure 5.5 shows the winter roads under consideration in the vicinity of the Webequie Supply Road study area.

The study included extensive consultation with the First Nations, regulatory agencies and other stakeholders (e.g., forestry companies and outfitters). Based on the consultation program results and completed assessments, alternative solutions to identified deficiencies in the winter road system included: improvements to winter road standards, (i.e., realignment, widening, crossing improvements), including the development of engineering design criteria related to traffic volumes, operating speeds, lane configuration and vertical and horizontal alignment constraints; or upgrading of the roads to all-season standards (i.e., realignment to higher ground (along eskers) and construction of permanent structures at water crossings).

The study results also included cost estimates for the construction of 332 km of winter road realignment, constructed to all-season road standards ($75,000 - $200,000 per kilometre, yielding total costs of $35,754,000 for road work and $16,850,000 for construction of permanent bridge structures).

Figure 5.5: Matawa Winter Road Realignment Study - Webequie Local Study Area



Source: Winter Road Realignment Study (Draft). Neegan Burnside Ltd., 2008.

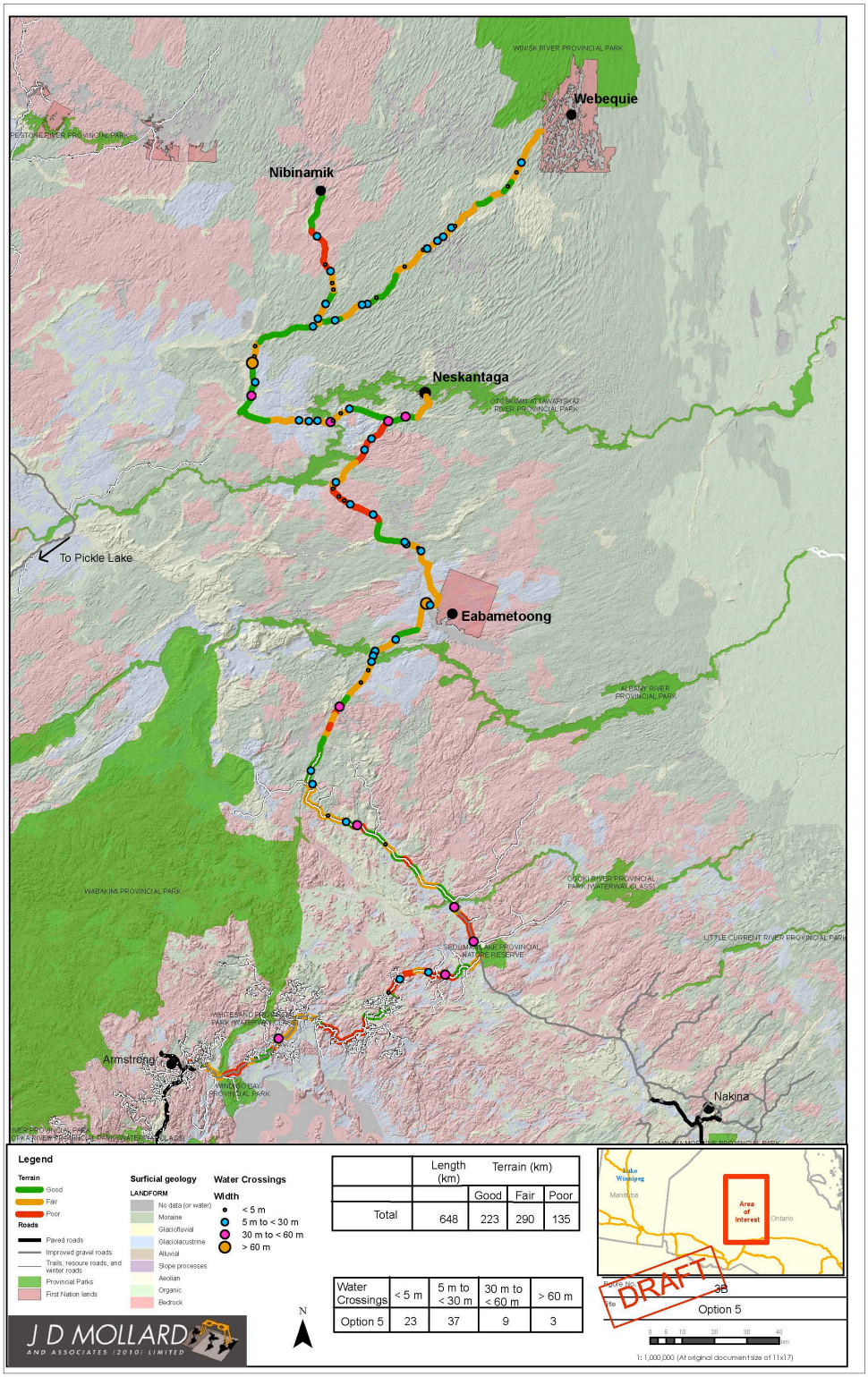
All-Season Community Road Study (2016)

Webequie was one of four First Nations that directed the All-Season Community Road Study (ASCRS) that was completed in June 2016. Neskantaga, Nibinamik and Eabametoong were the other participating First Nations. The purpose of this study was to examine options for interconnecting these First Nations communities to the provincial highway system for the purposes of providing community social and economic benefits.

Many alternatives were examined, including those previously preferred by Noront Resources, Cliffs and KWG Resources. In addition to previously identified alternative corridors, the four First Nations chose to examine other alternatives that prioritized inter-community connections, minimized environmental impacts and maximized community benefits.

Following community engagement and multi-criteria assessment, a preferred corridor was identified for further study. The preferred corridor, shown on **Figure 5.6**, generally followed an east-west orientation and included input from First Nations land users to avoid areas of cultural and environmental significance.

Figure 5.6: All-Season Community Road Study - Preferred Alternative



The preferred corridor/road coming out of the 2016 ASCRS did not connect to the McFaulds Lake area due to unresolved issues and concerns expressed by some participating First Nations about mining development in the Ring of Fire area.

From the Webequie First Nation perspective, the preferred alternative emerging from the 2016 ASCRS provided a number of social and economic benefits to community members as a result of connection to the provincial highway system and interconnection with other First Nations communities. However, there was additional interest in continuing to examine a supply road connection into the McFaulds Lake area, separate from the ASCRS options, and building on studies being conducted by Noront Resources. This connection between Webequie and McFaulds Lake is considered important to Webequie First Nation, as it could provide the community with economic development opportunities and community economic and social benefits above and beyond the benefits of an all-season community road to Pickle Lake.

All-Season Community Road Study – Phase 2 (2017)

In 2017, the Nibinamik and Webequie First Nations continued the ASCRS on their own, to refine the preferred corridor analysis from the previous phase of the study (largely within their own traditional territories) and to continue with community engagement. The ASCRS – Phase 2 investigations involved many discussions with Nibinamik and Webequie land users, elders and youth to refine the corridor centreline and to determine support for an east-west connection to the provincial highway system at the Pickle Lake Road. The Phase 2 study also included more extensive data collection, including field studies and gathering of more Indigenous Knowledge information. This additional information, together with input from community members, was used to identify a refined east-west all-season road corridor, which is has essentially the same purpose (connection of Webequie and Nibinamik to the provincial highway system at Pickle Lake.

In addition to defining a refined corridor, it was determined during Phase 2 that there is reasonably strong support for an all-season community road connection to the provincial highway system, but not clear and full community support for interconnection of the all-season road to mining activity in the McFaulds Lake area.

From the perspective of the Webequie First Nation, there was general community and political support for an all-season community road to the provincial highway system at the Pickle Lake Road. However, there was concern that the discussion of the all-season road did not include an extension from the community eastwards to McFaulds Lake, which was thought to provide potential for economic development opportunities with mine exploration and future mining operations.

Table 5-1 provides a chronological summary of the foregoing studies and other decisions that have supported and led to the development of the Webequie Supply Road proposals.

Table 5-1: Chronological Summary of Development of Webequie Supply Road

Activity/Date/Status	Summary of Results/Decisions
Cliffs Ferroalloys Black Thor Chromite Mine, McFaulds Lake, Ontario **Ontario EA** Designation (voluntary agreement): granted Date submitted: June 2, 2011 Decision date: August 5, 2011 Terms of reference: Submitted Date submitted: July 27, 2012 Expiry of public comment period: August 26, 2012 - Terms of reference (amended): Submitted Date submitted: January 25, 2013 _____ **Federal EA - CEAA** McFaulds Lake (Ontario) Reference Number: 63927 Federal Responsible Authorities: Fisheries and Oceans Canada, Natural Resources Canada and Transport Canada Proponent: Cliffs Natural Resources Inc. Environmental Assessment Commenced: September 22, 2011 Environmental Assessment Type: Transitional Comprehensive Study Status: Environmental assessment terminated prior to completion	Cliff's started its EA in June 2011. During the engagement and consultation process, Cliffs asked Webequie FN if it would consider being a proponent for a "secondary winter road, possibly, a future secondary all-season road" from Webequie FN's airport to the proposed mine site. At the time, it was believed by Cliffs that the Winter Road from Marten Falls FN to the proposed mine site was "untested terrain" and that Cliffs needed a "secondary Winter Road" in the event of a winter road breakdown during the mobilization of equipment and material at the pre-construction stage over the north-south Winter Road, then Cliffs would have secondary Winter Road from Webequie FN's airport. Cliffs was willing to pay for the construction and maintenance of the secondary winter road. Cliffs had a conceptual route for the secondary winter road and came up to Webequie FN in a helicopter to fly over the conceptual route with Webequie FN landusers and councillors and a new conceptual route was identified after the flyover from Webequie FN airport to the proposed mine site. This is one of the reasons why Webequie FN decided to do an Airport Re-Development project so that it can capture economic development opportunities associated with the road to the proposed mine sites.
Noront Eagle's Nest Nickel-Copper-Platinum Mine, McFaulds Lake, Ontario **CEAA/Ontario EA Act** Project Description: Submitted April 2011 Ontario Terms of Reference (amended): Submitted October 2012 CEAA Environmental Impact Statement Guidelines: Issued January 2012 Draft EIS/EAR: Submitted December 2013 (response issued by federal agencies; no comprehensive formal response issued by provincial agencies) Amended Terms of Reference: Approved 2015	Noront Resources engaged Webequie First Nation to help identify a preferred alignment for an east-west transportation corridor running from Eagle's Nest Mine to the Pickle Lake area. Webequie assumed the responsibility for identifying a preferred alignment through their territory from Noront and, in doing so, conducted their own internal process of consulting with their community members. A preferred corridor alignment was identified and was subsequently used in the Webequie Community Supply Road Baseline Environmental and Geotechnical Studies Project (2017-18) to help form the preliminary preferred corridor for subsequent further review as part of the Webequie Supply Road Environmental

Activity/Date/Status	Summary of Results/Decisions
Status: EA has been paused. Noront will apply to modify its TOR when work (by others) on an all-season road connection between the mine site and the provincial highway network is sufficiently advanced.	Assessment and Preliminary Engineering Project (2018 - ongoing).
All-Season Community Road Study (ASCRS) 2015-16	Study initiated by four communities in the Ring of Fire region (Eabametoong FN, Webequie FN, Nibinamik FN, Neskantaga FN) to gauge community interest and investigate route options (10 km wide corridors) for connecting the communities to the provincial road network. Nine corridor options were identified and evaluated in detail on the basis of many factors, including: construction cost, ease of connection between neighbouring communities, driving distance and terrain. Two communities, Neskantaga FN and Eabametoong FN, chose not to continue further with the planning process, while (approximately 6 months after completion of the ASCRS) Webequie FN and Nibinamik FN decided to continue the process via the Nibinamik-Webequie Community Road Baseline Environmental and Geotechnical Studies.
Nibinamik-Webequie Community Road Baseline Environmental and Geotechnical Studies (2017-18)	Nibinamik and Webequie FNs participated in baseline environmental and geotechnical studies along a preferred route linking the two communities with the provincial road network near Pickle Lake. Upon completion, Nibinamik FN decided it was not yet ready to proceed further with the planning process, while Webequie FN shifted its focus to baseline environmental and geotechnical studies for a supply road connecting the community with the McFaulds Lake mineral exploration area.
Webequie Community Supply Road Baseline Environmental and Geotechnical Studies (2017-18)	Project began with Webequie community-only meetings of various groups (i.e., youth, elders, land harvesters) to identify a preliminary preferred 2 km corridor alignment. Community members focused almost exclusively on the alignment of the north-south portion of the corridor, as they stated that they had previously identified their preferred east-west route as part of internal discussions to identify a suitable route for the Noront's Eagle's Nest transportation corridor. Once the community-preferred corridor was identified,

Activity/Date/Status	Summary of Results/Decisions
	preliminary baseline environmental and baseline studies were conducted along this alignment.
Webequie Supply Road Environmental Assessment and Preliminary Engineering (2018 - ongoing)	Webequie First Nation is a proponent for an environmental assessment and preliminary engineering study of a proposed 107 km supply road extending from its airport to the McFaulds Lake area. The 2 km wide preliminary preferred corridor is carried forward as part of the study.

These studies served as the foundation for the identification and initial assessment of alternatives for the proposed Webequie Supply Road. Further details of this assessment are provided in Sections 5.1.2.2 and 5.2 below.

5.1.2.2 Alternative Road Corridors

As described in the background/historical context narrative (Section 5.1.2.1), over the last decade, there has been extensive examination of alternative road corridors in and around the McFaulds Lake area, as well as alternatives for interconnecting future mine developments and remote First Nations to the provincial highway system. The outcome of these past studies in parallel to the Webequie Supply Road EA have further advanced the planning process towards the identification of alternative corridors and the ultimate future selection of a preferred all-season access road into the area of potential mineral resource development that would add potential benefits and opportunities for WFN.

As a result, the identification of the current alternative road corridors for the WSR EA is limited to those between the Webequie First Nation and the McFaulds Lake area.

5.1.2.3 Initial Identification of Webequie Supply Road Corridor Alternative Concepts

Community Based Land Use Plan

The initial identification of Webequie Supply Road corridor alternative concepts (Alternative Concepts 1 and 2; refer to **Figure 5.7**) is based on the results of previous studies, as well as years of community-based land use planning work conducted by the Webequie First Nation, which is ongoing. This land use planning process includes incorporating and documenting land utilization patterns, sites of Indigenous cultural significance and historical and current traditional practices to establish a Webequie Community Based Land Use Plan (CBLUP) in the context of the Ontario *Far North Act*, which provides the authority, purpose, and process for Webequie First Nation community-based land use planning. Webequie First Nation started the CBLUP process in 2011. An agreed upon Terms of Reference to develop a CBLUP was jointly signed by WFN and the MNRF in July 2014. The purpose of the Terms of Reference was to set out the practical matters and expectations for Webequie and the MNRF to work together and, in consultation with neighbouring First Nation communities, produce the Webequie CBLUP. As such, the Terms of Reference provided a guide for the designation of a Webequie Planning Area; and direction on preparing the community-based land use plan for that area.

It is important to understand that the WFN is a progressive community that has accepted the responsibility of becoming involved and leading a community-based land use planning process. In this process,

Webequie is bringing forward concepts of land use planning that date back several generations, concepts that involve consideration of the community and others. Today, these concepts are the foundation for Webequie's vision for planning. This vision is based on dialogue that has taken place for many generations on land use, and consideration of opportunities and benefits, and also applies protocols and teachings handed down from their ancestors, which has evolved into the Three-Tier planning approach (refer to Section 10 of this ToR).

As part of the vision for the community, Webequie shows respect for neighbouring communities that have shared the land and, therefore, will incorporate shared interests in the development and implementation of the land use plan. Inherent to the Plan, Webequie has a belief that they are, in fact, stewards of the land and have the need and the right to live off the land. The Elders and the community as a whole realize the importance of both development and protection. They also believe that living off the land for sustenance is vital to protect cultural heritage, while understanding that resources in the planning area (as well as in Webequie's broader area of interest) are valuable for the well-being and advancement of the community.

The Draft CBLUP currently in progress addresses the proposed Webequie planning area, providing recommendations for land use areas, land use designations, and activities that are permitted or not permitted in those areas. The Draft Plan recommends eight land use areas, with land use designations of Dedicated Protected Area, Enhanced Management Area and General Use Area. A key planning subject in the Plan, which is relevant to the WSR, is infrastructure and community development. As such, the Plan considers and identifies infrastructure needs and opportunities for the community, potential infrastructure corridors (e.g., transmission lines, winter road upgrades, all-weather roads, fibre-optic lines), and other possible development needs (e.g., mining camps, and airstrips) and, specifically, will:

- Consider interests both within and beyond the planning area (e.g., with regard to alignment of primary corridors);
- Provide zoning within the planning area that will support desired opportunities and interests, and provide strategic direction to protect values and features; and
- Include information, direction or guidance on environmental, economic, social, and cultural interests that can inform and complement environmental assessment processes for corridors.

The community-based land use planning follows a stepwise process for decision making that is consultative in nature based on a consensus building approach. Key steps in the process are: Phase 1 – Preparing for Planning; Phase 2 – Terms of Reference; Phase 3 – Draft Plan; and Phase 4 – Final Plan. Webequie First Nation is currently in Phase 3 that involves jointly preparing the Draft CBLUP with the MNRF. After the completed Draft Plan is shared with the community, with adjacent First Nation communities and all interested people and organizations, the joint planning team will consider all input and continue work to prepare the Final Plan. The Final Plan will be jointly approved by the Chief of Webequie First Nation and the Minister of Natural Resources and Forestry. The timeframe to prepare the Final CBLUP is December 2020. As set out in the *Far North Act*, once a community-based land use plan is approved, it is required that decisions will be consistent with the land use designations and permitted uses specified in the plan.

Overarching Criteria for Development of Supply Road Alternatives

In keeping with MECP's Code of Practice for determining a reasonable range of alternative methods for implementing the Webequie Supply Road, the Project Team included the following considerations:

Questions for Consideration	Response
Do the alternatives provide a viable solution to the problem or opportunity to be addressed	YES Pursuant to the assessment of alternatives to the undertaking presented in **Section 5.1.1.1** of the ToR, construction of an all-season road constitutes the most viable solution to realizing the opportunities identified by Webequie First Nation.
Are they proven technologies?	YES Although winter roads have historically been the primary means of establishing major ground travel corridors in Ontario's Far North, they are becoming less reliable/safe due to climatic changes (i.e., they may only be operational for 2-3 weeks a year), and First Nations communities have started to participate in the planning and implementation of all-season roads (e.g., Wa-Pik-Che-Wanoog Bridge and North Caribou Lake segment of Northern Ontario Resource Trail). There are proven technologies for construction of all-season roads in the challenging geographical conditions that will be encountered on this project (e.g., use of styrofoam slabs and geotextile/geogrid in peat/muskeg soils).
Are they technically feasible?	YES Although more costly to build and maintain, as noted above, there are various technically feasible design and construction solutions for implementing all-season roads in Canada's northern regions.
Are they consistent with other relevant planning objectives, policies and decisions?	YES As stated in **Section 1.4.2** of the ToR and summarized in **Appendix A**, in addition to the mining context and potential economic development benefits of linking the WFN to the mineralized zone, the Webequie Supply Road is also relevant in the context of broader, long-term provincial growth, development and multimodal transportation initiatives in the region, including: the 2041 Northern Ontario Multimodal Transportation Strategy (Draft); the Growth Plan for Northern Ontario; and Ontario's Mineral Development Strategy.
Are they consistent with provincial government priority initiatives?	YES The all-season road alternatives under consideration during the ToR phase accounted for such initiatives as source water protection, resource (mineral) development, reducing greenhouse gas emissions, protection of endangered species and their habitat, enhancing communications links and reducing reliance on fossil fuels.

Questions for Consideration	Response
Could they affect any sensitive environmental features?	YES The development and screening of alternative road concepts accounted for potential effects on natural, cultural, and socio-economic environmental features and values deemed important by Webequie and other First Nation communities in the immediate vicinity of the Project (caribou habitat, culturally important natural and built features/landforms, areas used intensively for traditional activities, fish spawning areas, seasonal hunting areas, moose mating areas, community spring water sources), as well as potential effects to the broader environment (effects on businesses, archaeological sites and areas with archaeological potential, other sensitive land uses in the context of the WFN community based land use plan, air quality and noise).
Are they practical, financially realistic and economically viable?	YES In terms of, geographical location/extent and configuration, (107 km 2-lane gravel surface within a 35 m right-of-way), development of the alternative road concepts recognized and addressed existing physical constraints and opportunities, as well as financial limitations imposed by existing community resources and external public funding sources and mechanisms. In this context, they are considered practical, feasible and economically viable.
Are they within the ability of the proponent to implement?	YES Within the financial limitations imposed by existing community resources and external public funding sources and mechanisms, Webequie First Nation currently believes that it is capable of implementing any of the proposed alternative road concepts. WFN is also exploring the feasibility of entering into a public private partnership to implement the Project, similar to the arrangement for constructing other comparable Northern and Indigenous undertakings (e.g., Tłı̨chǫ All-Season Road in NWT).
Can they be implemented within the defined study area?	YES The practicality of implementing the Project within its established geographic bounds is addressed above (i.e., the Project can be physically constructed within the defined study area). The study area has been defined on the basis of the Webequie First Nation Draft Community Based Land Use Plan. As described in **Section 5.1.2.3** of the ToR, the Draft CBLUP has identified designated use areas within the Planning Area of Interest (PAI). The proposed project road corridor is compatible with the plan objectives and permitted uses for the

Questions for Consideration	Response
	designated areas within which it is situated. Therefore, there should be no conflicts in implementing the Project from an administrative perspective.
Are they appropriate to the proponent doing the study?	YES Webequie First Nation is the project proponent. Other First Nations in Ontario's Far North and in other Northern regions of Canada have participated in similar all-season road initiatives, although not as the primary proponent. The Project is situated wholly within WFN Reserve lands and/or the community's Draft CBLUP Planning Area of Interest, although peripheral parts of the PAI constitute recognized shared territory with other First Nation communities. Therefore, it is appropriate for WFN to assume proponency for the road corridor alternatives under consideration.
Are they able to meet the purpose of the *Environmental Assessment Act*?	YES The purpose of the *Environmental Assessment Act* is "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment" (R.S.O. 1990, c. E.18, s. 2). There is a high degree of alignment between the purpose of the Act and purpose of the Project as stated in **Section 1.4.1** of the ToR, particularly with respect to bettering the quality of life for WFN community members by fostering employment and economic development opportunities (refer also to expected project benefits in Table 7-2 in the ToR). Development of the road alternatives is consistent with these purpose statements. Further, the alternative road corridor concepts have been developed with a view to protecting environmental components of value to Webequie community members and other First Nations that share territory with Webequie (refer to the narrative below describing the development of alternative concepts and **Table 5-3** summarizing the screening of the alternatives). The location of the proposed road corridor within WFN Reserve lands and Webequie's PAI provides the opportunity for the community to assume and maintain a prominent role in managing the road facility in an environmentally responsible and sustainable manner.

Supply Road Alternative Concepts

In 2017, concurrently with the ASCRS - Phase 2 work, the Webequie First Nation conducted an initial examination of alternative corridors between Webequie First Nation and the McFaulds Lake area at a conceptual level, building on the past aforementioned studies and using a community-based land use planning approach. This examination considered the input that WFN provided to Noront during the EA for the Eagle's Nest Mine from 2011 to 2014 and, specifically, the East-West corridor alternatives that connected the mine to the provincial highway system at Pickle Lake. This input involved a series of meetings (East-West Group) held between the WFN and Noront (August 2011 to September 2014), and involved a community-based evaluation of route alternatives guided by the Webequie First Nation's Local Working Group, made up of community members of land users, harvesters, Elders, knowledge holders and youth representatives.

The WFN Local Working Group identified sensitivities and features of value for protection that should be avoided, derived from Indigenous Knowledge information and mapping, such as significant hunting areas for moose and caribou and known sacred, burial or spiritual significant sites, as well as respect for land use activities that are shared with neighbouring First Nation communities. In essence, this evaluation allowed for a comparison of the advantages and disadvantages of each alternative corridor. The outcome from this community-based evaluation was provided to Noront and, along with input Noront received from other communities, was the basis for the preliminary preferred East-West corridor, as described in the 2013 Noront Draft EIS/EAR for the Eagle's Nest Mine.

From the above collective processes and past studies over several years that adopted a community-based land use planning approach for infrastructure development, two (2) alternative all-season road concepts were identified and examined (refer to **Figure 5.7**):

1) Alternative Concept 1 – running directly south from the community, following the existing winter road corridor, then east-west to the mineral deposit area near McFaulds Lake; and

2) Alternative Concept 2 – running southeast from the community, then east-west to the mineral deposit area near McFaulds Lake.

These alternatives are described in more detail below.

The alternative supply road corridor concepts are both consistent with the recommended land use areas and designations in the Draft Webequie CBLUP. Specifically, the alternative concepts are located primarily in the designated "General Use Area" (GUA) and "Other Areas", with a minor segment located within an "Enhanced Management Area" (EMA).

General Use Area –The intent of the General Use Ara is to protect cultural values and respect traditional use, while enabling resource development that promotes sustainability for communities and future generations. Cultural and traditional practices by Indigenous people are ongoing in this designated area, where Aboriginal and Treaty Rights are respected. Economic development opportunities include mineral exploration and development, with an emphasis on benefits for First Nations communities, including infrastructure (e.g., roads, transmission lines and other linear corridors) for community access and resource development, small-scale community-led commercial forestry, renewable energy and tourism.

Other Areas - The Other Areas designation captures the east-west section of the alternative concepts and is considered a shared area with Marten Falls and Neskantaga First Nations and where Webequie and the

MNRF/Ontario have determined not to advance planning direction at the Draft Plan stage, pending further additional dialogue with these communities to confirm direction prior to finalizing the Plan.

Enhanced Management Areas - The intent of EMAs is to support a range of resource development opportunities while providing for protection of sensitive First Nation cultural sites, historical travel routes, cultural waterways and harvesting areas, as well as fish and wildlife habitat, muskeg, peatlands, wetlands and remote tourism and recreation values.

The "Corridor EMA", within which a short segment of the WSR is situated, is a 129,000 ha area located to the south of the community. It is a shared area with Neskantaga and Nibinamik and contains historic travel routes from Webequie to these two communities. The Intent of the Corridor EMA is to enable major access corridors to Webequie First Nation and the Ring of Fire, while also protecting cultural and ecological values in the area. The area supports all-season road, hydro transmission and communications corridors to Webequie First Nation. It also supports options for all-season access to adjacent mineral potential areas. Aggregate extraction in the area is supported, while recognizing the need to respect sensitive cultural values. Mineral sector activities are also supported.

The "Prime Lake EMA" is located immediately east of the community and encompasses almost 34,000 ha. The area is a focus for Webequie-led opportunities to connect the community with the Ring of Fire through all-season road planning and associated environmental assessment processes. The intent of this designation is to enable resource development activities and support associated access and infrastructure, including Webequie community supply road interests, in a way that respects First Nation use of the land, and cultural, recreation and tourism values. Mineral exploration and development is a supported activity and aggregate extraction may be pursued. Road use restrictions may be considered on some tourism and resource access roads (e.g., forest access roads) to preserve remoteness in the area. For new roads, there is an emphasis on minimizing the footprint around waterways and water crossings to protect cultural and natural values.

The current Draft Webequie First Nation CBLUP (March 2019) recognizes that there is shared territory with other First Nations within the lands that Webequie has identified as its proposed planning area, including areas shared with Neskantaga and Marten Falls that would be occupied by the Webequie Supply Road corridor. The CBLUP contains the following statements with respect to shared areas and the consultation with Neskantaga and Marten Falls regarding development of the Plan. The Webequie CBLUP also notes that Webequie, Marten Falls and Neskantaga are currently engaged in dialogue related to shared interests in the Ring of Fire mineral deposit as part of a Three-Nation process. Due to the draft status of the CBLUP, and the fact that Plan development and Ring of Fire discussions between Webequie, Neskantaga and Marten Falls are ongoing, the shared areas cannot be shown at this time.

Neskantaga First Nation

Dialogue has been ongoing between Webequie and Neskantaga regarding shared uses and planning interests between the two communities. Community members of Webequie and Neskantaga share close family connections and common history of movement and traditional use in the area between the two communities. Neskantaga First Nation has an ongoing traditional use connection to the southern portion of the proposed Webequie planning area; in the Chipai, Fishbasket and Wapitodem River areas, south and east of Winisk Lake, the upper Winiskisis Channel, and the upper portions of the Ekwan and Attawapiskat River drainage areas that fall within the proposed planning area. Webequie First Nation honors and respects Neskantaga First Nation Indigenous use connections in the proposed planning area.

At the Draft Plan stage, in order to respect the ongoing Three-Nation discussions between Webequie, Marten Falls and Neskantaga, Webequie First Nation has chosen not to advance planning direction for a portion of the proposed planning area. Dialogue regarding the area will be ongoing between the Draft and Final Plan.

Marten Falls First Nation

Webequie and Marten Falls have engaged in regular dialogue regarding shared uses and interests, including in the context of Marten Falls' own CBLUP process. At the Draft Plan stage, in order to respect the ongoing Three-Nation discussions, Webequie First Nation has chosen not to advance planning direction in the shared area. Dialogue will be ongoing between the Draft and Final Plan to confirm a respectful planning arrangement for the shared area. Webequie and Marten Falls are currently advancing their interests in access between the communities, Ring of Fire and the region by way of proposals and environmental assessment processes for community and supply access road projects.

Alternative Concept 1 – Directly South from Webequie and then East-West to the McFaulds Lake Area

The southern interconnection alternative from Webequie First Nation to the proposed East-West section (refer to **Figure 5.7**) largely follows an old winter road corridor, and was developed during preparation of the Noront Project Description (federal EA) and as documented in their Draft EIS/EAR, with input provided by WFN. The north-south interconnection was proposed to traverse from the south side of the community to intersect with East-West section of the proposed all-season road at a location referred to as "Webequie Junction", when Noront was considering a combined winter road/all-season road with load-out facilities at Webequie Junction.

Webequie Junction was an important intersection for Noront's proposed Eagle's Nest mine project. It was at this location that Noront initially proposed to transition the East-West road from a winter road and slurry pipeline running from the mine site west to Webequie Junction, to an all-season road that would largely follow the existing winter road to an intersection with Highway 599 near Pickle Lake.

Through the community-based land use planning process, Webequie community members were engaged in the selection of the southerly link between the community and Webequie Junction, as well as the corridor for the East-West winter road from Webequie Junction into the Eagle's Nest mine site through the Noront Eagle's Nest EA process (2011 - 2013).

Ultimately, an all-season road from Eagle's Nest to the provincial highway system at Pickle Lake was selected as the preliminary preferred road option by Noront Resources in their draft EIS/EAR (2013), which is currently on hold.

Detailed field studies, including biological studies, a Stage 1 archaeological assessment, hydrological studies, geotechnical studies, and other investigations required to support the Noront EA process were conducted to characterize and confirm the constructability of the all-season road and to minimize environmental impacts. Indigenous Knowledge data were also provided by the Webequie First Nation and incorporated into the analysis.

Three alternative corridors between Webequie Junction and Eagle's Nest were examined by Noront that relied on the evaluation and analysis by the Webequie First Nation with respect to avoidance of known

features and sensitivities of value to the community, resulting in selection of a preliminary preferred East-West alignment for the all season road.

The southerly connection between the Webequie First Nation and Webequie Junction was not analyzed in the same detail as the alternative East-West corridor alignments to the east of Webequie Junction. However, the old winter road corridor was selected by members of the Webequie First Nation based on the fact that it would not result in impacts to historic sites or areas of cultural significance. It also minimized potential impacts to traditional land uses and important environmental resources.

Alternative Concept 2 - East and South of the Community and then East-West to the McFaulds Lake Area

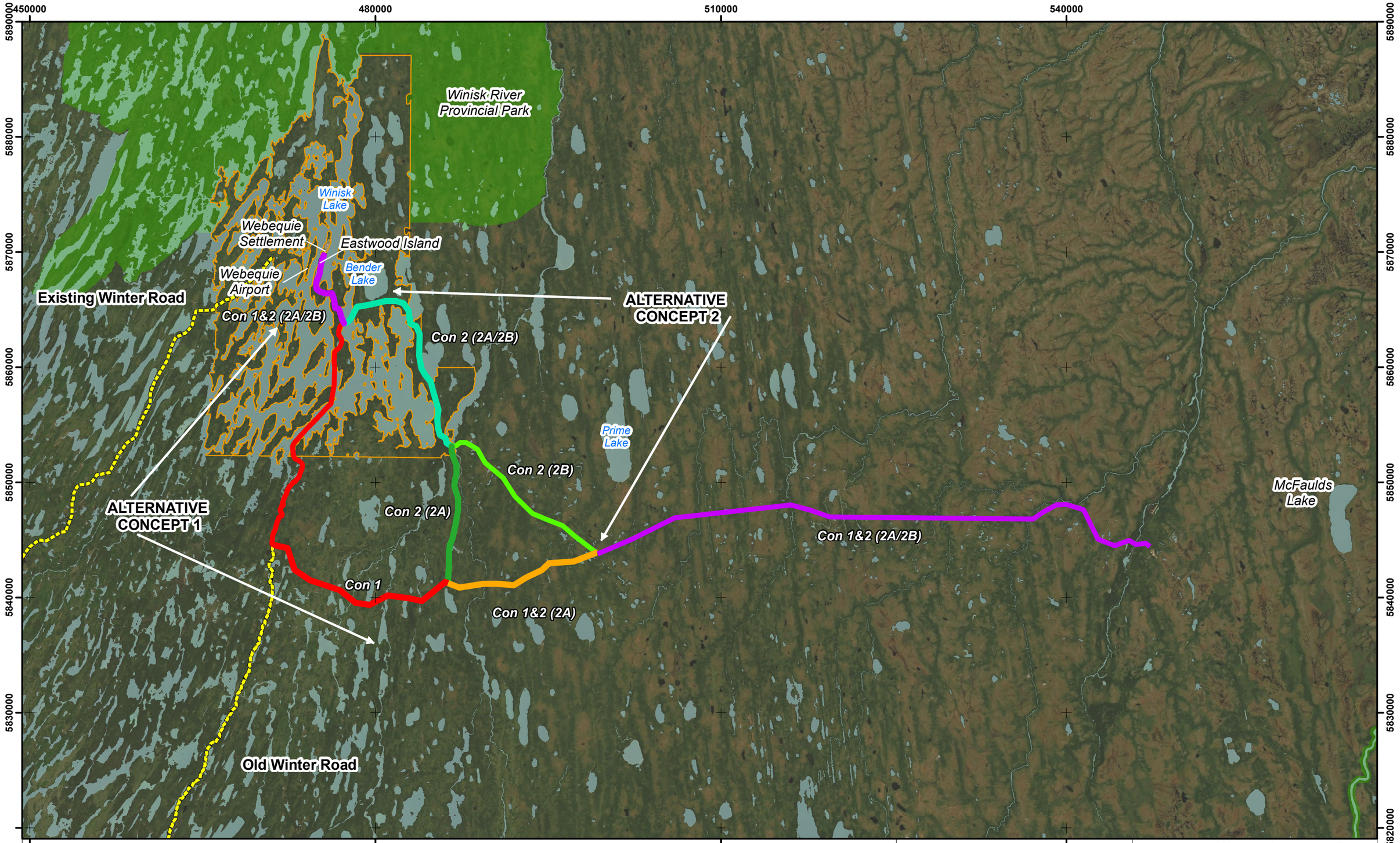
The initial identification of the east corridor concept (Alternative Concept 2) occurred during studies conducted concurrent to the ASCRS – Phase 2 investigations. Without confidence that Noront's proposed East-West corridor would be the preferred mine access road; and uncertainty that the east-west community road had the necessary support of other First Nations, Webequie leadership has chosen to examine an alternative road corridor that would connect with the community on the east side of the reserve (at the Webequie Airport), and then to the corridor identified by Webequie as the preferred routing for the East-West segment of the all season road to the mineral deposit area near McFaulds Lake.

Engagement was conducted by Webequie land use planning staff with community land users, elders and community members. In addition to input received through engagement, information from the Webequie CBLUP was used to identify a general corridor concept (initially 5 km in width) that is consistent with the permitted land uses designations in the Draft CBLUP and that avoids lands with significant historic and cultural value, while also minimizing impacts to environmentally sensitive features, such as watercourse crossings and wildlife habitat, and maximizing constructability through proximity to well drained soils (eskers).

In August 2017, the community engagement consultant and technical consultant conducting baseline fieldwork for ASCRS - Phase 2 visited the Webequie community. Additional in-community meetings were conducted by the consultants in Webequie on October 3 and November 16, 2017 for the purposes of keeping community members aware of project activities and providing them with the technical materials to support intra-community engagement. An off-reserve meeting was also conducted by the consultants on October 26, 2017 in Thunder Bay.

Internal community discussions led by the appointed community coordinator for the Project refined segments of Alternative Concept 2. No refinements to Alternative Concept 1 were made, since this option comprises the old winter road corridor. The community member discussions included various age groups (both independently and together), harvesters and land users, as well as the hereditary chiefs. In order to finalize a preferred corridor, an intense consultation process, involving one-on-one interviews with over forty community members, was conducted between September 28 and October 3, 2017. Participation in the discussion included the use of interactive mapping, with the opportunity to sketch alternatives for the supply road.

The community discussions resulted in the identification of two sub-alternatives for Alternative Concept 2 – Alternatives 2A and 2B. The three alternative concepts are shown in **Figure 5.7**. The corridors under consideration are approximately 2 km in width. These were deemed to constitute a reasonable range of options for addressing the aforementioned project objectives identified by Webequie First Nation.



Legend

Road Alignment Alternatives

- Alternative Concept 1 and 2 (2A/2B)
- Alternative Concept 2 (2A/2B)
- Alternative Concept 2 - Corridor Alternative (2A)
- Alternative Concept 1
- Alternative Concept 1 and 2 (2A)
- Alternative Concept 2- Corridor Alternative 2B
- Winisk River Provincial Park
- Webequie First Nation Reserve

WSR WEBEQUIE SUPPLY ROAD

0 5 10 Km

N

NAD 83
UTM Zone 16N

Webequie Supply Road

Initial Corridor Alternative Concepts Considered by Webequie Community Members

Date: 2019/07/08	File Number: 649920	Sub Code: 0000
Figure Number: **5.7**		Rev. **0**

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5.2 Initial Screening of Webequie Supply Road Corridor Alternative Concepts

The process for screening Alternative Concepts 1, 2A and 2B included an assessment of the advantages and disadvantages of the alternatives against the following factors, which were identified based on discussions with community members as to project area features and sensitivities that may be affected by the Project and what constituted valued components for the community.

Based on a consolidated Indigenous Knowledge database prepared by WFN, and information assembled from published sources and project team field investigations relative to project area sensitivities, the Webequie community-based considerations (valued components) presented in **Table 5-2** were accounted for in developing the evaluation criteria against which the alternative road corridor concepts were screened during the Terms of Reference phase.

Table 5-2: Webequie Community Based Considerations for Screening Alternative Concepts

Consideration	Factor/Screening Criterion
Woodland Caribou	
The Missisa Woodland Caribou range is considered continuous and spans the ecotone between the Ontario Shield Ecozone and Hudson Bay Lowland Ecozone (MNRF, 2014). The minimum Caribou population in the Missisa Range was estimated at 745 based on winter distribution surveys completed from 2009 through 2013 (MNRF, 2014). A combined low mean annual survival estimate (80%) and low calf recruitment indicates the population was on a declining trend at the time of data collection (MNRF, 2014). Woodland Caribou is a "Threatened" species under the Ontario Endangered Species Act and the federal Species at Risk Act. Only the boreal population of caribou is listed as a species at risk in Ontario. Caribou require large undisturbed areas of old and mature conifer upland forest and lowlands dominated by jack pine and/or black spruce. They are also found in bogs and fens. Both of these habitat types exist in proximity to the alternative road corridor concepts, as do known caribou travel corridors and nursery areas. Caribou habitat disturbance has become a systemic problem across Canada, which is a significant issue given the amount of time it takes for habitat recovery (deemed to be in excess of 100 years by some First Nation elders).	***Factor 1: Caribou habitat:*** Community members want to avoid fragmentation of caribou habitat potentially caused by the road corridor.
Natural or Built Features	
There are natural or built features (e.g., hill, historical campsite or cabin) situated on the lands surrounding the built-up area of Webequie community that are important to individual community members, or to the community as a whole. These features may serve as locations for ceremonial rites, storytelling, spiritual reflection, or recreational activities; they may be the site of a	***Factor 2: Culturally significant features (natural or built):*** Community members do not wish to have these features disturbed in any way.

Consideration	Factor/Screening Criterion
historically important event; or they may provide shelter during periods when individuals or groups are away from the main community area for several days at a time. Community members have assigned high cultural significance to these features.	
Traditional Use Areas	
There are numerous locations in close proximity to the built-up area of Webequie that are used intensively and regularly by community members for traditional activities, such as hunting, fishing and resource harvesting/gathering. These areas are important not only because they are rich in fish, wildlife and other resources, but they require fewer costly and supply-limited resources (such as fuel) to reach because of their proximity to the community. These areas may be isolated or grouped in close proximity to each other.	***Factor 3: Areas used intensively for traditional activities:*** Community members wish to preserve these areas intact.
Fishing	
The Project area is situated within tertiary watersheds of the Winisk, Ekwan and Attawapiskat Rivers. Webequie is situated on Eastwood Island, surrounded by numerous waterbodies that support fish and fish habitat, and provide subsistence and recreational fishing for the community. Fish species that inhabit the river systems include Brook Trout, Cisco, Northern Pike and Walleye (known colloquially as Pickerel). Lake species include Smallmouth Bass, Lake Whitefish, Yellow Perch, Lake Sturgeon and Common White Sucker, as well as many smaller forage fish species. Protection of areas where these fish spawn is critical to the preservation of this important resource.	***Factor 4: Fish spawning areas:*** Community members are well aware of local fish spawning areas and their associated species, and wish these areas to remain undisturbed.
Hunting	
Wildlife in the project area comprises a number of terrestrial and waterfowl species that are hunted/trapped by members of Webequie and other communities for subsistence use. These include moose, caribou, beaver, snowshoe hare, marten, ducks and geese. Certain areas have habitat characteristics that make them popular seasonally for hunting, such as areas where waterfowl will stage during the period of early spring when open water begins to appear (e.g., north shore of Bender Lake). Webequie community members frequent these areas and have established infrastructure to facilitate hunting activities (e.g., blinds, campsites). Community members recognize that the noise and movement of vehicles during waterfowl staging periods could impact these areas significantly.	***Factor 5: Seasonal hunting areas:*** Community members wish these areas to be remote or buffered from the road corridor.
Moose	
Moose are an important subsistence species for Webequie First Nation. During the moose-rutting (mating) season (September-October) moose are found in different areas than during other	**Factor 6: Moose mating areas:** In order to sustain the moose population, community members

Consideration	Factor/Screening Criterion
seasons. Before the bull moose go into rut, they are usually found in the higher elevation areas. They will seek out cooler and thicker areas of the forest, trying to escape insects and predators. Cow moose and their calves will stay in the lowlands near water. The cows seek out water for food and safety. Calves are vulnerable, especially to wolves and bears; a cow with calf will use the water as an escape when threatened by predators. The amount of daylight (or lack thereof) triggers the rut. When the moose rut begins, and likely for a few weeks before the beginning of the cow moose estrous, the bulls will move down out of the higher elevations to seek out the cows. The bulls will stay in the lower and wetter areas within proximity of the cows to engage in mating. The moose gestation period is in the order of 243 days. The rutting/mating areas are well known to Webequie community members, who understand that the areas have unique habitat characteristics and play a major role in supporting the breeding process.	wish to ensure that the road corridor avoids these areas.
Source Water	
Source water is untreated water taken from rivers, lakes or underground aquifers to supply private and public drinking water systems. The Ontario Clean Water Act, 2006 is part of the multi-barrier approach to ensure clean, safe and sustainable drinking water for Ontarians, by protecting sources of municipal drinking water such as surface water and groundwater. Surface water is water that lies on the Earth's surface in the form of lakes, rivers and streams. It is drawn into a drinking water system through an intake pipe. Surface water is easily contaminated by pollution flowing over the land or directly into lakes, rivers and streams. Groundwater is the water beneath the Earth's surface, found in the cracks and spaces between soil, sand and rock particles. It is drawn into a drinking water system through a well. Surface water and groundwater can be interconnected, with pollutants finding their way from one to another. Groundwater can also be contaminated by pollutants that are deposited on the surface soil or underground. Groundwater contamination can be much more difficult than surface water pollution to remediate*. There is a significant community source of spring water (groundwater) located 10-15 km southeast of the community. Spring water is used by the community for ceremonial purposes, and some community members use this as a potable water source. Community members recognize the importance of protecting its sources of drinking water, and the potential for the road construction and operation to adversely affect the spring water source area, either directly through excavation activities, or through connections with surface water runoff.	***Factor 7: Community source of spring water:*** It is important to community members that the corridor be a significant distance from this valuable resource.

* CTC Source Protection Region website: https://ctcswp.ca/the-facts/source-water-protection-in-ontario/.

In addition to the community based traditional land and resource use evaluation criteria, the alternative concepts were screened against criteria inherent in the broader definition of the environment, as required under the EA Act and in accordance with MECP's Code of Practice, including:

- **Socio-economic environment** – Effects on local businesses in relation to number of businesses disrupted or displaced. This was limited to consideration of potential impacts to provincially licensed traplines. There is limited potential for other effects, since businesses outside the built-up area of Webequie are limited to outfitters generally located in or near Winisk Provincial Park to the north of the community, well removed from the immediate project area.
- **Cultural environment** – Effects on registered archaeological sites, considering Ministry of Tourism, Culture and Sport criteria to identify archaeological potential, where applicable (i.e., proximity to waterbodies or historical travel routes). This also includes known burial, sacred or spiritual sites identified by Indigenous communities, and was combined with Webequie community consideration of culturally significant features.
- **Built environment** – Effects on/compatibility with sensitive land uses in relation to the WFN Draft Community Based Land Use Plan developed to date, and sensitive uses on (federal) Reserve lands.
- **Natural environment** – Effects on surface water; air quality; the acoustic environment; potential to affect/be affected by climate change, number of waterbody crossings and potential impacts to water quality; generation of greenhouse gases; and generation of noise emissions.
- **Technical considerations** - Constructability and cost. Soil conditions in the project area comprise primarily rock and muskeg/peat, with limited workable overburden soil, and construction will require installation of numerous waterbody crossings. Constructability is related principally to how challenging it will be to construct the road in such conditions and whether there are discernible differences amongst alternatives in this regard. Another typical constructability element is how construction will be staged over time and the length of the road corridor. This consideration was excluded, since it is expected that staging will be similar for all alternatives. Capital and operating costs are expected to be directly related to the length of the road, but will also include consideration of waterbody crossings and soil conditions. Construction capital costs have been estimated on a preliminary basis, but operating and maintenance costs are excluded, since the business model for that phase of the Project has not been established.

Table 5.3 presents a summary of the comparative analysis results.

Table 5-3: Summary Comparative Analysis of Supply Road Corridor Alternative Concepts

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
Socio-Economic Environment							
Business Impacts - Licensed trap lines & outfitters	All of the alternative concepts intersect licensed trap lines, with no one alternative considered as having a comparative advantage or disadvantage for this factor. Local outfitters (i.e., escorted fishing and hunting tours) are active on lands to the west of Webequie First Nation, and therefore all the alternatives are considered equal in that no effects to outfitters are anticipated.						
Areas used intensively for traditional activities (socio-economic and cultural)	-	Alternative runs through traditional use area for 10-20 km	-	Alternative runs through traditional use area for 10-20 km	-	Alternative runs through traditional use area for 10-20 km, but less intensively used	Alternative 2B offers minor advantage for this factor in comparison to Alternatives 1 and 2A
Seasonal hunting areas	-	Alternative runs very close to significant waterfowl hunting areas well known to community members	-	Route runs very close to significant waterfowl hunting areas well known to community members	-	Route runs very close to significant waterfowl hunting areas well known to community members	Alternatives are similar, with no one alternative having a comparative advantage

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
Cultural Environment							
Archaeological potential[1]	All of the alternative concepts exhibit archaeological potential using the Checklist Criteria for Evaluating Archaeological Potential, Ministry of Tourism, Culture and Sport (2015)[1]. Therefore, no one alternative is considered to have a comparative advantage or disadvantage for this factor. To assess potential effects to archaeological resources, it is proposed that a Stage 1 Archaeological Assessment be undertaken, which will involve consultation with Indigenous communities, review of existing published data sources and information obtained from stakeholders and agencies.						
Culturally significant features (natural; built; sacred, burial or spiritual sites)	-	In close proximity to known burial sites	-	In close proximity to known spiritual significant site (Sacred Hill) Land user's cabin is directly along proposed route	No known sacred, burial or spiritual sites present	Land user's cabin is directly along proposed route	Alternative 2B is preferred, as it minimizes and avoids known cultural sites or features of significance
Built Environment							
Webequie Community Based Land Use Plan	All of the alternative concepts are consistent with the recommended land use areas and designations in the Webequie Draft CBLUP; therefore, no one alternative is considered to have a comparative advantage or disadvantage for this factor.						
First Nation reserve land	-	Approx. 37 km of the concept route is within Webequie First	-	Approx. 27 km of the concept route is within Webequie First Nation Reserve lands	Approx. 21 km of the concept route is within Webequie First	-	Alternative 2B is considered to a have comparative advantage to the other

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
		Nation Reserve lands			Nation Reserve lands		alternatives for this factor
Natural Environment							
Air	The effects of all alternatives on the potential to contribute to adverse climate change (through greenhouse gas emissions), or be affected by climate change (e.g., exposure to flooding), are relatively similar due to their proximity to each other for a component that is assessed at a regional or sub-regional level. Based on the project schedule (a 6-month Site Preparation period would be followed by a 33-month Construction Period, with Operations commencing immediately after commissioning), the preliminary estimate of greenhouse gas emissions attributable to the Project during construction is 73.2 kilotons of CO_{2eq}, and during the operations phase the annual contribution would be 11.8 kilotons of CO_{2eq}. These contributions in relation to Ontario and Canada-wide totals and future targets are below 0.05%.						
Noise	All of the alternatives have similar potential effects with to respect noise level and spatial extent as a result of equipment and vehicle emissions during site preparation, construction and operation phases of the Project. Therefore, no one alternative is considered to have a comparative advantage or disadvantage for this factor. Noise levels will be managed using Best Management Practices, such as use of proper equipment and adherence to manufacturer's specified maintenance frequencies.						
Caribou habitat	Area within which corridor sits is not known by Webequie community members to be frequented by caribou	-	-	Southernmost portion of road runs through known caribou habitat	Minimizes effects to known caribou habitat areas, but does not fully avoid	-	Alternative 1 is preferred for this factor

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
Caribou *Range Condition (Includes cumulative disturbance, alignment with existing or proposed disturbance)*	Utilizes currently disturbed/ regenerating lands instead of intact forest	Minimizes effects to known caribou habitat areas, but does not fully avoid	Passes through lands currently disturbed by human presence along shores of Winisk Lake and cabins present, instead of intact forest	Southernmost portion of road runs through known caribou habitat	Passes through lands currently disturbed by human presence along shores of Winisk Lake and cabins present, instead of intact forest	Southernmost portion of road runs through known caribou habitat	Alternative 1 is considered to a have comparative advantage compared to the other alternatives
Caribou *Habitat Protection (Area, Arrangement, and Condition of All Category Types)*	Avoids possible nursery habitat along western shores of Winisk Lake Minimizes footprint (approx. 14 km of road length) within known winter habitat	Minimizes effects to known caribou habitat areas, but does not fully avoid	Route skirts western edge of core habitat areas and minimizes severity of fragmentation across Category 1 habitats	Removes known habitat directly adjacent to probable calving/ nursery areas along east shore of Winisk Lake and creates barrier between those habitat types Results in greatest total length of road (46 km) passing	Minimizes total length of road (37 km) passing through known caribou habitat	Removes known habitat directly adjacent to probable calving/nursery areas along east shore of Winisk Lake and creates barrier between those habitat types Greatest vegetation clearance within the interior of wintering habitat and perhaps	Alternative 1 is considered to a have comparative advantage compared to the other alternatives

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
				through caribou wintering habitat		greatest degree of fragmentation within Category 1 habitat	
Caribou Species Protection	Minimizes anthropogenic and predator access to known caribou habitat areas	Minimizes effects to known caribou habitat areas, but does not fully avoid	Route skirts western edge of core habitat areas where predators already have access and moderates possibility of caribou mortality	Approximately 46 km of road length is in caribou habitat and may result in increased fragmentation and provides predator and anthropogenic access into known caribou habitat	Reduces total length of road passing through known caribou habitat compared to Alternative 2A	Approximately 37 km of road length is within core caribou habitat and may result in increased fragmentation and predator and anthropogenic access into known caribou habitat	Alternative 1 is considered to a have comparative advantage compared to the other alternatives
Moose mating areas	-	Intersects broad area south of community	-	Intersects broad area south of community but to a lesser extent than Alternative 1	-	Intersects area south of community	Alternative 2B has a comparative advantage to Alternatives 1 and 2A, as it intersects mating areas to a lesser degree
Fish spawning areas	-	Alternative runs very close to significant fish spawning areas well known to	-	Alternative runs very close to significant fish spawning areas well known to	-	Alternative runs very close to significant fish spawning areas well known to	Alternatives are similar, with no one alternative having a

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
		community members		community members		community members	comparative advantage
Waterbody crossings (lakes and rivers)	-	Alternative 1 has 49) waterbody crossings Approx. 7.7 km of alternative route length will require structures to cross waterbodies	Alternative 2A has 36 waterbody crossings Approx. 1.42 km of alternative route length will require structures to cross waterbodies	-	Alternative 2B has 31 waterbody crossings Approx. 1.40 km of alternative route length will require structures to cross waterbodies	-	Alternative 1 has the longest route length crossing over waterbodies, and requires a greater number and/or span length for structures in comparison to Alternatives 2A and 2B. The route length requiring structures to cross waterbodies is considered similar for Alternatives 2A and 2B Alternative 2B is preferred for this factor, as it has the lowest number of waterbody crossings
Community source of spring water	Distant from community source of spring water	-	-	Very close to community source of spring water	-	Very close to community source of spring water	Alternative 1 is preferred for this factor

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
Technical Considerations							
Constructability	-	North-south section (old winter road) of Alternative 1 has constructability issues due to extensive area of waterbody crossings and poor soil and terrain conditions	.	Conditions in this alternative route include extensive organic terrain of bogs and fens that represent a constructability challenge	-	Conditions in this alternative route include extensive organic terrain of bogs and fens that represent a constructability challenge	Alternative 1 has the greatest constructability challenges in comparison to Alternatives 2A and 2B due area of waterbody crossings Alternatives 1, 2A and 2B all share poor soil and terrain conditions (bogs and fens) where there is a common east-west routing direction Alternatives 2A and 2B have similar constructability issues with respect to soil and terrain; therefore, no one alternative is considered have a comparative advantage

FACTOR	ALTERNATIVE CONCEPT 1		ALTERNATIVE CONCEPT 2A		ALTERNATIVE CONCEPT 2B		RESULTS OF COMPARISON
	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	
Cost	Alternative 1 is 113 km in length Preliminary estimated capital cost is $45.2 million dollars		Alternative 2A is 104 km in length Preliminary estimated capital cost is $41.6 million dollars		Alternative 2B is 95 km in length Preliminary estimated capital cost is $38 million dollars		Alternative 1 has the highest preliminary cost Alternative 2A has a lower cost than Alternative 1, but greater cost than Alternative 2B Alternative 2B is preferred for this factor, as it has the lowest preliminary cost

Notes:

[1] Source used to determine archaeological potential is Criteria for Evaluating Archaeological Potential (A Checklist for the Non-Specialist), Ministry of Tourism, Culture and Sport (2015), Specifically, an answer of "Yes" was identified for the following questions of the checklist and therefore was deemed to have archaeological potential and subject an assessment undertaken by a licensed consultant archaeologist.

1. Is there Aboriginal knowledge or historically documented evidence of past Aboriginal use on or within 300 metres of the property (or project area)?
2. Are there present or past waterbodies within 300 metres of the property (or project area)?

Note for 2: Waterbodies (lakes, rivers, streams, springs, etc.) are associated with past human occupations and use of the land. About 80-90% of archaeological sites are found within 300 metres of waterbodies.

The screening of alternative corridor concepts concluded that an easterly corridor (Alternative Concept 2B) over Alternative 2A and the more westerly old winter road corridor (Alternative Concept 1) is more favourable. However, as shown in **Table 5-3**, the comparative assessment also identified potential impacts to Woodland Caribou habitat of value to the community that was not fully avoided (refer to Column "Result of Comparison"). Consequently, the corridor was further refined using the seven (7) valued community components through additional local community representative engagement with harvesters and land users, resulting in an easterly shift of the corridor and identification of the preliminary preferred corridor, as shown in **Figure 5.8**.

Webequie Supply Road

Figure 5.8

Preliminary Preferred Corridor Resulting from Additional Webequie Community Engagement

WSR
WEBEQUIE SUPPLY ROAD

Winisk Lake
Eastwood Island
Webequie
Bender Lake
Prime Lake
Proposed Mining Development

Context Map

Preliminary Preferred Corridor for Webequie Supply Road

N
W E
S

0 2 4 6 8 km

Coordinate System: NAD 1983 Ontario MNR Lambert
Projection: Lambert Conformal Conic
Datum: North American 1983

Source: Esri, DigitalGlobe, GeoEye, Ear

5.3 Rationale for the Preferred Corridor Alternative

The rationale for selection of the Webequie community's preferred development corridor to carry forward for more detailed identification and analysis of routing alternatives for the supply road in the EA is as follows:

- Runs east of areas used most intensively for traditional activities south of the community;
- Minimizes intersecting significant moose mating areas located south of the community and north of the proposed East-West section of corridor;
- Avoids existing caribou habitat east of Webequie by following a more linear north-south alignment, rather than a southeast alignment that would reduce road length, but does not full avoid potential affects;
- Proposed corridor avoids known sacred, burial or spiritual sites;
- Minimizes impacts to Webequie First Nation Reserve lands;
- Minimizes the number of waterbody crossings required; and
- Lowest estimated capital cost for construction.

5.4 Development of Routing Sub-Alternatives within Preferred Supply Road Corridor

Since the geotechnical component is expected to have such a significant bearing on development, assessment and selection of the supply road corridor, during the winter of 2018-19, terrain mapping and related opportunities and constraints were overlain on a 2 km wide band along the community's preferred corridor to identify a set of sub-alternatives. A summary of the preliminary terrain analysis and route assessment is presented in the following sections.

5.4.1 Initial Geotechnical Assessment - Terrain Mapping

Various existing data sources were compiled to interpret and map the terrain conditions within the preferred corridor to identify reasonable route sub-alternatives from a geotechnical perspective. Terrain mapping involved the interpretation of remotely sensed imagery and elevation data, supplemented with existing surficial geology maps, to characterize the landforms, surficial materials, topography, and hydrology.

Based on the terrain mapping, general geotechnical conditions and potential construction issues and risks were identified and assessed, including the characteristics of surficial materials that will form the roadbed foundation (including groundwater and permafrost conditions), availability of borrow and aggregates for construction, and topographic considerations to optimize vertical alignment and reduce cut/fill volumes. At the planning stage, this information can be used to help locate an optimum route centreline within the preferred corridor that respects engineering, environmental and socio-economic considerations.

5.4.1.1 Routing Considerations

In the context of the foregoing considerations, route location criteria included the following:

- Route length;
- Surficial material (mineral vs organic soils);
- Bogs and fens;
- Topographic relief and slopes;
- Availability of bedrock borrow (i.e., lack of borrow in some locations);

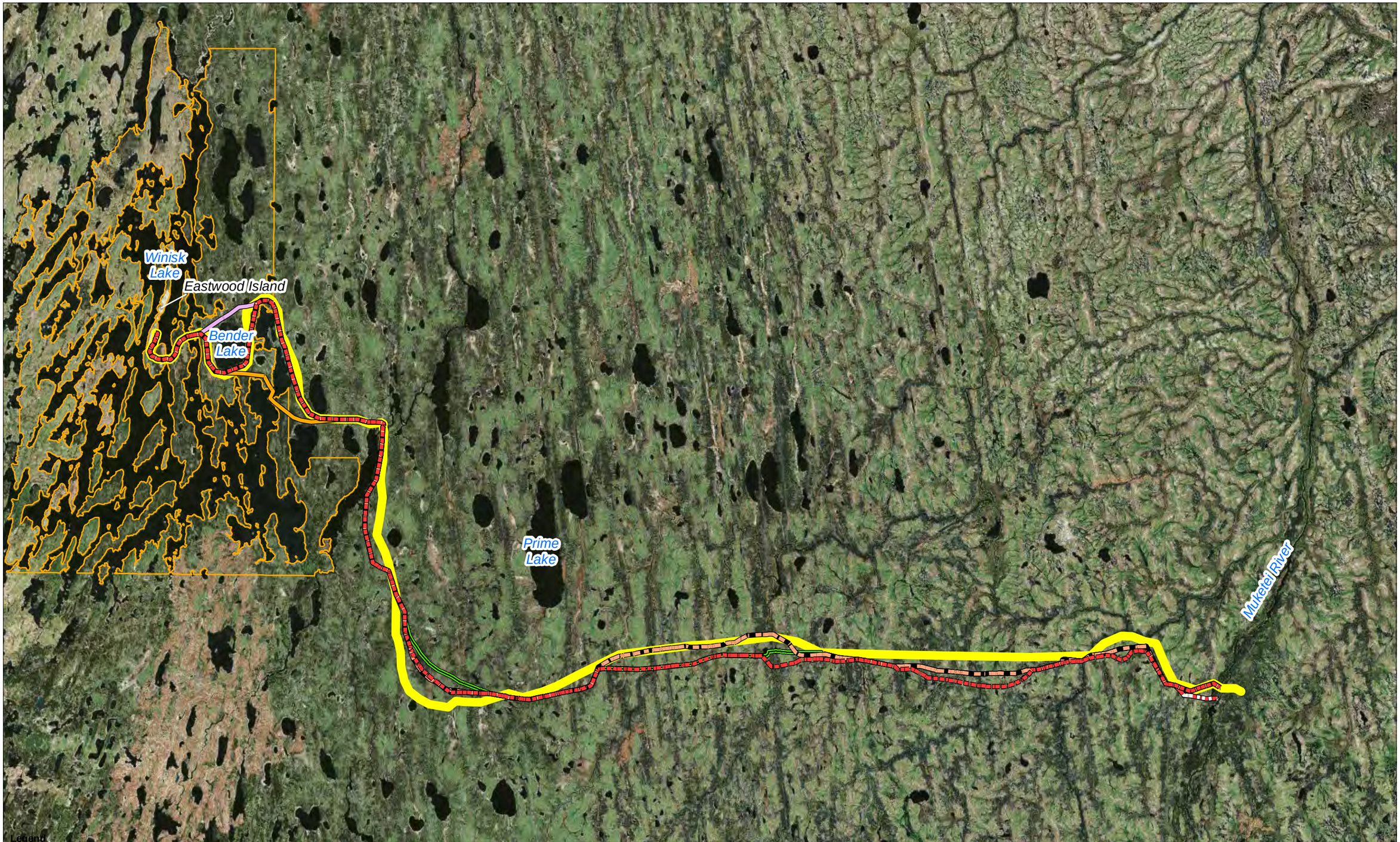
- Ice-rich peat bogs and fens;
- Extensive wetland and thermokarst-affected terrain;
- Wide river crossings; and
- Proximity to potential aggregate sources.

Route alternatives were identified with a view to: minimizing the total route length; following routes that maximize terrain units of favorable constructability (e.g., glacial till); minimizing traversing units of poor constructability (e.g., fens); minimizing the number and widths of stream crossings; and minimizing aggregate haul distances. While a shorter route is typically preferred, all other things being equal, there can be environmental, engineering, and economic advantages of an overall longer route that follows favorable terrain units and minimizes stream crossings. Terrain units with mineral soils are considered favorable for route construction, while those units with organic soils are considered unfavourable. Bogs are preferred over fens because bogs typically have a lower water table and thinner organic soil.

5.4.1.2 Alternative Routes

A total of six (6) alternative routes were mapped within the proposed preliminary corridor refer to **Figure 5.9**), each of which share various common segments and differ along other segments that offer advantages and disadvantages. Three (3) of the alternative routes differ only in the westernmost segments of the corridor around Winisk Lake and Bender Lake on the eastern approach to Webequie. Routes 1 and 2 diverge around Bender Lake, with Route 1 following a longer path around the south of the lake and Route 2 taking the shorter path to the north that requires a small channel crossing. East of Bender Lake, these routes both pass around the northern end of a long embayment of Winisk Lake. Route 3 cuts across a narrow portion of this embayment of Winisk Lake and passes to the south of Bender Lake, which results in a much shorter route, but requires a channel crossing over the embayment.

Routes 4, 5, and 6 share the same path east from Webequie and along the main north-south segment. These routes differ along the west-east segment that crosses the organic terrains and at the point of crossing the Muketei River. The challenge along this portion of the route corridor is avoiding the extensive fens and water crossings.



Legend

- Geotechnical Alternative 6
- Geotechnical Alternative 5
- Geotechnical Alternative 4
- Geotechnical Alternative 3
- Geotechnical Alternative 2
- Geotechnical Alternative 1
- Community Preferred Route

WSR WEBEQUIE SUPPLY ROAD

0 5 10 Km

N

Webequie First Nation Supply Road

Route Alternatives for Geotechnical Assessment

Date: 2019/03/29	File Number: 649920	Sub Code: 0000
Figure Number: 5.9		Rev. 0

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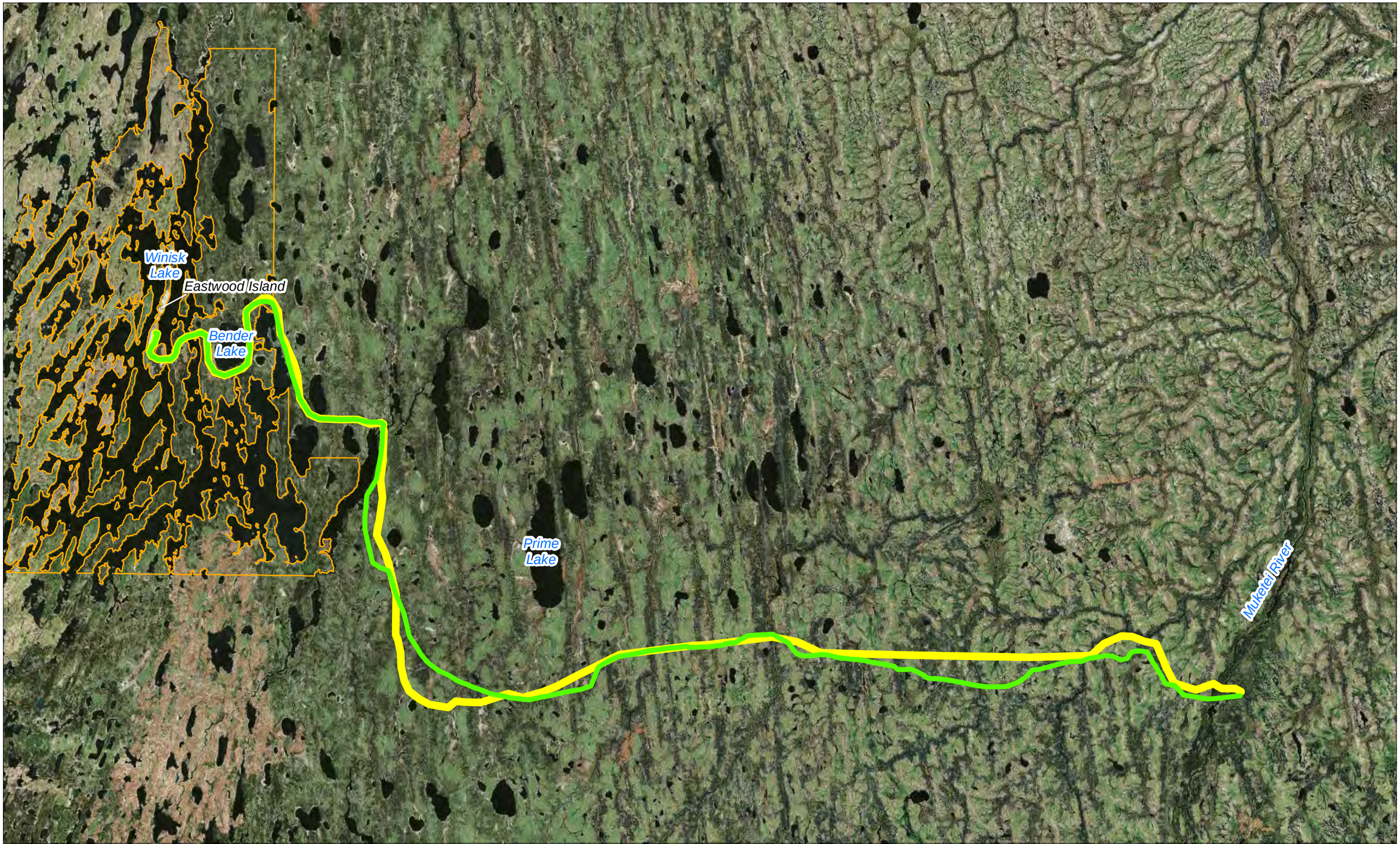
5.4.1.3 Optimal Geotechnical Route

The optimal route from a geotechnical perspective (refer to **Figure 5.10**) was selected by picking segments from the six alternative routes that best meet the major criteria of route length, terrain conditions, stream crossings, and proximity to aggregate sources. The optimal route minimizes total length in two main locations. The first is in the area southwest of Prime Lake, where the corridor transitions from north-south to east-west at nearly a right angle. By crossing outside of the community's preferred corridor to the north, the optimal route cuts the overall length without adding additional water crossings. The second key location is around Bender Lake, where the optimal route crosses the shorter path northward around the lake. The second location (north around Bender Lake) was ultimately discounted in the optimal geotechnical route because it does not stand the test of avoiding the sensitive waterfowl staging area at this location.

The optimal route was selected to minimize the length of route crossing terrain units considered to have a poor constructability ranking, in particular the various types of fens that feature organic soils and a water table at surface. Overall, this results in a route that is south of the community's preferred corridor along the east-west extent and that lies outside of the corridor along a small portion of the route.

Other geotechnical information, such as the results of the ground penetrating radar (GPR) survey to assess peat thickness, and the geotechnical drilling program to assess road/bridge foundation conditions, will be considered in conjunction with the optimal route during the EA process to further refine routeing and alignment assessments and inform design decisions.



Legend

- Optimal Geotechnical Route
- Community Preferred Route

WSR
WEBEQUIE SUPPLY ROAD

0 5 10 Km

N

Webequie First Nation Supply Road

Optimal Geotechnical Route

Date: 2019/03/29	File Number: 649920	Sub Code: 0000
Figure Number: **5.10**		Rev. **0**

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5.5 Supply Road Alternatives Carried Forward for Environmental Assessment

The proposed set of supply road alternatives within the proposed preliminary corridor that will be subject to the environmental assessment is presented in **Figure 5.11**.

The corridor between Webequie and the McFaulds Lake area has been divided into the following segments to provide flexibility in the ultimate selection of the preferred alternative, including the potential for development of additional sub-alternatives and combining segments from the community's preferred corridor and the optimal geotechnical route.

Segment 1 – from Webequie Airport easterly, traversing the lands most intensively used by Webequie community members for traditional purposes.

Segment 2 – the north-south section and the bend connecting to the east-west routing alignment. Note: although the majority of the 51 km east-west leg of the Webequie Supply Road is coincident with the routing previously developed by Noront in consultation with WFN to serve the Eagle's Nest mine, due to the current status of the Noront proposal (EA is paused; revived EA will not include an all-season road connection to the provincial highway network), this Webequie Supply Road segment should be considered as a separate project from the Noront road.

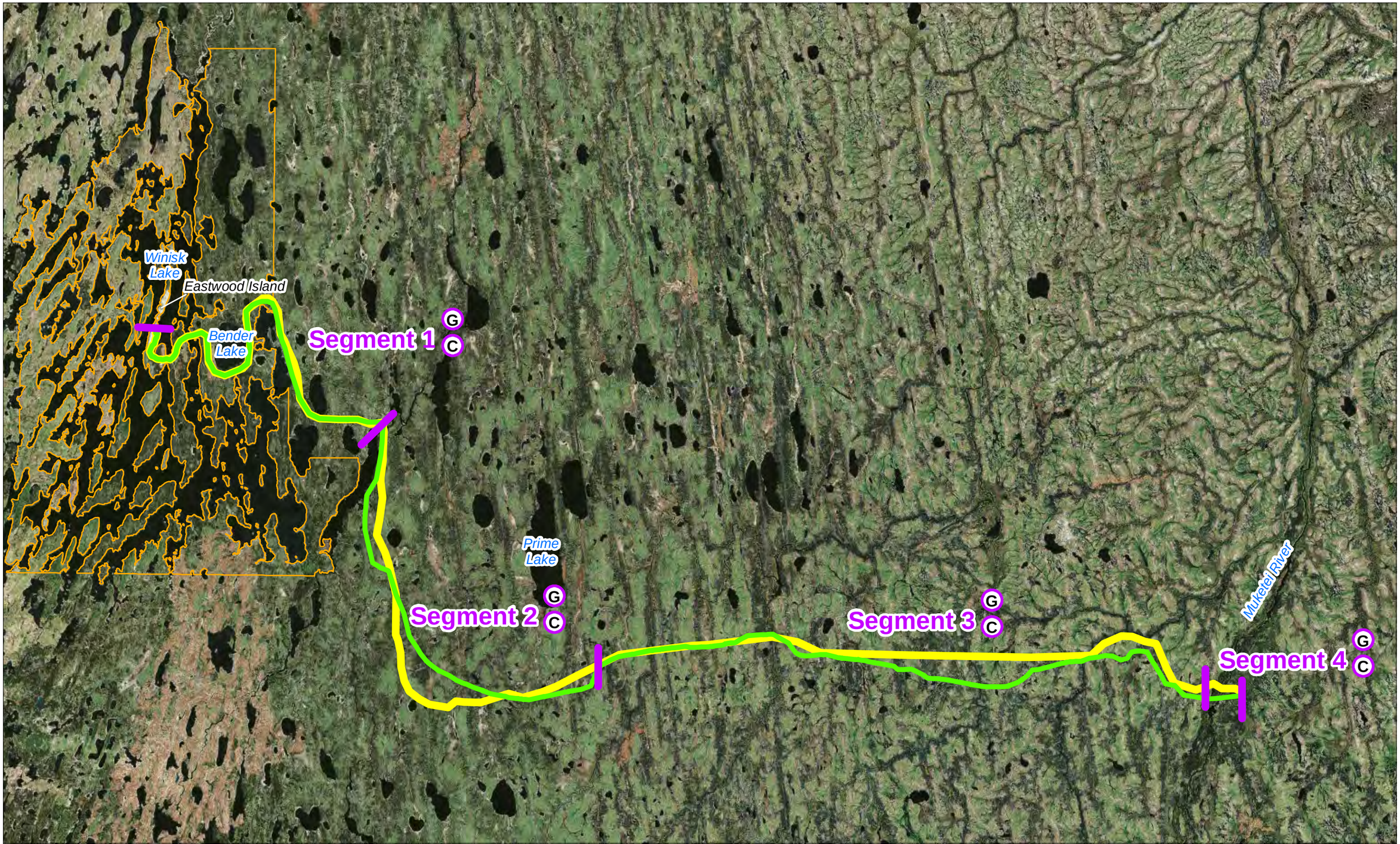
Segment 3 – the east-west section across the James Bay Lowlands area.

Segment 4 – the crossing of the Muketei River.

The initial options within each segment have been identified based on the two primary corridors that have emerged from the initial screenings – Webequie community's preferred corridor (C series) and the optimal geotechnical route based on terrain mapping (G series).

The proposed segmentation of the supply road corridor and the options within each segment will be subject to review and refinement during the environmental assessment process, including the identification and development of additional alternatives, as appropriate.

In addition, as indicated in Section 5.1.1.6, the Do Nothing option will also be carried forward as a comparator in the EA study for the purposes of assessing the overall advantages and disadvantages of proceeding with the preferred method of implementing the Project.



Legend

- Optimal Geotechnical Route (G)
- Community Preferred Route (C)

WSR WEBEQUIE SUPPLY ROAD

0 5 10 Km

N

Webequie First Nation Supply Road

Proposed Webequie Supply Road Alternatives Carried Forward to Environmental Assessment

Date: 2019/03/29	File Number: 649920	Sub Code: 0000
Figure Number: **5.11**		Rev. **0**

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6 Existing Environmental Conditions in the Study Area

6.1 Study Area

The Project is located in Northwestern Ontario, with the northern end of the road approximately 525 km northeast of Thunder Bay (refer to **Figure 1.1)**. The Project is located on provincial Crown land, Webequie First Nation Reserve land under federal jurisdiction), and the traditional territories of Indigenous communities (refer also to Section 6.4.6 Land and Resource Use). **Figure 6.1** illustrates the location of the alternative routes in relation to project area features and sensitivities. Due to confidentiality constraints (including those imposed by Webequie First Nation and Government of Ontario ministries), and the need to respect the wishes of potentially affected Indigenous communities with respect to divulging certain information on the use of lands in the project area, it is not possible to illustrate the location or bounds of a number of features and sensitivities, including First Nations' traditional territories, individual camps/cabins, species at risk (e.g., caribou ranges), and government-regulated hunting areas (e.g., trapline licences). However, sensitive features and resources are described in general terms in this section of the ToR.

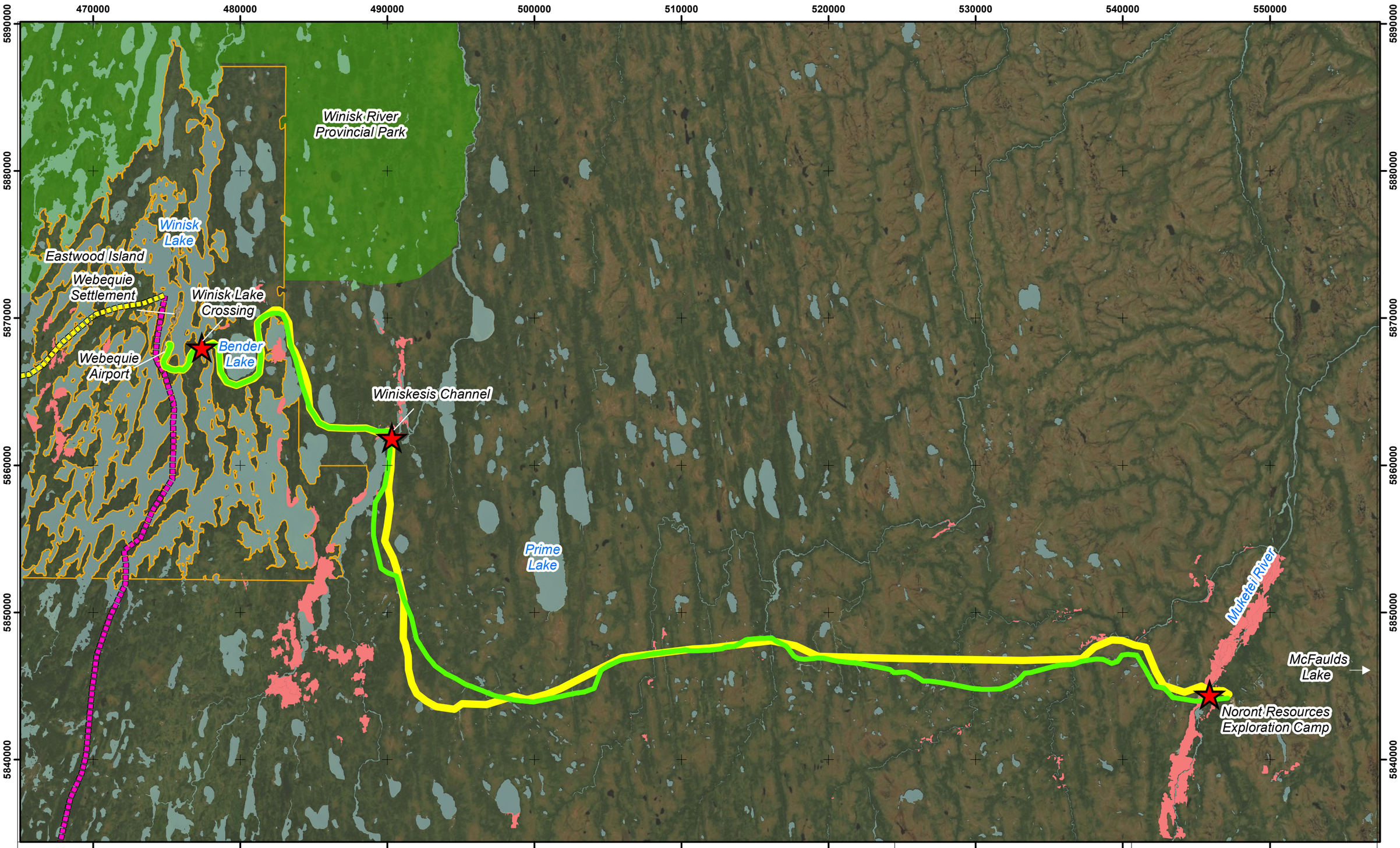
The EA will summarize past investigations and analyses of alternative road alignments between Webequie and the mineral deposit area near McFaulds Lake, and will assess the potential impacts of alternative alignments in the preferred corridor for the Webequie Supply Road. The significance of an environmental impact partially depends on the geographic extent. As such, the impact assessment will be conducted on the basis of specific study areas related to the project development, adopting a multi-scale approach for describing baseline conditions (existing environment) and predicting effects from the Project. More specifically, the Study Area will generally be broken up into the following three components to capture the potential direct and indirect effects of the Project.

Project footprint: established to identify areas of direct disturbance (i.e., the physical area required for construction and operation of the Project). The project footprint is the preferred corridor (35 m Right-of-Way width) and temporary or permanent areas needed to support the Project that include laydown yards, storage yards, construction camps, access roads and aggregate extraction sites.

Local Study Area (LSA): established to assess the potential, largely direct, and immediate indirect effects of the Project on the local environment. The boundaries of each LSA will extend a specified distance from the project footprint boundary to specifically capture the direct and nearby indirect effects on an environmental component/criterion (refer to Section 8.1.1 for the preliminary identification of evaluation criteria).

Regional Study Area (RSA): established to assess the potential, largely indirect and cumulative, effects of the Project in the broader, regional context. The RSA extends beyond the LSA to include the maximum geographical extent to which impacts from the Project may be expected.

The EA will define and describe the specific study areas for each of the environmental components (e.g., natural, socio-economic, cultural) in greater detail. Each component will be assessed within the context of LSA and RSA. The size and extent of each study area may differ for each environmental study component.



Legend

- Proposed Major Water Crossings
- Alternative Route
- Route Preferred by Webequie Community
- Existing Winter Road
- Old Winter Road
- Potential Aggregate Sources
- Webequie First Nation Reserve Limits
- Waterbody
- Winisk River Provincial Park

WSR WEBEQUIE SUPPLY ROAD

0 5 10 Km

N

NAD 83
UTM Zone 16N

Webequie Supply Road

Alternative Routes and Project Area Features / Sensitivities

Date: 2019/09/05	File Number: 649920	Sub Code: 0000
Figure Number: 6.1		Rev. 0

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For example, the study area for assessing terrestrial biological effects (e.g., caribou migration) will likely be more extensive than the hydrological study areas. Watershed boundaries will be utilized, where applicable, to ensure that potential impacts on an entire watershed are considered.

CARIBOU STUDY AREA

The LSAs and RSAs will incorporate the potentially affected caribou range or ranges. Cumulative effects of the Project, as well as other developments in the Ring of Fire on caribou, will be assessed as directed by the Ontario Caribou Conservation Policy under the ESA (2007). WFN and other Indigenous communities have provided input to the Ministry of Natural Resources and Forestry (MNRF) on the Ontario Woodland Caribou Recovery Strategy and the Ontario Woodland Caribou Conservation Plan, and will continue to work collaboratively with the MNRF to define caribou population ranges and, therefore, the necessary study area for consideration in the environmental effects analysis.

6.2 Data Collection Methodology

This section describes overarching data collection methodology goals and the approach to develop a fulsome understanding of the existing (or baseline) natural, socio-economic and cultural conditions in the Study Area for the Project.

Desktop studies will be utilized to collect data and pertinent knowledge for the environmental factors to be considered in the EA. This knowledge will serve to inform preliminary project design and direct efforts for further assessment of the effects to the environment. Information used for the purpose of documenting existing natural, socio-economic and cultural conditions will be gathered from background information provided by government agencies and other stakeholders, as well as published and unpublished data sources. An important information source will be Indigenous Knowledge from WFN and other Indigenous communities that will be incorporated into aspects of the EA, subject to consultation with and willingness of traditional knowledge holders and communities.

Information to characterize existing environmental conditions and features in the Study Area will draw upon the following secondary sources:

- Previously conducted environmental studies, including Indigenous Knowledge information obtained through consultation with Indigenous communities;
- Regulatory databases;
- Aerial photography;
- Geographic Information System (GIS) databases;
- Academic literature; and
- Information obtained from agencies and other stakeholders.

In addition, primary sources of information such as field investigations and first-hand consultation with Indigenous communities and stakeholders will be used to supplement the data gathering effort from secondary sources. Field work studies will focus on the identified preliminary preferred corridor. The scope and intensity of the field studies and the associated data collection methodologies will be further refined during the EA process through consultation with Indigenous communities, federal/provincial agencies and stakeholders.

The specific objectives of the baseline studies are to:

- Describe the existing natural, socio-economic and cultural environments in the Study Area for the Project;
- Facilitate the assessment of potential environmental effects for all phases of the Project;
- Provide the basis for the identification and development of appropriate impact management measures (i.e., mitigation) to avoid or reduce the identified potential environmental effects;
- Identify and evaluate project alternatives to minimize potential environmental effects;
- Establish benchmarks for environmental effects and compliance monitoring that will be implemented during the construction, operation and maintenance of the Project, as required.

Interact with potentially affected Indigenous communities and/or other interested groups during the baseline data collection period to facilitate the two-way exchange of information (i.e., Indigenous Knowledge) and opportunities to express their concerns and preferences with regard to project development.

The description and characterization of the existing environmental conditions provided in the ToR (Sections 6.3, 6.4 and 6.5) will be presented in greater detail in the EAR/IS and will include the method and the results of the baseline field programs that were completed to support the EA.

6.2.1 Biological Environment

The primary field methods for collection of data for the biological environment will include, but are not limited to, the following:

Winter Aerial Caribou Survey

In winter 2019, an aerial Woodland Caribou survey was conducted in accordance with the survey methodology for identifying and delineating woodland caribou winter habitat provided by the MNRF in their publication titled *Selected Wildlife and Habitat Features: Inventory Manual* (Ranta, 1998). This survey consisted of flying a grid of parallel transects, spaced 2 km apart and oriented perpendicular to the preferred corridor, using a Bell 206 Long Ranger helicopter. In total, 40 transects, were surveyed, for an approximate total survey length of 2,400 km. The survey was conducted on consecutive days between February 9-14, 2019 to ensure deep snow conditions (>30 cm). All wildlife observations made during the survey were recorded on a data sheet and included date, time, transect number, Universal Transverse Mercator (UTM) coordinates, species name, number of individuals, and habitat type. Results of this survey will be documented in an environmental baseline condition report to support the EA.

Summer Caribou Calving Survey

Woodland Caribou calving and nursery habitat will be surveyed in accordance with the methodology provided by MNRF and outlined in (Ranta, 1998) for identifying and delineating woodland caribou calving and nursery habitat. Suitable landscape features within the project footprint and LSA (i.e., within 1-2 km of the alternative corridors under consideration), such as islands, peninsulas, and bog/fen complexes, will be identified using aerial photographs and assessment of caribou refuge habitat using the Boreal Landscape Tool to establish candidate areas for the survey.

Field surveys within candidate habitat areas will occur during the calving season (June 15 to August 15) and will consist of ground transects serving to locate signs of caribou occurrence (e.g., tracks, pellets, beds, hair). Candidate habitat will be accessed using a Bell 206 Long Ranger helicopter. In instances where the

helicopter cannot safety land, a low-level survey will be conducted from the helicopter. Results of this survey will be documented in an environmental baseline condition report to support the EA.

Bat Hibernaculum Screening

A review of secondary source information will be undertaken to identify natural and man-made features along the corridors under consideration that may provide bat hibernaculum habitat. In the event that habitat suitable for use by bats as a hibernaculum is located within the project footprint or LSA, it is recommended that acoustic surveys be conducted in proximity to any entry points in late August or September. This is recommended to determine whether swarming is occurring at that site, indicating use of the feature as a hibernaculum.

Bat Maternity Roost Habitat

Maternity roost habitat assessments will be conducted in accordance with the MNRF *Bat Survey Protocol for Treed Habitats* (2017) and/or other protocols to identify forest habitat capable of hosting bat maternity roosts. Forest Resource Inventory vegetation community metadata across the Study Area will be screened using ArcGIS software for the presence of older, more mature tracts of deciduous forest or mixed forest greater than 80 years old which the alternative corridors would cross. This is the age at which trembling aspen, a common, large diameter deciduous tree in the boreal region, attains a diameter at breast height (DBH) of 20 cm. Once more mature forest areas are identified; snag density survey plot locations will be distributed as evenly as possible across accessible areas. Snag density surveys will be conducted across these plots, with the primary objective of generating a quantitative index of habitat suitability across mature treed areas across the Study Area. Snag density will be calculated as the total number of snags recorded for all plots within a contiguous candidate habitat site, divided by the total area surveyed. All snags >10cm DBH will be recorded and given a snag classification according to applicable MNRF protocols.

Bat Acoustic Surveys

Acoustic surveys will be conducted with the primary objective of determining the presence or absence of bats along the LSA as well as the species diversity thereabouts. Acoustic recordings will be collected concurrently at multiple locations at a time, using Song Meter SM3BAT (Wildlife Acoustics Inc.) full-spectrum, ultrasonic recording devices. Each detector will be paired with a Wildlife Acoustics SM3-U1 ultrasonic, omnidirectional microphone using a 3 m microphone cord. Detectors will be located in open areas along linear habitat features, such as watercourse and clearing edges, in proximity to deciduous ecosites with trees of large DBH. Microphones will be positioned approximately 10 m from the forest edge in an attempt to make recordings in a low-clutter environment; thus, maximizing the clarity and quality of recorded echolocation calls for more accurate species identification.

Bat recordings will be analyzed using the acoustic analysis program Kaleidoscope Pro (Wildlife Acoustics), which auto-identifies each recording by comparing the acoustic pulses to a known reference library and by identifying species-specific characteristics of each pulse (i.e., frequency, slope, duration). Recordings will be identified to species, where possible. In instances where identification cannot be assigned definitively to one species, the recording will be assigned a grouping that best encompasses the identifying characteristics of the pulses therein.

Breeding Birds

Inventories for migratory and year-round resident bird species that are expected to nest within the project Study Area will be conducted using principles of the *Forest Bird Monitoring Program* as well as the *Ontario Breeding Bird Atlas* survey protocols. These protocols are described in the MNRF's publication *Wildlife Monitoring Programs and Inventory Techniques* (Konze and McLaren, 1997) and the *Ontario Breeding Bird Atlas Participants Guide* (OBBA 2001). Breeding bird point counts will be conducted at pre-determined stations, positioned in distinct habitat types, such as coniferous forest, mixed forest, deciduous forest, open country, and thicket. These surveys will be completed during the bird nesting period, between May 24 and July 10th in the morning, between one half hour before sunrise and 5 hours after sunrise. Each count station will have a point-count duration of ten minutes and will be surveyed twice during the bird nesting period at least ten days apart.

Data collected during point count surveys will be summarized to calculate the total diversity present within the study area, total diversity at each count station, relative abundance at each station, species densities per habitat type, the number of Partners in Flight (PIF) species observed, and the locations of observed species.

Marsh Birds

Marsh birds will be noted opportunistically during morning breeding bird surveys. Data collected during point count surveys will be summarized to identify wetland bird species using the Study Area and the identification of the Significant Wildlife Habitat (SWH) waterfowl nesting areas type.

Reptiles and Amphibians

Reptile and amphibian observations will be noted opportunistically during breeding bird surveys and other ground surveys within accessible amphibian habitat breeding features, such as marshes, fens, bogs, thicket swamps, and treed swamps identified during the background data review.

Data collected with regards to incidental reptile and amphibian observations will include, date, time started, weather conditions (wind, temperature, cloud cover, and precipitation), UTM location, species observed, call level, number of individuals, and distance from observer. In the event that frogs are heard calling, call level will be recorded. Call levels will include: "0 – None heard; 1 – Individuals can be counted, calls not overlapping"; "2 – Numbers of some individuals can be estimated or counted, others overlapping"; and "3 – Full chorus, calls continuous and overlapping, individuals not distinguishable."

Aquatic Habitat Surveys

Aquatic habitat surveys will be conducted in reaches at or near the proposed crossings. The methodology will be generally based on the *Ontario Stream Assessment Protocol* (Stanfield 2017) and other applicable protocols.

For each waterbody, habitat variables such as location, waterbody name, watershed name, flow regime (ephemeral, intermittent, or permanent), waterbody type (watercourse, or lake/pond), and thermal regime (cold, cool, or warm) will be documented, where available. Stream morphology habitat types, such as riffle, rapids, run, flat, pool, impoundment, and backwater, will be visually assessed in the survey reach (O'Neil and Hildebrand, 1986). Other habitat variables, such as bank-full width, wetted width, water depth, in-situ water quality/chemistry measurements (temperature, pH, conductivity, total dissolved solids, and dissolved

oxygen), turbidity, water quality samples, instream cover, substrate type and fish passage barriers will be recorded. Fish community sampling will be conducted in watercourses that are wadable. Based on the habitat features observed, the overall aquatic habitat value in each waterbody will be rated as either Nil, Low, Moderate, High, or Unknown.

The habitat will also be described in terms of potential fish use and the sensitivity of the habitat at or near the proposed crossing. The habitat sensitivity will be rated based on the available spawning, migration, rearing and overwintering habitat potential and will be evaluated and assigned a fish habitat sensitivity value of Low, Moderate, or High.

VEGETATION SURVEYS

Sample locations will focus on deriving representative vegetation classifications within the Study Area as a whole.

Plots will be assessed following the Ontario Parks datasheets for Vegetation Plot Layers, and Groundcover/Substrate Plot Information (See sample datasheets attached). Key vegetation information collected for each layer (canopy, sub-canopy, understorey tree/shrubs, dwarf shrubs, herbaceous, moss/lichen, etc.) will include: percent cover, species composition, species percent cover, and any other comments. For those plots where tree height exceeds 10 m, a diameter at breast height (DbH) measurement will be taken for a representative tree of each dominant or codominant species. No ages of trees will be recorded.

At each sampling point, a soil sample will be taken using a hand auger to establish whether soils are organic, or mineral, as well as the texture of any mineral soils. Mottling of soils, or presence of gley will be noted along with depth to bedrock and water table where applicable. Soil cores will be taken to a depth of 30 cm (unless prevented by bedrock or stone cover). Where depth exceeds 30 cm, the depth of soils will be assumed to be moderately deep (30-60 cm) for purposes of determination of moisture regime and drainage class. Groundcover, including woody debris, will also be recorded.

Based on the field data, each site will be assigned a V-type (or W-Type) and ecosite based on the appropriate regional Ecosystem Classification (Sims et al., 1997; Racey et al., 1996; Chambers et al., 1997; Taylor et al., 2000). These will be translated to the appropriate provincial ecosites based on *Ecosites of Ontario: Boreal Range* (Banton et al., 2009) for each plot and extrapolated to similar un-sampled areas within the Study Area to develop the final study area wide vegetation classifications used to determine impacts. Based on the potential for variable mapping information, this will give flexibility in terms of finding best fits and common terminology between the field generated data and mapping.

6.2.2 Physical Environment

In addition to the review of secondary source information available for the project area, the primary field methods for collection of data for the physical environment will include, but are not limited to, the following:

- Ground Penetrating Radar (GPR) Survey;
- LiDAR survey to assess terrain/topography;
- Geotechnical drilling to characterize soil and groundwater conditions; and
- Surface water sampling.

6.2.3 Socio-Economic Environment

Methods to characterize and describe the existing socio-economic environment in the Study Area for the Project will be achieved through a literature review and direct consultation and engagement with Indigenous communities, including use of Indigenous Knowledge. This will include data from Statistics Canada, Indigenous Services Canada, websites of Indigenous communities, municipalities and provincial agencies, and background reports available from governmental agencies. Information will also be drawn from other studies in the area including, but not limited to, the *All-season Community Road Pre-feasibility Study* (Eabametoong, Webequie, Neskantaga and Nibinamik First Nations, 2016), *All-season Community Road Study – Phase 2* (Webequie and Nibinamik, 2017) and Noront's *Eagle's Nest Environmental Impact Statement/Environmental Assessment Report* (Noront, 2013).

6.2.4 Cultural Environment

Consultation and engagement with Indigenous communities, including receiving Indigenous Knowledge information where available, will be used to characterize and describe the existing cultural environment. This will include, but not limited to, key aspects, such as Aboriginal Rights, Treaty Rights, and interests and current use of lands and resources for cultural purposes (e.g., hunting, trapping, fishing, gathering) of importance to Indigenous communities.

In accordance with requirements under the under the *Ontario Heritage Act,* a Stage 1 Archaeological Assessment will be undertaken to describe existing archaeology potential in the Study Area for the Project. The assessment will be completed by a licensed archaeologist in accordance with the Ministry of Tourism, Culture and Sport *Standards and Guidelines for Consultant Archaeologists* (2011). The methodology for the assessment will involve review and research of geographic and historical features and land use history of the preferred corridor and its surroundings. A key data source will be WFN and other Indigenous communities for information on traditional land use areas, sacred sites and other cultural aspects. The purpose of the Stage 1 Archaeological Assessment will be to evaluate in detail the preferred corridor's archaeological potential (i.e., the likelihood that the area contains archaeological resources). In addition, the Study Area will be reviewed to determine if there are any known and/or potential built heritage resources and cultural heritage landscapes of value.

6.2.5 Published Sources of Information

Table 6-1 presents a list of the preliminary published sources of information to be used to determine the existing environmental conditions.

Table 6-1: Published Sources of Information for Existing Conditions

Source of Information	Document
Banton et al.	Ecosites of Ontario: Boreal Range (2009)
Birds Ontario (Bird Studies Canada, OFO, ECCC, Ontario Nature, MNRF)	Ontario Breeding Bird Atlas (OBBA) (2007)
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	Wildlife Species Assessments

Source of Information	Document
Committee on the Status of Species at Risk in Ontario (COSSARO)	Ontario Species at Risk (May 2000)
Committee on the Status of Species at Risk in Ontario (COSSARO)	Species at Risk in Ontario (SARO) List
Environment and Climate Change Canada	Species at Risk in Canada (SARA) List
Federation of Ontario Naturalists	Ontario Mammal Atlas (1994)
Noront Resources Ltd.	Eagle's Nest Project - Federal/Provincial Environmental Impact Statement/Environmental Assessment Report (2013)
Webequie and Nibinamik First Nations	Baseline Environmental and Geotechnical Studies Report - Webequie Community Supply Road (TPA1B) and Nibinamik-Webequie Community Road (TPA1A) (2018)
Eabametoong, Webequie, Neskantaga and Nibinamik First Nations	All-season Community Road Study (2016)
Ministry of Environment, Conservation and Parks	Environmental assessments, registry and approvals database
Ministry of the Environment, Conservation and Parks	Model Municipal Noise Control By-Law Noise Pollution Control Guideline (NPC) Construction Equipment, Publication NPC-115 (NPC-115) (1978)
Ministry of the Environment, Conservation and Parks	Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning, Publication NPC-300 (NPC-300) (2013)
Ministry of Transportation (MTO), Fisheries and Oceans Canada (DFO), MNRF	Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings (2013)
Ministry of Natural Resources and Forestry	Significant Wildlife Habitat Technical Guide (2000)
Ministry of Natural Resources and Forestry	Significant Wildlife Habitat Ecoregion Criteria Schedules (2012)
Ministry of Natural Resources and Forestry	Ontario's Woodland Caribou Conservation Plan (2009)
Ministry of Natural Resources and Forestry	Bat Survey Protocol for Treed Habitats (2017)

Source of Information	Document
Ministry of Natural Resources and Forestry	Wildlife Monitoring Programs and Inventory Techniques for Ontario (1997)
Ministry of Natural Resources and Forestry	Land Information Ontario (LIO) (2016)
Ministry of Natural Resources and Forestry	Survey Protocol for Eastern Whip-poor-will in Ontario (2014)
Natural Heritage Information Centre	Biodiversity Explorer Database
Natural Heritage Information Centre (NHIC)	Rare Vascular Plants (1999)
NHIC, MNRF	Ontario Herpetofaunal Summary Atlas (2000)
Ontario Nature	Ontario Nature Reptile and Amphibian Atlas
Phair, C., Henson, B.L., and Brodribb, K.E.	Great Lakes Conservation Blueprint for Aquatic Biodiversity. Volume 2: Tertiary Watershed Summaries (2005)
Royal Ontario Museum (ROM)	Field Guide to Freshwater Fishes of Ontario (2008)
Statistics Canada	Census Profile and National Household Survey (2016)

6.3 Natural Environment

The following sections document the existing natural environment (biological and physical components) conditions in the Study Area for the Project. All information collected as part of the natural environment field program and obtained through Indigenous Knowledge transfer from WFN and other Indigenous communities will be used in the EA to determine the preferred corridor and to identify potential effects and proposed mitigation measures for the Project. Information collected for the EA may also be used by WFN to obtain other permits, approvals and/or licences that may be required to proceed to construction.

General Environmental Setting

The Study Area for the Project lies within the Ontario Shield Ecozone Region of Northern Ontario. This ecozone is known for the Precambrian bedrock, as well as many wetlands and large rivers and streams, which flow to Hudson Bay (Crins et al, 2009). Bogs and fens also dominate the region, with forest stands on higher ground formed on glacial materials, such as eskers or next to rivers. The Study Area is within the Big Trout Lake Ecoregion.

Hydrologically, the project area is situated within the primary Southwestern Hudson Bay watershed (refer to **Figure 6.2** information extracted from the 2017 All-Season Community Road Study). The area includes parts of the Winisk-Coast, Ekwan-Coast and Attawapiskat-Coast secondary watersheds, and falls within the following three (3) tertiary watersheds:

- Attawapiskat – Pineimuta River, Muketei River, Attawapiskat River;
- Winisk – Fishbasket River, Wapitotem River; and
- Ekwan – Ekwan River.

The Attawapiskat River flows in a generally easterly direction to James Bay and the Winisk and Ekwan River systems flow north to Hudson Bay.

Portions of the preferred corridor for the all-season road traverse intact boreal forest (including bogs and fens). The terrain is generally low gradient with large wetland areas, several lakes and ponds, and slow flowing, often meandering streams and rivers. Upland areas are common along river banks and associated with glacial till deposits. These areas, with contrasting vegetation due to much better drained soils, constitute a relatively low percentage of the landscape in the area. Poplar trees dominate upland glacial till deposits, while dense spruce trees typically dominate the stream and river banks.

6.3.1 Geology, Terrain and Soils

Surficial geology consists of exposed bedrock as well as large moraines. Much of the surficial deposit is dominated by silt, and silt clay deposits as a result of glaciolacustrine deposition from post-glacial Lake Agassiz. The landscape is weakly broken, with low lying ridges of clay and sand, and extensive peatlands in low lying areas (Crins et al., 2009).

Terrain and topography are generally flat, with some localized relief. Large stretches of the preferred corridor pass through water logged areas/marshes exhibiting poor ground condition with deeper peat and organics and poor drainage.

The Study Area is characterized by predominantly flat, poorly drained soils with slow rates of plant decay. As a result, the development of organic soils and peat is common throughout much of the area. The organic surface layer typically ranges from 1 to 2 metres in thickness. It is underlain by a clay/silt till layer of up to 2 m thick, and a Quaternary till layer up to 5 m thick. Depth to bedrock ranges from 5 to 12 m below the surface.

Surficial material in the region consists of unstratified post-glacial till interspersed with bedrock outcrops and stratified till. The surficial material in the Study Area is predominantly silty clay to silt matrix, commonly clast poor with high carbonate content. Soil development in the region varies depending on drainage. Low lying areas consist of organic soils, while better drained soils are regosolic.

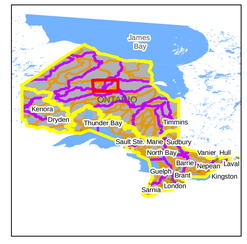
Glaciofluvial esker deposits are common in the project area. Eskers are ridges that typically consist of a core of stratified sands and gravels. In esker deposits, the soils are much better drained, there is little surface organic material, and the groundwater table is further below the surface. Eskers are of particular interest for the caribou habitat values analysis at the sub-range and range scales. Being a small proportion of the landscape, eskers may have functions proportionally greater than their area alone might suggest.

Webequie Supply Road

Figure 6.2

Watersheds and Subwatersheds

Watershed Context Map



Legend

- Preliminary Webequie Supply Road
- Primary Watersheds
- Secondary Watersheds
- Tertiary Watersheds
- Watercourses
- Waterbodies

N
W E
S

0 3.5 7 10.5 14 km

Coordinate System: NAD 1983 Ontario MNR Lambert
Projection: Lambert Conformal Conic
Datum: North American 1983

WSR
WEBEQUIE
SUPPLY ROAD

6.3.2 Groundwater and Surface Water

From data available near McFaulds Lake area (Noront, 2013) groundwater is present in the saturated organic material and in unstratified and stratified glacial till (composed of sand, silt and clay). There is also groundwater present in the near surface and deep bedrock. Hydraulic conductivities (K) are on the order of 10^{-4} m/s in the coarser overburden soils, 10^{-6} m/s for the organic soils, and as low as 10^{-7} m/s in the finer soils and bedrock. In general, the hydraulic conductivity of bedrock generally decreases with depth. The groundwater levels in region are thought to range from 0 to 4.9 m below ground surface, with seasonal fluctuations between 0.5 and 1.5 m.

Stream systems are cut minimally into the landscape, and have low slope and slow flows. Due to low relief and low permeability soils, the streams are connected to the overburden aquifer and are not typically connected to deeper bedrock aquifers. The groundwater table in the overburden is typically at or near the surface due to the flat terrain and underlying low permeability silts and clays. Where the low permeability overburden material exists, the shallow overburden aquifer is isolated from groundwater in the deeper bedrock. The permeability of the bedrock is expected to decrease with depth so, in general, the most permeable bedrock aquifer will occur along the bedrock/overburden interface.

The Study Area has many different types of waterbodies, including streams, rivers, lakes, ponds and wetlands (over 50% of the ecoregion is covered by wetlands). There are several larger rivers in the area, including the Winisk, Ekwan, Attawapiskat, Fishbasket and the Pineimuta Rivers. There are also some very large lakes, such as Winisk Lake in the northeast part of the Study Area. There is also a vast network of smaller connected headwater streams, ponds and lakes. Many of these smaller streams are part of open fens. Streams in the region are low gradient and have low velocity flow throughout most of the year. The stream banks are typical of low gradient streams and are well defined by earth, boulders, bedrock outcrops and natural levees. Beaver dams are common features on small to medium sized streams. Stream flow peaks in the spring as a result of snowmelt runoff and rainfall runoff from saturated soils. Flows recede through the summer and increase in the fall due to an increase in rainfall and a decrease in evaporation. Flows are normally lowest in winter, and some small streams freeze completely to the stream channel bed. Snowfall is an important component of the hydrologic cycle in the region, as accumulated snow represents a significant stored water component.

6.3.3 Terrestrial Wildlife and Habitat

MAMMALS

A background data review for mammal occurrence in proximity to the Project indicated that 41 mammal species may occur in the region. This total is largely based on data presented in the *Atlas of the Mammals of Ontario* (AMO) (Dobbyn, 1994).

During the Noront Eagle's Nest Mine EA, winter tracking surveys were conducted in 2011 and 2012 at three general locations along the proposed all-season road and one location around the Eagle's Nest Mine site. The EA surveys detected a total of 16 mammal species, the most abundant of which included American Marten, Snowshoe Hare, Fisher, Moose, Gray Wolf, and Red Fox (Noront, 2013). Wolverine was also recorded during the surveys. Three of the four tracking study areas occurred along the preferred corridor for WSR, and between 11 and 13 species were recorded at each area.

Wildlife surveys were conducted by SNC-Lavalin in 2017, as reported in the *Baseline Environmental and Geotechnical Studies Report - Webequie Community Supply Road (TPA1B)* and *Nibinamik-Webequie*

Community Road (TPA1A) (2018). The results of the 2017 survey produced records of 10 mammal species, of which 4 were seen or heard and 6 were recorded based only on the presence of sign, such as tracks, scat, gnaw marks, and houses. A list of these recorded species is presented in **Table 6-2.** A total of 9 mammal species were recorded across TPA1A route, while 3 species were recorded across TPA1B route. All recorded species recorded have been reported by the AMO and, with the exception of Woodland Caribou, were accounted for through winter tracking surveys.

A group of 7 caribou and a single caribou were recorded. Woodland Caribou is a Species at Risk (SAR) listed as *Threatened* and is protected under the *Species at Risk Act, 2002* (SARA). The forest-dwelling population of Woodland Caribou is also listed as *Threatened* and is protected under Ontario's *Endangered Species Act, 2007* (ESA). An estimated 5,000 to 7,000 forest-dwelling Woodland Caribou remain in Ontario. Within the RSA, the area of highest Caribou occupancy forms a broad band, averaging 110 km wide, straddling the ecotone between the boreal shield and the Hudson Bay lowlands. The WSR preferred corridor is situated within this high-occupancy band. Further discussion of SAR and the likelihood of occurrence in the Study Area is presented in Section 6.3.6.

Table 6-2: Mammals Recorded During 2017 Wildlife Surveys

Common Name	Latin Name	SARA (federal)	ESA (provincial)	Route Observed
American Marten	*Martes americana*	-	-	TPA1A
American Mink	*Mustela vison*	-	-	TPA1A/ TPA1B
Beaver	*Castor canadensis*	-	-	TPA1A
Moose	*Alces americanus*	-	-	TPA1A
Gray Wolf	*Canis lupus occidentalis*	-	-	TPA1A
Red Fox	*Vulpes*	-	-	TPA1A
Red Squirrel	*Tamiasciurus hudsonicus*	-	-	TPA1A/ TPA1B
Snowshoe Hare	*Lepus americanus*	-	-	TPA1A
Weasel Sp.	*Mustela sp.*	-	-	TPA1A
Woodland Caribou	*Rangifer tarandus caribou*	Threatened	Threatened	TPA1B

BAT AND BAT HABITAT

A review of range maps from Bat Conservation International (2017) indicate that five bat species may occur along preferred corridor for the Project. These species include Big Brown Bat (*Eptesicus fuscus*) Silver-haired Bat (*Lasionycteris noctivagans*), Hoary Bat (*Aeorestes cinereus*), Little Brown Myotis (*Myotis lucifugus*), and Northern Myotis (*Myotis septentrionalis*). Of these species, Little Brown Myotis, Northern Myotis, Big Brown Bat, and Silver-haired Bat are cavity roosting bats, while Hoary Bat is a foliage-roosting

bat. Wildlife habitat survey conducted in October 2017, as part of the baseline studies for Webequie Community Supply Road was not conducted during the active season for bats, thus no attempts to record bats were made. Nonetheless, searches for candidate bat SWH types, including hibernacula and maternity colony habitat were conducted at survey sites.

Two bat Significant Wildlife Habitat (SWH) types are recognized for Ecoregion 3W, which include maternity colonies or maternity roosting habitat and hibernacula (MNR, 2017b). During the spring and early summer, most Ontario bat species rely on forest habitat that supports a healthy density of large-diameter cavity trees. Females form maternity colonies in tree cavities that provide a warm, humid microclimate that optimizes gestation and postnatal growth of offspring (Kunz and Anthony, 1982). Trembling Aspen is a tree species commonly found within the Study Area for the Project and may provide suitable maternity roosting habitat by way of woodpecker holes in old trees suffering from heart-rot (Parsons et al., 2003; Psyllakis and Brigham, 2006).

In northern Ontario, bats typically hibernate in caves or abandoned mine shafts or adits, as well as underground foundations. Caves and mine shafts are the important features. Hibernacula are often associated as components of either cliff or rock barren ecosites (MNRF 2017b). Suitable hibernacula maintain winter temperatures slightly above freezing, have little air circulation and relative humidity is high. From the 2017 surveys, no habitat features indicative of bat hibernacula, such as caves, karst, old mine shafts, or otherwise were observed during field surveys – either by air, or on foot. Mid-age aspen-dominated deciduous forest was present at one waterbody crossing; however, no cavity trees or snags were observed in this forest patch.

Further surveys for occurrence of bats and bat habitat will be conducted as part of the EA.

BIRDS

A review of secondary sources indicates that at least 130 bird species occur in proximity to the preferred corridor for the Project. In 2009, AECOM (2010) conducted a baseline bird survey in the area of the proposed Eagle's Nest mine site recording 31 species. As a result of field studies conducted in 2010, the MNRF (Phoenix, 2010; 2013) also compiled a list of 96 breeding bird species for the Ring of Fire region. In 2011 and 2012 field studies, point count surveys were conducted at 176 sample plots, distributed among five infrastructure locations and six major habitat types in proximity to the proposed all-season road corridor (Noront, 2013). This study resulted in the detection of 82 bird species (Noront, 2013).

A total of 42 bird species were observed during the 2017 survey, as reported in the *Baseline Environmental and Geotechnical Studies Report - Webequie Community Supply Road (TPA1B) and Nibinamik-Webequie Community Road (TPA1A)* (2018). Of these, six had never been previously recorded in the aforementioned studies, including Great Gray Owl, Rough-legged Hawk, Snow Bunting, Lesser Scaup, Tundra Swan, and American Tree Sparrow. With the exception of Great Gray Owl and Lesser Scaup, it is expected that these species were non-breeding migrants that were passing through the area on route to their wintering grounds.

The six most frequently occurring breeding bird species for the regional study area in decreasing order, were Swainson's Thrush, White-throated Sparrow, Yellow-rumped Warbler, Ruby-crowned Kinglet, Hermit Thrush and White-winged Crossbill (Noront, 2013).

Waterfowl Stopover and Staging (Aquatic)

Waterfowl stopover and staging SWH consists of water bodies used for migration including ponds, marshes, lakes, bays, and coastal inlets (MNRF 2017b). This includes reservoirs managed as large wetlands or a pond/lake but excludes sewage treatment ponds and storm water ponds used by waterfowl. Areas that host annual staging of Ruddy Ducks, Canvasbacks, Trumpeter Swans or Tundra Swans are considered significant.

The preliminary 2017 baseline survey of waterfowl stopover and staging areas along the preferred corridor for the Project was flown in October, during the later peak of waterfowl migration in Ontario. While a total of over 1000 waterfowl are known to occur in the Study Area only 11 species were recorded during the 2017 survey. Many lakes and wetlands surveyed did not have any waterfowl present. Species recorded included Canada Goose, Tundra Swan, Mallard, Green-winged Teal, Lesser Scaup, Ring-necked Duck, Bufflehead, Common Goldeneye, Common Merganser, Red-breasted Merganser, and Hooded Merganser. Bufflehead was the most widely observed and numerous waterfowl species along the preferred corridor.

Eagle and Osprey Concentration Area and Nesting Habitat

Eagle and Osprey concentration area SWH consists of large river systems and merging lakes that are used by these species as hunting locations in spring, fall, or winter for several years (MNRF 2017b). Trees regularly used for perching and areas that are used for feeding or as winter/nocturnal roosting sites are considered SWH.

Eagle and Osprey nesting habitat SWH are associated with lakes, ponds, rivers or wetlands along treed shorelines, islands, or on structures over water (MNRF 2017). Osprey nests are usually at the top of a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy.

Bald Eagle was recorded at two locations along the preferred corridor from the 2017 bird surveys for WSR. No habitat features were observed that might provide suitable nesting habitat. However, it is expected that suitable perching and foraging habitat for Bald Eagles is not limiting in proximity to the corridor due to the abundance of lakes and watercourses in the area.

No Osprey or Osprey nests were observed along the preferred corridor during the 2017 survey.

Woodland Raptor Nesting Habitat

A review of existing information revealed that 11 woodland-nesting raptor species have been recorded in proximity to the Study Area for the Project, including Sharp-shinned Hawk, Cooper's Hawk, Northern Goshawk, Broad-winged Hawk, Red-tailed Hawk, Merlin, Barred Owl, Boreal Owl, Great Horned Owl, Long-eared Owl, and Northern Hawk-Owl. Based on the Noront Baseline Terrestrial Studies: Birds report (Noront, 2013), coniferous forest, mixed forest, and deciduous forest covered a combined 33% (542,791 ha) of their regional study area. Deciduous and mixed forests are most likely to provide large diameter trees (typically *Populus sp*.) suitable for supporting stick-nests or large cavities for cavity- nesting species comprised 8% (126,937ha).

From the 2017 baseline survey for the WSR, at least three hawk species, including Red-tailed Hawk, Rough-legged Hawk, Northern Harrier, were recorded, as well as a single Great Gray Owl. Of these, only Red-tailed Hawk and Great Gray Owl use woodland raptor nesting habitat. Common Raven was also

recorded. Two stick nests that were likely used by either hawk or large owl species or Common Raven were observed from the helicopter.

REPTILES AND AMPHIBIANS

A review of background information available, including the Ontario Reptile and Amphibians Atlas, indicates that five amphibians and two reptiles may occur within the Study Area for the Project. During studies conducted in support of the proposed Noront Eagle's Nest Mine, five frog species, including American Toad, Boreal Chorus Frog, Northern Leopard Frog, a Spring Peeper, and Wood Frog were recorded (Noront 2013). Eastern Garter Snake was also recorded along each study section across of the transportation corridor (Noront, 2013).

According to the Ontario Reptile and Amphibian Atlas, Ontario's most northerly turtle species, Western Painted Turtle and Snapping Turtle (*Chelydra serpentine*) do not occur further north than Woodland Caribou Provincial Park, which has a similar altitude to Pickle Lake. The Midland Painted Turtle does not occur further north than Pukaskwa National Park, on the eastern shoreline of Lake Superior. As a result, it is unlikely that turtles and turtle SWH, such as Turtle Wintering Areas and Turtle Nesting Areas, occur within the Study Area for the Project.

6.3.4 Vegetation and Wetlands

The Study Area is located within the Big Trout Lake Ecoregion (Ecoregion 2W), a large ecoregion stretching from the Manitoba border to the Hudson Bay Lowlands.

Forest dominates the ecoregion's landscape, covering approximately 50% of the ecoregion. The majority of this is coniferous forest, with a smaller component of mixed forest, and deciduous forest pockets growing along river valleys (Crins et al. 2009). Wetland (30%), open water (12%) and burns occupy the rest of the ecoregion. The burn area in this ecoregion is the highest percentage of any in Ontario. Black Spruce dominates both upland and lowland sites with Jack Pine and White Birch and Poplar species as associates. The shrub layers tend to be dominated by ericaceous shrubs, willow, and alder. The ground cover primarily consists of mosses and lichens, low ericaceous shrubs, and some herbs. Bedrock exposures have fewer trees and greater lichen cover lichens. Closed to open stands of stunted black spruce with ericaceous shrubs and a ground cover of sphagnum moss dominate poorly drained peat-filled depressions.

VEGETATION COMMUNITIES

From the review of available information sources and the 2017 field surveys of the preliminary corridor for WSR, the following is a description of the vegetation communities in the Study Area. Further vegetation assessments in accordance with established regional and provincial protocols along the preferred corridor will be undertaken as part of the EA, including conduct additional seasonal (spring/fall) surveys to capture early and late flowering species and develop a comprehensive three season species list for Study Area.

In summary, from the 2017 baseline vegetation survey for WSR the majority of the forest sites (68%) were dominated by coniferous trees, usually either Black Spruce (*Picea mariana*), or Jack Pine (*Pinus banksiana*). As well, approximately16% of the sites surveyed were classified as mixed treed and 16% as deciduous treed. Deciduous trees were typically Balsam Poplar (*Populus balsamifera*), Trembling Aspen (*Populus tremuloides*), and White Birch (*Betula papyrifera*). Wetland sites were mainly coniferous swamps with the majority falling into this Land Cover type (68%), typically dominated by Black Spruce. The

remainder of the sites of the sites surveyed were classified as Sparse Treed Fen, Open Fen and Thicket Swamp.

Vegetation has been grouped according the Far North Land Cover Classification system and is briefly described as follows.

Coniferous Treed

The coniferous treed Land Cover type was the most commonly found community type in the Study Area and one which contains the most variability. Eight different boreal ecosites were recorded in this community type. Canopy height varied, but was typically greater than 10 m with tree cover of greater than 60%. The dominant canopy species was Black Spruce, or Jack Pine. Jack Pine dominated sites often had strong regeneration of Black Spruce in the understorey, likely reflective of previous fire events. Balsam Poplar and Trembling Aspen were also present at some sites as smaller components of the canopy. Tall shrub growth was typically sparse consisting of Alder species when present. Low shrub growth was variable, dominated commonly by Labrador Tea (*Ledum groenlandicum*) with other common species including Leatherleaf (*Chamaedaphne calyculata*), and Bunchberry (*Cornus canadensis*). Moss cover was variable, though generally more prevalent at Black Spruce sites. Feathermoss species were the most common component, frequently dominating sites. Sphagnum species were occasionally found in depressions at wetter sites. Lichens were present at most sites, principally Reindeer Lichen (*Cladina rangiferina*) and Coral Lichen (*Cladina stellaris*).

Mixed Treed

The mixed treed Land Cover category found in the Study Area displayed three different boreal ecosites. Canopy height was greater than 10m with tree cover of more than 60%. Tree species were Black Spruce, Jack Pine, Trembling Aspen, Balsam Poplar, White Birch, and Tamarack (*Larix laricina*). Tall shrubs were present, usually mixed with sub-canopy trees, and consisted mainly of Green Alder (*Alnus viridis*), and Speckled Alder (*Alnus incana*) with occasional willow species (*Salix sp.*). Low shrub growth was fairly sparse with Labrador Tea, Prickly Rose (*Rosa acicularis*), Bunchberry, and Velvet Leaf Blueberry (*Vaccinum myrtilloides*) being the most common species. Moss cover was sparse at most sites with Feathermosses the most consistently present, other moss species including Ground Cedar (*Lycopodium complanatum*) and Ground Pine (*Lycopodium obscurum*) were present in lower abundances.

Deciduous Treed

This Land Cover category contained 4 sites consisting of three boreal ecosites. Canopy height was greater than 10 m, and greater than 20 m at most sites. Dominant canopy species were Balsam Poplar and Trembling Aspen with Jack Pine also present at some sites. Subcanopy growth was variable consisting mainly of poplar species along with White Birch. Black Spruce was also present in subcanopy. Tall shrub growth was variable consisting of mostly alder with some willow. Common low shrubs included Prickly Rose, Velvet Leaf Blueberry, and Bunchberry with Labrador Tea also present. Moss cover was sparse at most sites, although one site had significant feathermoss coverage. Other moss species included Ground Pine, Ground Cedar as well as Club Moss species.

Coniferous Swamp

The coniferous swamp Land Cover type was the most common wetland type. Three boreal ecosites were associated with this category, two of which are differentiated by organic versus mineral soils. Canopy height

was variable with some sites under 10 m and some over 20 m, but the majority of sites had canopies between 10-20 m. Black Spruce was the dominant canopy species at all sites, and usually dominated subcanopy layers as well. Tamarack was present as a canopy species at some sites. Tall shrub growth was sparse and typically restricted to Speckled Alder. Low shrub growth was variable, but quite dense at some sites. Labrador Tea was the most common species, occurring at almost all sites and often dominant. Leatherleaf and Dwarf Birch (*Betula nana*) were also present at wetter sites. Moss coverage was near complete at all sites. Sphagnum species were generally dominant, with Feathermosses also present and, in some cases, codominant.

Sparse Treed Fen

The sparse treed fen Land Cover type surveyed had one boreal ecosite associated with this category. Canopy height was generally less than 10 m and sparse. Tamarack was the primary tree species with Black Spruce also present. Tall shrubs were also sparse typically consisting of willow species where present. Low shrubs included Dwarf Birch, Leatherleaf, Bog Rosemary (*Andromeda polifolia*), and occasionally Red Osier Dogwood (*Cornus stolonifera*). Ground cover was a combination of Sphagnum mosses and herbaceous growth consisting of grass and sedge species with most sites having primarily herbaceous cover.

Open Fen

Two of the survey sites in 2017 were open fen with two boreal ecosites included in this Land Cover type. Trees were rare consisting of Tamarack or more rarely Black Spruce usually less than 2 m tall. Tall shrubs, where present, consisted of Speckled Alder and willow species. Low shrubs present include Leatherleaf, Dwarf Birch, and Bog Rosemary. Ground cover is dominated by grass and sedge species.

Rare Plant Species and Communities

Based on previous work conducted by Noront (2013) a list of rare plant species and plant communities was generated for the region from their contact with the MNRF, which covers the Study Area for the Project. During the 2017 field surveys for the WSR none of the plants identified in the list were observed. However, based on the timing of the surveys the presence of these species will be reassessed as part of the further field surveys to be completed to support the EA.

6.3.5 Fish Habitat and Aquatic Ecosystems

The Study Area for the Project has many different waterbodies including streams, rivers, lakes, ponds and wetlands that provide direct habitat and support many different fish species. There are several larger rivers in the area including the Winisk, Ekwan, Attawapiskat, Fishbasket and the Pineimutei River. There are also some very large lakes such as Winisk Lake in the northeast part of the Study Area. There is also a vast network of smaller connected headwater streams, ponds and lakes. Many of these smaller streams are part of open fens. The larger lakes and watercourses provide year-round fish habitat, the smaller, shallower lakes and wetlands often do not, as oxygen levels can drop to hypoxic conditions. The smaller watercourses and lakes can also provide suitable habitat for rearing and feeding for some parts of the year, usually early spring.

There are a vast number of streams in region that connect to many shallow lakes and wetlands in the area. Water bodies in the Study Area in general are considered to support a variety of cool and cold-water fish. Large rivers including the Ekwan, Muketei, Attawapiskat and Ogoki support populations of Walleye (*Sander*

vitreus), Lake Sturgeon (*Acipenser fulvescens*), Brook Trout (*Salvelinus fontinalis*), Lake Whitefish (*Coregonus clupeaformis*) and other fish species. A number of lower energy watercourses connected to these rivers provide habitat for Walleye and Northern Pike (*Esox lucius*). Typically, Yellow Perch (*Perca flavescens*), White Sucker (*Catostomus commersonii*) and other small foraging fish species are present with these larger bodied fish. Smaller streams and lakes in the area also support a variety of smaller-bodied fish including cyprinid species, Brook Stickleback (*Culaea inconstans*) and Mottled Sculpin (*Cottus bairdii*).

There are 39 fish species that have been identified as potentially present within the Study Area for the Project through the review of various sources and are presented in **Table 6-3.**

Table 6-3: Fish Species Potentially Within Study Area

Family	Systematic Name	Common Name
Acipenseridae	*Acipenser fulvescens*	Lake Sturgeon
Cyprinidae	*Couesius plumbeus*	Lake Chub
	Margariscus margarita	Pearl Dace
	Luxilus cornutus	Common Shiner
	Notropis atherinoides	Emerald Shiner
	N. heterolepis	Blacknose Shiner
	N. hudsonius	Spottail Shiner
	N. volucellus	Mimic Shiner
	Notemigonus crysoleucas	Golden Shiner
	Margariscus nachtriebi	Northern Pearl Dace
	Chrosomus eos	Northern Redbelly Dace
	Chrosomus neogaeus	Finescale Dace
	Pimephales notatus	Bluntnose Minnow
	Pimephales promelas	Fathead Minnow
	Rhinichthys cataractae	Longnose Dace
Catostomidae	*Catostomus catostomus*	Longnose Sucker
	Catostomus commersonii	White Sucker
	Moxostoma anisurum	Silver Redhorse
	Maxostoma macrolepidotum	Shorthead Redhorse
Esocidae	*Esox lucius*	Northern Pike
Salmonidae	*Coregonus artedi*	Cisco
	Coregonus clupeaformis	Lake Whitefish
	Salvelinus fontinalis	Brook Trout
	Salvelinus namaycush	Lake Trout
	Prosopium cylindraceum	Round Whitefish
Percopsidae	*Percopsis omiscomaycus*	Trout-Perch
Gadidae	*Lota lota*	Burbot
Gasterosteidae	*Culaea inconstans*	Brook Stickleback
	Pungitius pungitius	Ninespine Stickleback
Cottidae	*Cottus bairdi*	Mottled Sculpin

Family	Systematic Name	Common Name
	Cottus cognatus	Slimy Sculpin
	Cottus ricei	Spoonhead Sculpin
Percidae	*Etheostoma exile*	Iowa Darter
	Etheostoma nigrum	Johnny Darter
	Perca flavescens	Yellow Perch
	Percina caprodes	Logperch
	Percina shumardi	River Darter
	Sander canadensis	Sauger
	Sander vitreus	Walleye
Sciaenidae	*Percina caprodes*	Logperch

*list of fish species present in the area was generated using MNR and Royal Ontario Museum (ROM) species distribution data (Holm et al., 2010).

FISH HABITAT

From review of background information sources and 2017 aquatic surveys for WSR, as documented in the *Baseline Environmental and Geotechnical Studies Report - Webequie Community Supply Road (TPA1B) and Nibinamik-Webequie Community Road (TPA1A)* (2018) surface waters in the Study Area flow in a general west-to-east direction, towards James Bay and also a northerly direction to Hudson Bay. Through much of the area, surface waters move as diffuse flow through broad, densely vegetated fens, with occasional consolidation in defined channels. Many of these channels appear as pools of open water (usually created by beaver dams) that are connected to larger watercourses by narrow, poorly defined channels, or by fens without recognizable channels. Frequent ponding, flooding of treed areas and diversion of flows occur due to beaver activity, and many of the pools of open water visible on topographic maps and satellite imagery are the result of old, stable beaver dams. An abundance of fen and beaver-pond habitats exist along the preferred corridor. The abundant beaver dams pose barriers to fish passage and potential for stranding. The poor water quality (specifically, low dissolved oxygen) in these small watercourses can also pose a severe limitation to their overall productivity and suitability to most species.

Due to a lack of coarse substrate in the smaller streams, fish that require rapids or riffle habitats for during the spring period spawning likely spawn in the larger rivers (e.g. Pineimuta River and Fishbasket River), possibly on bedrock and boulder shoals due to a lack of gravel substrate.

Burbot is the only winter-spawning fish in the Study Area, and it is generally found in lake and large-river habitats. Burbot spawn in a fairly broad range of habitats, and specific spawning habitats in the Study Area have not been identified.

The fall-spawning species in Study Area include Lake Whitefish and Cisco, which are predominantly lake dwelling species. These species occasionally ascend rivers and the lower reaches of large streams (Scott and Crossman, 1973). Of the watercourses within the Study Area, the potential for presence of these species is likely limited to the larger rivers and lakes (e.g. the Pineimuta and Fishbasket Rivers, Winisk Lake) Lake Whitefish and Cisco are likely absent in the many smaller streams within the Study Area.

As part of the EA for the project aquatic investigations will be conducted to collect data on biophysical habitat conditions and sensitivity, spawning habitat, species at risk, surface water quality and fish community present in the Study Area.

6.3.6 Species at Risk

The designation of species of national significance is given by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The designation of species of Provincial significance is made by the MNRF and is based on recommendations made by the Committee on the Status of Species at Risk in Ontario (COSSARO).

A preliminary list of Species at Risk potentially present in the Study Area is presented in **Table 6-4.**

The EA will assess and document the general locations of known incidences of Species at Risk, endangered and threatened species, and species of special concern in the Study Area. This information will be based on targeted field surveys in 2019, MNRF's "Species at Risk in Ontario List", the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) list, Environment Canada species at risk search tool (http://www.registrelep-sararegistry.gc.ca/), NHIC databases, as well as known locations based on personal communications, published and unpublished information, such as Indigenous Knowledge gathered through Indigenous consultation.

Table 6-4: Species at Risk Status, Habitat Characteristics, and Preliminary Presence/Absence Determination

Species		SARA[1]	ESA[2]	S-RANK[3]	Information Source[4]	Observed During Field Studies	Habitat Requirements[5]	Potential Habitat in Local Study Area
Scientific Name	Common Name							
MAMMALS								
Puma concolor	Mountain lion (Cougar)	No Status	Endangered	SU	Atlas of the Mammals of Ontario	No	The Cougar or Mountain Lion lives in northern remote undisturbed forests where there is little human activity. However, few cougar sightings have been confirmed in recent decades. Forested habitats must support plenty of White-tailed Deer (*Odocoileus virginianus*) and other prey species for cougars.	No
Myotis lucifugus	Little Brown Myotis	Endangered	Endangered	S3	Layng et al., 2019		Caves, quarries, tunnels, hollow trees, buildings, attics, barns, wetlands, forest edges	Yes
Gulo gulo	Wolverine	Special Concern	Threatened	S2S3	Atlas of the Mammals of Ontario	Yes	Wolverine occupy many habitat types in the far north of Ontario. Individuals can have ranges of up to 3500 km^2 and dens are built in snow drifts, under logs and boulders (Ontario Wolverine Recovery Team, 2013).	Yes

Species		SARA[1]	ESA[2]	S-RANK[3]	Information Source[4]	Observed During Field Studies	Habitat Requirements[5]	Potential Habitat in Local Study Area
Scientific Name	Common Name							
Rangifer tarandus	Woodland Caribou	Threatened	Threatened	S4	Atlas of the Mammals of Ontario	Yes	Caribou require large undisturbed areas of old and mature conifer upland forest and lowlands dominated by jack pine and/or black spruce. They are also found in bogs and fens. Only the boreal population of caribou is listed as a species at risk in Ontario.	Yes
				BIRDS				
Haliaeetus leucocephalus	Bald Eagle	No Status	Special Concern	S2N, S4B	OBBA		Prefer to nest in large trees almost always near a major lake or river where they do most of their hunting.	Yes
Hirundo rustica	Barn Swallow	Threatened	Threatened	S4B	iNaturalist, eBird		Prefer open habitat for foraging: grassy fields, pastures, ROWs, agriculture crops, and wetlands. Post-European settlement: Nest in human structures including barns, garages, houses, bridges, and culverts. Barn swallows generally reuse nests from year to year and are	Yes

Species		SARA[1]	ESA[2]	S-RANK[3]	Information Source[4]	Observed During Field Studies	Habitat Requirements[5]	Potential Habitat in Local Study Area
Scientific Name	Common Name							
							therefore sensitive to the removal of nesting structures.	
Chliodonias niger	Black Tern	No Status	Special Concern	S3B	Noront		Shallow freshwater marshes (> 20 ha.) with cattails and emergent vegetation interspersed with open water. Smaller wetlands with the same features are also used.	No
Chordeiles minor	Common Nighthawk	Threatened	Special Concern	S4B	OBBA		Open ground; clearings in dense forests; peat bogs; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs.	Yes
Contopus virens	Eastern Wood-pewee	Special Concern	Special Concern	S4B	Noront		Mostly associated with the mid-canopy layer of forest clearings and edges of deciduous and mixed forests; preferred habitats are intermediate-age forest stands and mature stands with little understory vegetation.	No
Contopus cooperi	Olive-sided Flycatcher	Threatened	Special Concern	S4B	OBBA		Semi-open, conifer forest, prefers spruce, Jack Pine, and Balsam Fir; near pond, lake, or river; treed wetlands for nesting;	Yes

Species		SARA[1]	ESA[2]	S-RANK[3]	Information Source[4]	Observed During Field Studies	Habitat Requirements[5]	Potential Habitat in Local Study Area
Scientific Name	Common Name							
							burns with dead trees for perching.	
Falco peregrinus anatum/ tundrius	Peregrine Falcon	Special Concern	Special Concern	S3B	OBBA		Nests on cliff ledges or crevices, preferably 50 to 200 m in height, but sometimes on the ledges of tall buildings or bridges, always near good foraging areas.	No
Euphagus carolinus	Rusty Blackbird	Special Concern	Special Concern	S4B	OBBA		Nests in the boreal forest; prefers shores of wetlands, peat bogs, swamps, and beaver ponds.	Yes
Asio flammeus	Short-eared Owl	Special Concern	Special Concern	S2N, S4B	OBBA		Resides in open habitats including arctic tundra, grasslands, peat bogs, marshes, sand-sage concentrations and old pastures. Preferred nesting sites are dense grasslands, as well as tundra with areas of small willows.	No
				FISH				
Acipenser fulvescens	Lake Sturgeon (Southern Hudson Bay -	No Status	Special Concern	S3	DFO Species at Risk		Resides almost exclusively in lakes and rivers with soft bottoms of mud, sand or gravel. They are usually found at depths	No

Species		SARA[1]	ESA[2]	S-RANK[3]	Information Source[4]	Observed During Field Studies	Habitat Requirements[5]	Potential Habitat in Local Study Area
Scientific Name	Common Name							
	James Bay population)				Mapping, NHIC		of 5 to 20 metres. They spawn in relatively shallow, fast-flowing water (usually below waterfalls, rapids, or dams) with gravel and boulders at the bottom	

[1] Federal Species at Risk Act

[2] Species at Risk in Ontario List. (2014, August 11). Ministry of Natural Resources and Forestry. Retrieved September 12, 2014, from http://www.ontario.ca/environment-and-energy/species-risk-ontario-list

[3] Conservation Ranking

[4] Various sources

[5] MNRF Significant Wildlife Habitat Technical Guide Appendix G (MNRF, 2000) Ontario Ministry of Natural Resources.
Significant Wildlife Habitat Technical Guide. 151p.

Status

No Status: Species has not been assessed under the Species at Risk Act.

Special Concern: Species that may become threatened or an endangered species because of a combination of biological characteristics and identified threats.

Threatened: Species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.

Endangered: Species that is facing imminent extirpation or extinction.

6.3.7 Climate

The James Bay Lowlands region of northern Ontario has a humid continental climate with cool short summers and cold long winters. The local climate is affected by the proximity to Hudson Bay and James Bay. Fog is common in the early morning and may last all day during the summer months. There is usually one or two days of dense fog in the summer that restrict the use of aircraft. There are typically two or three days during the winter months when snow storms restrict activity in the region. Summer temperatures typically range between 10-20 degrees C, with winter temperatures usually between -10 degrees C and -30 degrees C. Winter winds are typically from the west to northwest, with the summer winds usually from the west to southwest. Lakes typically begin to freeze in mid-October, with spring thaws typically initiating in mid-April. Precipitation levels in the area tend to exceed 700 mm on yearly basis.

6.3.8 Air Quality

The Project is located in a remote region of Ontario away from any significant sources of human induced air emissions. Air quality data from several monitoring stations in northern Ontario (e.g. Thunder Bay) and other remote locations in Canada will be used to estimate concentrations of background air quality parameters for the Project. All of the background air quality values reviewed in the region are well below the applicable Ontario Ambient Air Quality Criteria (AAQC) and lower than the Canadian Ambient Air Quality Standards (CAAQS). The EA will evaluate existing studies of air quality, potential project emission sources, and review Indigenous Knowledge gathered through Indigenous consultation and information from stakeholders. Potential project emission sources will be evaluated against regulatory standards in the EA.

6.3.9 Acoustic Environment

Background noise levels are consistent with rural and remote areas dominated by natural sounds (Ministry of the Environment Class 3 Area). In the absence of the sounds of wind and local animals, such areas would typically have a background noise level of 20 to 30 dBA. Noise surveys conducted by Noront for the Eagle's Nest Mine confirmed ambient noise levels of 25 to 37 dBA, which are expected to be indicative of the noise levels in the Study Area.

6.4 Socio-Economic Environment

The following sections document the existing socio-economic environment in the Study Area for the Project. Information collected for the EA may also be used by WFN to obtain other permits, approvals and/or licences that may be required to proceed to construction.

6.4.1 Regional Planning/Policy Initiatives

The Project is subject to both federal and provincial planning policy initiatives that dictate how projects will be undertaken. The principal planning and policy documents related to the rationale for the Project are cited in Section 1.4.2 and summarized in **Appendix A**. Two other important provincial regional planning/policy initiatives that will influence how the ToR and the EA are undertaken are the *Far North Act*, and the *Planning Act*.

The *Far North Act* governs land use planning decisions in the Far North by working with First Nation communities to identify areas where development can occur, and areas that should be protected. The main purpose of the Act is to establish land use planning that:

- Establishes a joint planning process between First Nation communities and the Government of Ontario;
- Supports environmental, social and economic objectives for land use planning in Ontario; and
- Is conducted in a manner consistent with the recognition and affirmation of existing Aboriginal and treat rights enshrined in section 35 of the *Constitution Act*, 1982, including the duty to consult.

The Far North is defined in the Act as:

(a) the portion of Ontario that lies north of the land consisting of,
  (i) Woodland Caribou Provincial Park,
  (ii) the following management units designated under Section 7 of the Crown Forest Sustainability Act, 1994 as of May 1, 2009: Red Lake Forest, Trout Lake Forest, Lac Seul Forest and Caribou Forest,
  (iii) Wabakimi Provincial Park, and
  (iv) the following management units designated under Section 7 of the Crown Forest Sustainability Act, 1994 as of May 1, 2009: Ogoki Forest, Kenogami Forest, Hearst Forest, Gordon Cosens Forest and Cochrane-Moose River, or

(b) the area, if any, that is set out in the regulations made under this Act and that describes the area described in clause (a) more specifically ("Grand Nord").

Section 12(1) of the *Far North Act* stipulates that constructing or expanding all-weather transportation infrastructure and any other infrastructure that is associated with it cannot occur without a community-based land use plan (CBLUP) in place. However, s. 12(2) of the Act includes provisions for exemption from this stipulation through the issuance of an exception order by the Minister of Natural Resources and Forestry. Section 12(4) of the Act allows the activity granted an exception to occur if the Lieutenant Governor in Council determines that the development is in the social and economic interests of Ontario. Preparation of the Webequie CBLUP is in progress, and WFN applied to MNRF for an exception order for the Supply Road Project on January 29, 2018. The application was accepted by the Minister on March 2, 2018.[3]

The *Planning Act* establishes guidelines for land use planning decisions in Ontario. The purpose of the Act is to

- Promote sustainable economic development in a healthy natural environment within a provincial policy framework;
- Provide for a land use planning system led by provincial policy;
- Integrate matters of provincial interest into provincial and municipal planning decisions by requiring that all decisions be consistent with the Provincial Policy Statement and conform/not conflict with provincial plans;
- Provide for planning processes that are fair, by making them open, accessible, timely and efficient;
- Encourage co-operation and coordination among various interests; and
- Recognize the decision-making authority and accountability of municipal councils in planning.

[3] It should be noted that the Province is proposing to repeal the *Far North Act*, amend the *Public Lands Act* to continue approved community based land use plans, and, for a time-limited period, enable completion of the planning process for communities that are at an advanced planning stage. The proposal is intended to "(reduce) red tape and restrictions on important economic development projects in the Far North including the Ring of Fire, all-season roads and electrical transmission projects for communities."

Under the Act, the Minister of Municipal Affairs and Housing may issue Provincial Policy Statements (PPS), which are province wide policy directions related to land use planning and development.

Of particular importance for this project is the 'Places to Grow, Growth Plan for Northern Ontario" published by the Municipal Affairs and Housing, which documents the growth plan for Northern Ontario for the next 25 years. The plan has a goal of strengthening Northern Ontario's economy through the following (MMA, 2011):

- Diversifying the region's traditional resource-based industries;
- Stimulating new investment and entrepreneurship; and
- Nurturing new and emerging sectors with high growth potential

These two pieces of regional planning/policy initiatives will be important in guiding the planning process for the Webequie Supply Road Project.

6.4.2 Economy, Resource, Commercial and Industrial Activities

The economy of Northern Ontario relies heavily on resource extraction, with the forestry and mining industries acting as large industrial employers.

Northern Ontario communities and outfitters also provide recreation and tourism opportunities for hunting, fishing and camping, playing an important aspect of the Northern Ontario experience.

The EA document will describe and assess existing commercial, recreational, and industrial activities in the region and address potential effects on these sectors. Leaseholders, claim owners, Indigenous communities and other stakeholders will be consulted as part of the EA process. Indicators used to describe the economy and employment will be detailed (employment, income, etc.). The EA will also address economic development and economic sectors, businesses, governmental finances, and housing characteristics.

Consultation with Indigenous communities and potential employment economic benefits for Indigenous communities which may result from the Project will be an important component of the Webequie Supply Road Project.

6.4.3 Population, Demographics and Community Profile

The Webequie First Nation has experienced increases in both their employment rates and their population rates since 2006. This has not been the same for much of Northern Ontario, or other Indigenous communities who may have an interest in the Project. The population of Northern Ontario has in general declined in recent years with many resource-based industries shutting down production or relocating. However, the Indigenous population is growing at a faster rate than that of Northern Ontario or Canada. According to the 2016 census the Indigenous population comprised of 2.8% of Ontario's population, an increase from 2.4% in 2011. The Indigenous population is a younger demographic than the non-Indigenous population. This is due to a higher fertility rate and increased life expectancy.

The 2011 Census shows that the employment rate of Webequie First Nation was 39.6% with an average income of $20,680. Remote Indigenous communities experience challenges due to their lower employment rates and average incomes when compared to averages to Ontario as a whole. This trend is not uncommon for many Northern Indigenous communities. This is due in part because of communities transitioning away from traditional manufacturing, agricultural based industries and resource development creating economic

pressures. In addition, many youth are out-migrating or living off-reserve to find other employment opportunities. This has led to impacts to employment prospects in the area. Projects such as the Webequie Supply Road may provide both skilled and unskilled workers with the opportunity to access employment opportunities in the McFaulds mining area.

The EA document will detail the existing state of communities and potential effects on the population and demographics, education, employment and housing in relation to the Project. This will include community profiles on the Indigenous Communities surrounding Webequie First Nation, including:

- Attawapiskat First Nation,
- Eabametoong First Nation;
- Kasabonika Lake First Nation,
- Marten Falls First Nation,
- Neskantaga First Nation,
- Nibinamik First Nation, and
- Weenusk (Peawanuck) First Nation.

This information will be documented through government statistics, plans, stakeholder engagement, and other sources.

6.4.4 Human Health

Human Health and well-being concerns will be addressed in the EA. Northern and remote Indigenous communities face many healthy and well-being issues due to their isolation. Mental health, substance abuse, suicide, food insecurity, and other health stressors are more prevalent among remote Indigenous communities. In addressing potential health issues, the Webequie Supply Road Project will examine human health and well-being by assessing potential changes in surface water, air quality, noise, and public safety (including social issues such as drugs and alcohol abuse in the community) likely to result due to project activities. These changes can act as pathways to potential effects on human health. These criteria will be drawn upon to inform human health and well-being assessments in the EA.

6.4.5 Infrastructure and Services

The proposed all-season road corridor will cross communities that may be able to provide waste management, municipal and community services, emergency services, police, and many other ancillary services. The construction portion of the Project will generate waste materials and access to disposal areas will be required.

In 2016, there were a total of 155 dwellings in Webequie First Nation. Remote Indigenous communities in Northern Ontario face challenges with their housing. Census data has shown that Indigenous people were much more likely to live in dwellings that were in need of major repairs. Families are also living in crowded with more than one person per room, compared to the average household in Ontario. Having safe and adequate housing is a major concern for Northern Indigenous communities as the quality and housing stock worsen. The EA document will describe available housing and infrastructure and services such as nearby road connections which have the potential to interact with or connect to the proposed project. In addition to this, the Project may also have the potential to interact with communities and services such as police and fire stations, hospitals, schools, churches and other religious buildings, local businesses, and residential areas.

The EA document will describe housing and infrastructure and services such as nearby road connections which have the potential to interact with or connect to the proposed project. In addition to this, the Project may also have the potential to interact with communities and services such as police and fire stations, hospitals, schools, churches and other religious buildings, local businesses, and residential areas.

6.4.6 Land and Resource Use

The project area is located on unsurveyed Ontario Crown lands and Webequie Frist Nation Reserve lands. Although Webequie First Nation holds the position that provincially registered traplines do not represent spatial limits of traditional use by their members, for reference purposes, it can be stated that the project area intersects traplines registered to Webequie First Nation and Marten Falls First Nation community members. A total of 17 km of the project corridor sits on federal land comprising the Webequie First Nation Reserve, as shown in Figures 1.1 and 6.1.

Webequie First Nation is in the process of preparing a Community Based Land Use Plan (CBLUP) in accordance with the Ontario Far North Act, which provides the authority, purpose, and process for community-based land use planning. Webequie First Nation started the CBLUP process in 2011 and expects to complete the process by December 2020. The location of the proposed Webequie Supply Road corridor is consistent with the recommended land use areas and designations in the Webequie Draft CBLUP. Specifically, the alternative concepts are located primarily in the designated areas of "General Use Area" (GUA) and "Other Areas", with a minor segment located within an "Enhanced Management Area" (EMA).

The Project will require access to, and the use, occupation, exploration, and development of lands and resources currently used for traditional purposes by Indigenous communities. The current Draft Webequie First Nation CBLUP (March 2019) recognizes that there is shared territory with other First Nations within the lands that Webequie has identified as its proposed planning area, including areas shared with Neskantaga and Marten Falls that would be occupied by the Webequie Supply Road corridor. In addition to Marten Falls and Neskantaga, to date, Attawapiskat First Nation, Weenusk (Peawanuck) First Nation and Kasabonika Lake First Nation have asserted that they have shared traditional territory with Webequie First Nation, but have not specified as to whether these areas coincide with the project area (refer also to acknowledged shared areas within the Webequie Draft Community Based Land Use Plan area below). Due to the draft status of the CBLUP, and the fact that Plan development discussions between Webequie, Neskantaga and Marten Falls are ongoing, the shared areas cannot be shown at this time. No mapping of traditional territory can be provided for confidentiality reasons.

According to the Ontario Ministry of Energy, Northern Development and Mines' Strategic, Network and Policy Division (J. Paetz correspondence to SLI dated April 1, 2019), there are 56 active, unpatented mining claims and one mining lease nearby or overlapping the proposed WSR corridor. The crown land tenure and claim holders within the mineralized zone in the McFaulds Lake area includes the following entities, as identified by ENDM:

- Noront Resources Ltd.
- Macdonald Mines Exploration Ltd.
- Canada Chrome Corporation
- Abitibi Royalties Inc.
- Metalex Ventures Ltd.
- Aurcrest Gold Inc.
- De Beers Canada Inc.

- Fancamp Exploration Ltd.
- Superior Exploration Ltd.
- Debut Diamonds Inc.
- Platinex Inc.
- Perry Vern English
- Michael Albert Haveman
- Clark Exploration and Consulting Inc.

Other information regarding land and resource use along the proposed road corridor will be collected through engagement and consultation activities, and review of various published and unpublished sources and Indigenous Knowledge information made available by First Nations communities, and will be documented in the EA.

6.5 Cultural Environment

From the perspective of the WFN and other Indigenous communities the cultural environment encompasses a broad series of aspects for consideration and evaluation in the EA. Specifically, this includes, but not limited to:

- Aboriginal and Treaty rights;
- Current land resource uses such as hunting, gathering, fishing and trapping within their traditional territories for cultural and socio-economic purposes;
- Socio-cultural character of remote communities (i.e., language, traditions, etc.) and potential for outside influences of non-indigenous peoples;
- Built heritage resources (e.g., hunting or trapping camps, etc.,) and/or cultural landscapes (e.g., natural feature – river or hill) that may have spiritual and symbolic meaning to Indigenous communities; and
- Known burial or scared sites of cultural importance to communities.

A description of the existing cultural environment from an Indigenous perspective will be gathered from Indigenous Knowledge information received from communities and will be documented in the EAR/IS.

6.5.1 Cultural Heritage Resources

A Stage 1 Archaeological Assessment will be conducted in 2019 to identify and confirm areas of archeological potential. The findings from this assessment will be documented in the EA and a stand-alone report that will be submitted for approval to the Ministry of Tourism, Culture and Sport. To assess potential effects to archaeological resources, the Stage 1 Archaeological Assessment will involve consultation with Indigenous communities, review of existing published data sources and information obtained from other stakeholders and agencies. Archaeological research to date for the region suggests that the area was occupied by humans as early as 7,000 years before present. These early humans, known as the Shield Archaic Culture, tended to locate themselves near caribou river crossings. Previous archaeological research has also shown that ungulates and fish were exploited by Aboriginal peoples from circa 1000 A.D. to contact with Europeans (Noront, 2013).

Evidence also suggests that the region was intensively used during the historic fur trade. Previous research has indicated that the area is located within a region that was explored by the mid-to-late 18th century. Additionally, there is a history of mining in the region spanning from the early 20th century until the present (Noront 2013).

The preferred corridor is also situated approximately 15 km south of Winisk River Provincial Park that is a cultural heritage landscape feature of interest. Landforms in the park include a large moraine and drumlin field. Geological features include the Sachigo Subprovince, Big Beaverhouse Moraine, Winisk Drumlin Field, and Cochrane Advance.

7 Potential Environmental Effects

The Project will likely result in a number of potential environmental effects, which will be identified and assessed as part of the EA. Potential environmental effects as result of the Project can be positive or negative, direct or indirect, short-term or long-term, and can occur throughout all of the project phases (construction, operation and maintenance, and retirement). The environmental effects will be evaluated on the basis of their direction (positive, negative or neutral), magnitude, geographic extent, duration, frequency and reversibility, using applicable criteria and indicators to be developed during the EA.

The assessment will incorporate input from potentially affected and/or interested Indigenous communities, government agencies, the public and stakeholders. It is expected that a broader and more detailed range of potential effects will be identified once the final baseline studies are completed and the results of the consultation and engagement program have been considered. It is possible that some of the potential effects, such as impacts to wildlife movement from the development of a linear road corridor, and increased human access to remote areas, may require more detailed field investigations or surveys to determine their full extent/scope. As part of the assessment, consideration will also be given to confirming whether environmental effects of the Project could combine with effects of other past, present and proposed future developments (cumulative effects).

Additionally, as part of the effects assessment process, WFN will document existing Aboriginal and Treaty rights, including traditional and current land uses and other socio-economic aspects. This process will include seeking Indigenous Knowledge information from Indigenous communities during the consultation/engagement program for the Project. Indigenous Knowledge information, where provided, will be integrated into all relevant aspects of the EA, but the data will remain proprietary property of the communities that provide it. The EAR/IS will describe Indigenous communities, their traditional uses of the land and their established and asserted claims, including accommodation as necessary to address potential effects to Aboriginal and Treaty rights. Section 10 of the ToR details the consultation process in greater detail. Design considerations and mitigation/remedial measures recommended to reduce or eliminate potential environmental effects will be described in the EAR/IS. Mitigation measures will be developed in consultation with Indigenous communities, government agencies, stakeholders and other interested parties.

The EA will also include an Environmental Protection Plan (EPP) specific to the construction and operation phases of the Project. The EPP will specify procedures and mitigation measures to be implemented to reduce or eliminate potential negative effects of the Project and will utilize standard industry guidelines and BMPs, with input from Indigenous communities. It is also anticipated that the EPP will include a series of contingency plans and management plans, such as a spill prevention and response plan, a waste management plan, an environmental contingency and emergency preparedness plan, and a blast management plan, should blasting be required.

The following sections provide a preliminary list of the potential environmental effects and mitigation associated with the Project. The list of potential environmental effects is initially based on the project components and activities described in Section 4.0 – Description of the Undertaking (the Project).

7.1 Natural Environment

Potential effects of the Project on the natural environment, such as soils, surface water and groundwater resources, vegetation, wildlife, fisheries, Species at Risk, noise and air quality, will be assessed.

A preliminary list of potential project effects on the natural environment, including mitigation measures, is presented in **Table 7-1.**

Table 7-1: Project Activities and Potential Effects on the Natural Environment

Project Component or Activity	Potential Effects	Mitigation Measures
• **Field surveys, staking and layout**	• Soil compaction and increased rates of erosion and sedimentation from equipment use and exposed soils	• Implement and monitor erosion and sediment control measures and BMPs, such as erosion control blankets, seed and cover/mulch to prevent erosion and/or control sediment from entering waterways
• **Vegetation Clearing and grubbing**	• Loss of wildlife habitat and/or direct impact to species from removal/clearing of vegetation	• Implement BMPs and procedures for clearing and grubbing. Manage slash and root waste and excess timber, using such techniques as chipping, leaving in place and small wood scattering • Avoid clearing of vegetation during migratory bird nesting season
• **Construction of supportive infrastructure that includes storage and laydown yards, access/haul roads, construction camps and aggregate extraction areas**	• Wildlife habitat alteration, fragmentation, displacement, migration or disturbance (e.g., migratory birds, species at risk) • Degradation of environmentally significant or sensitive areas • Increased rates of erosion and sedimentation from exposed land surface	• Avoid vegetation clearing during migratory bird nesting period and/or sensitive life cycle periods for Species at Risk (e.g., caribou, bats, etc.) • Restore and rehabilitate disturbed areas related to temporary infrastructure (e.g., access road, construction camp)
• **Construction of the road, including earthworks (cut/fill) and permanent and temporary waterbody crossings**	• Degradation of/alteration to surface water quality and flow, and/or fish habitat	• At waterbody crossings: ○ adhere to in-water work fisheries timing window during the spawning and rearing period ○ Install erosion and sediment control measures and use BMPs

Project Component or Activity	Potential Effects	Mitigation Measures
		○ Isolate and temporarily diverting flow away from work zone ○ Use appropriate capture, handling and release techniques to avoid harm to fish
Aggregate source extraction and production	• Impact to groundwater level, quality, and/or functional contribution to waterbodies or wetlands	• Monitor groundwater conditions for adverse effects
• **Emissions, discharges and waste**		
○ **Transport, handling and storage of fuel for equipment and vehicles**	• Release of contaminants from incidental spills of oil, gasoline and other chemicals that contaminate soil, groundwater or waterbodies	• Store, handle and dispose of all excess materials in a manner that prevents release to the environment (e.g., waterbodies, wetlands) • Operate, maintain and store (e.g., fuel, lubricates, waste oils) all equipment and materials using BMPs
○ **Handling and disposal of waste oil, lubricants and other fluid products from the maintenance of equipment and vehicles**	• Accidental spill/discharge of contaminants to sensitive areas, including aquatic and terrestrial habitat	• Develop Spill Prevention and Response Plan and procedures, including containment systems and spill kits on site for deployment
○ **Storage, handing and disposal of solid waste**		• Manage waste products generated from camps for disposal at licenced waste facility
○ **Management and/or disposal of wastewater and sewage, including hazardous and non-hazardous,**		• Wastewater and sewage to be treated on-site using portable facilities or transported off-site by tanker truck for treatment and disposal off-site

Project Component or Activity	Potential Effects	Mitigation Measures
generated at camp sites		
○ **Air emissions from movement and exhaust of equipment and vehicles**	• Degradation to localized air quality from equipment and vehicles (e.g., fugitive dust, exhaust emissions)	• Exhaust emission systems from construction and maintenance vehicles and equipment will be kept in good working conditions to ensure they conform to normal operational parameters for emissions • Implement dust control management practices (e.g., wetting surfaces with water) to minimize/reduce air quality effects
○ **Greenhouse (GHG) gas emissions**	• Greenhouse gas emissions will occur as result of the construction and operation of the Project. GHG, as expressed in carbon dioxide equivalent units ($ktCO_2eq$), contribute to climate change and are a concern to federal and provincial agencies and the public.	• GHG emissions from the Project are expected to be negligible because the emissions, although detectable, would be very small with respect to contributions to provincial, national and global emissions and would not be reportable when taking into account the implementation of mitigation measures. The preliminary estimate of GHG emissions attributable to the Project during construction is 73.2 kilotons of CO_2eq, and during the operations phase the annual contribution would be 11.8 kilotons of CO_2eq. These contributions in relation to Ontario and Canada-wide totals and future targets are below 0.05%.
○ **Noise emissions from equipment and vehicles**	• Increase in background noise levels during construction and operation phases with potential impact	

Project Component or Activity	Potential Effects	Mitigation Measures
	to sensitive receptors or wildlife • Blasting that could disrupt wildlife movement or harm fish/fish habitat where near a waterbody	
• **Operations and maintenance, such as road repairs, vegetation clearing**	• Wildlife mortality due to vehicle collisions during operations • Disturbance of roadside species and habitat and disruption of breeding/nesting behaviour	• Adapt/install wildlife barrier system. Increase awareness through worker training and roadside signage for drivers • Adapt/manage maintenance schedules and practices to avoid sensitive breeding/nesting periods

7.2 Socio-Economic Environment

Socio-economic impacts can be positive or negative; and can occur at various units of social order: individuals, businesses, communities and economic sectors. Both potential positive and negative socio-economic effects of all phases of the Project will be assessed as part of the EA process, including identifying appropriate mitigation/remedial measures to reduce or eliminate any significant negative effects.

Effects assessment linkages with other environmental disciplines will be determined, if applicable (e.g., links between socio-economic environment and visual aesthetics, noise, terrestrial and aquatic environments, and human health).

A preliminary list of potential socio-economic effects is presented in **Table 7-2.**

Table 7-2: Potential Effects to Socio-economic Environment

Potential Effects
Positive Effects/Benefits
Economic • Employment and economic benefits to community members and businesses of neighbouring Indigenous communities during construction and operation/maintenance • Emergence of economic opportunities along the road • Opportunity for WFN and other First Nations to own and/or construct and operate the road, including opportunity for revenue generation and potential for subsequent investment in economic development opportunities

Potential Effects
Education/Training • Opportunities for capacity building and business training • Opportunities for youth-employment and training • Possible higher overall educational levels and capacity **Social** • Higher household incomes from increased economic activity, allowing for Improved standard of living
Negative Effects
Social/Health • May result in easier access to undesirable substances, possibly causing more health and social issues in community • More outsiders coming into area, causing possible social issues **Economic** • Possible loss of government transfer payments currently paid to community due to change in remote isolation status • May facilitate more outsiders coming into community, such as resource users, that put strain on traditional territories for hunting, fishing, mineral resource exploration, as well as pressure on wildlife populations and movements

7.2.1 Effects on Traditional/Indigenous Land Use

The EA will specifically and directly consider potential project effects on Aboriginal and Treaty rights. Through WFN discussions and engagement/consultation with other Indigenous communities, the assessment will evaluate and take into account potential changes of patterns or resources use and the ability of communities to exercise their Aboriginal and Treaty rights.

The MECP has provided a list of twenty-two (22) Indigenous communities where WFN should undertake consultation and engagement activities. The list is MECP's current understanding of those communities whose Aboriginal and Treaty rights may be potentially affected by, and/or may have interests in the Project. At present, sixteen (16) of these Indigenous communities may be affected by the Project, whereas the other six (6) Indigenous communities are considered to have potential interest in the Project. A Consultation Plan to engage communities during the EA, including WFN's overall approach, is detailed in Section 10 of the ToR. The Consultation Plan outlines the degree and manner in which the identified Indigenous communities will be engaged and consulted.

7.3 Cultural Environment

The Project may have the potential to affect the cultural environment, including, but not limited to, the following areas of interest to Indigenous communities:

- Aboriginal and Treaty rights, which are the collective rights of Indigenous communities flowing from their status as the original peoples of Canada. These rights are recognized and affirmed by Section 35 of the *Constitution Act* (refer to above Section 7.2.1);
- Effects to land resource uses, such as hunting, gathering, fishing and trapping, within their traditional territories;
- Effects to the socio-cultural character of remote Indigenous communities (e.g., language, traditions, etc.) from potential outside influences of non-indigenous peoples;
- Loss of or adverse effects to archaeological sites and areas of archaeological potential, including those known cultural, spiritual or sacred sites; and
- Effects to built heritage resources (e.g., old hunting or trapping camps) and/or cultural/visual landscapes that may be of value or interest from a historic, spiritual and symbolic perspective.

To assess potential effects on the above noted cultural environment aspects, the EA will draw upon Indigenous Knowledge information gathered through consultation with Webequie community members, Elders and neighbouring First Nations.

To assess the potential effects of the Project on cultural heritage resources, as defined under the *Ontario Heritage Act*, a Stage 1 Archaeological Assessment will be undertaken as part of the EA to identify potential effects during all phases of the Project, including historical, archaeological and cultural sites. The requirements for Stage 1 Archaeological Assessment include Aboriginal consultation and engagement, and establishing protocols to be implemented in the event that unexpected archaeological finds are encountered during construction of the Project.

Should potential effects to historical, archaeological or cultural sites by the Project be identified during EA process, WFN will engage with potentially affected Indigenous communities and the Ontario Ministry of Tourism, Culture and Sport to review avoidance and other mitigation measure options.

As part of the EAR/IS, WFN will also develop an Archaeological Management Plan (AMP) in the event that the need for additional archaeological assessment is identified in the Stage 1 assessment, or previously unidentified heritage or archaeological resources (e.g., arrow heads, modified bone, pottery fragments, fossils) are suspected or encountered unexpectedly during construction.

In the case where additional archaeological assessment is recommended, the AMP will specify the assessment locations, the scope of the assessment (e.g., Stage 2 investigations), and how the work will be conducted.

With respect to encountering unknown archaeological resources during construction, typical contingency measures to be implemented by the construction contractor in such an event would include:

- Immediately stop work in the vicinity of newly discovered feature and notify Owner (assumed to be WFN);
- Work at that location will not resume until permission is received from the Owner, who will consult with a licensed archaeologist, Indigenous community(ies) if applicable, and/or MTCS for further direction; and
- Installation of temporarily flagging or fencing to create a 5 m buffer zone around the resource to protect the feature and wait for further direction from the Owner on the measures to follow.

8 Approach to Assessment and Evaluation of Effects

This section describes the proposed approach to carrying out the assessment and evaluation of environmental effects for the Webequie Supply Road Project. The effects assessment and evaluation will be completed on the proposed preliminary corridor, alternative routing alignments and supporting infrastructure elements (e.g., aggregate source sites) to accommodate the all-season road and potential future power/telecommunication lines. The Ontario *Environmental Assessment Act* requires an assessment of the potential environmental effects, evaluation of alternatives, description of impacts, identification of mitigation measures and description of the net effects of the Project on the environment.

The assessment approach for the Project will be guided by the Webequie First Nation Three-Tier approach to consultation/engagement, whereby neighbouring First Nations are engaged/consulted in a respectful manner that acknowledges and reflects the culture, traditions and beliefs of their people and ancestors, and the shared history and aspirations of its neighbouring communities. The Three Tier approach has been passed on through generations by Indigenous Knowledge Keepers and forms part of the Elders' Guiding Principles. The Three-Tier approach consists of a: Core Tier – Webequie First Nation; a Regional Tier – First Nation Neighbours and Government Agencies; and a Foundational Tier - Social and Economic Benefits from the Land. Details on the Three-Tier framework with respect to the approach to engagement and consultation are presented in Section 10 – Consultation.

The Webequie Project Team's approach to the assessment of effects is intended to satisfy the regulatory requirements of the Ontario *Environmental Assessment Act* and the federal *Impact Assessment Act*. The assessment will be based on the Ministry of the Environment and Climate Change *Code of Practice: Preparing and Reviewing Environmental Assessments in Ontario* (MOECC, 2014a) and the Impact Assessment Agency of Canada's Tailored Impact Statement Guidelines developed specifically for this project.

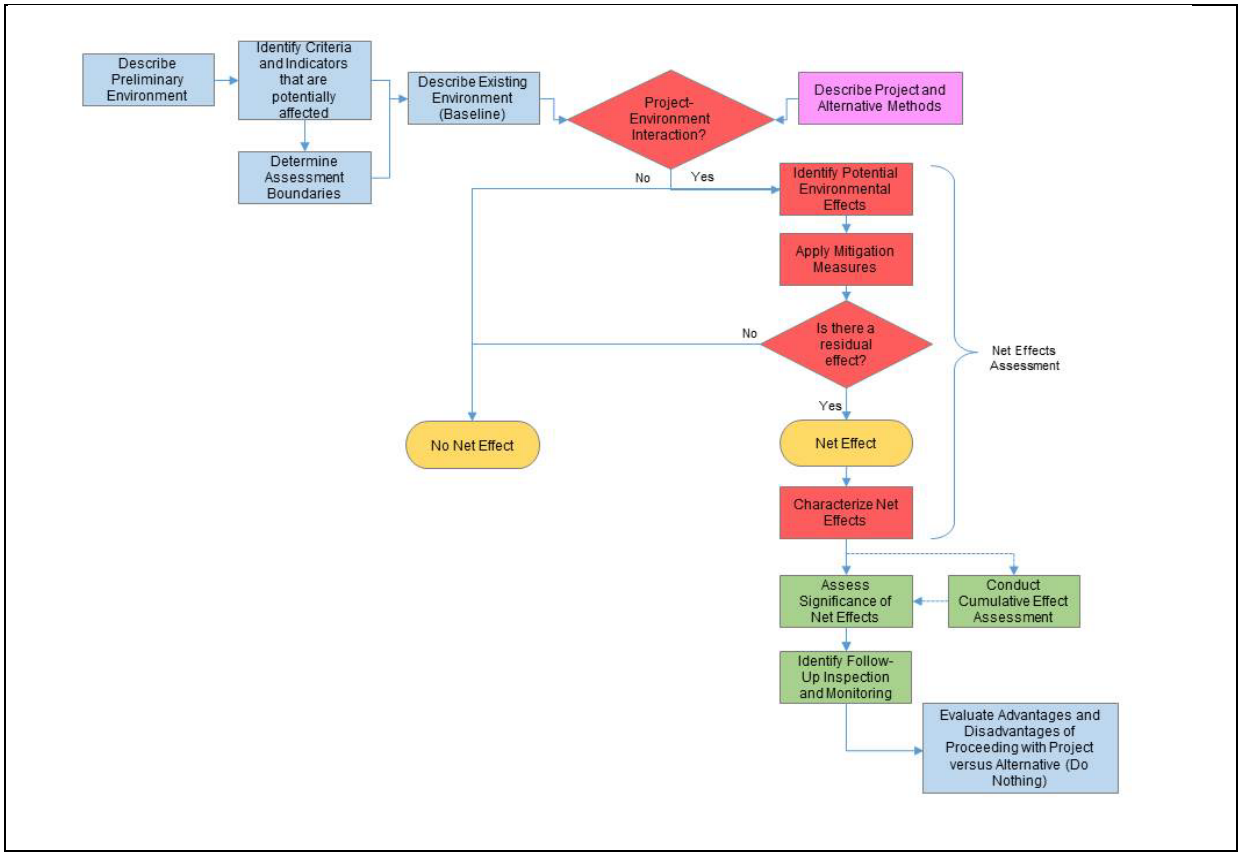
An overview of the effects assessment and evaluation approach is shown in **Figure 8.1** and involves the following steps:

- Describe the Project and the alternative methods of carrying out the Project;
- Identify project and environmental interactions of importance to First Nations and others that could result in measurable effects;
- Identify natural, socio-economic and cultural environmental factors (e.g., health and community well-being, education, employment, traditional land uses, spiritual/sacred sites, etc.) that could be potentially affected by project activities;
- Identify environmental criteria of value or interest (e.g., traditional land uses) that may interact with the Project and indicators (e.g., changes to harvesting, wildlife populations and their movement, etc.) for the effects assessment. A list of preliminary criteria and indicators for the environmental effects evaluation are discussed below and presented in Appendix B;
- Determine the assessment boundaries/study areas for each factor/criterion;
- Compile information on and characterize existing environmental baseline conditions based on Indigenous Knowledge from WFN and other Indigenous communities, as well as a combination of existing data/information sources and field programs;

- Assess net effects (positive and negative) of the Project, which involves:
  - Identify potential impacts and associated positive and negative environmental effects;
  - identify mitigation measures to address negative effects;
  - predict the net effects;
  - characterize the net effects (i.e., after mitigation measures) of the Project on environmental criteria;
- Assess the significance of the net effects (positive and negative);
- Conduct a cumulative effects assessment of the net effects of the Project in combination with other past, present, or reasonably foreseeable developments in the local and regional area and assess the significance of those effects;
- Identify follow-up, inspection, and monitoring programs that will be completed during and after construction to verify predication of the effects assessment and the effectiveness of mitigation measures. This would also include a compliance monitoring program to evaluate and demonstrate that the Project has been constructed and operated in accordance with commitments made in the EAR/IS; and
- Evaluate the overall advantages and disadvantages of proceeding with the Project against the Do Nothing Alternative.

A more detailed assessment method, including discipline-specific criteria and indicators, will be developed during the EA and presented in the EAR/IS.

Figure 8.1: Environmental Effects Assessment Approach



Source: East-West Tie Transmission Project Amended Environmental Assessment Report, Section 8. NextBridge Infrastructure, September 2018.

8.1 Identification and Evaluation of Alternatives

Section 6.1(2) of the *Environmental Assessment Act* (EA Act) requires proponents to conduct an alternatives assessment to demonstrate the advantages and disadvantages of the preferred alternative in comparison to other alternatives considered. As discussed in Section 5 of the ToR – Description of and Rationale for Alternatives, the Ontario EA process requires that two types of project alternatives be considered: "alternatives to" the undertaking (i.e., functionally different ways of addressing an identified problem or opportunity to arrive at the preferred planning solution) and "alternative methods" of carrying out the undertaking (options for implementing the preferred planning solution).

An assessment of alternatives to the undertaking to meet the project purpose as defined by WFN has been completed and is presented in Section 5.1 of the ToR. Alternatives to the undertaking (the Project) that were examined included: do nothing; upgrade the existing trail system to a seasonal winter road; alternative modes of transportation (hoverbarge, airship, rail); manage travel demand; and a new all-season road. Based on the evaluation, and having considered the balance of advantages and disadvantages of each alternative, the preferred alternative is the construction of a new all-season road between Webequie First Nation and the mineral exploration and proposed mine activities in the McFaulds Lake area, as described in Section 4 – Description of the Undertaking. A new all-season road is the most reasonable planning alternative, as it best meets the objectives of Webequie First Nation by providing new and enhanced opportunities to improve Webequie's economic and social well-being; and, given the current and projected available resources (people and financing), it is the likeliest alternative to be within Webequie's technical and economic abilities to implement. In addition, the preferred planning alternative is consistent with provincial government plans and policies for development of the region, including the Ring of Fire area.

Based on the conclusion from the assessment of alternatives to the undertaking, this ToR proposes that a focused EA be prepared in accordance with subsections 6(2)(c) and 6.1(3) of the EA Act. As such, the opportunities and goals of the Project have been clearly identified and the EA will not contain any further assessment of alternatives to the undertaking, but instead will focus on alternative methods of carrying out the Project.

With respect to determining alternative methods of carrying out the Project, it is relevant to understand the background of the various road/transportation studies that have been conducted in the Webequie First Nation/McFaulds Lake region over recent years, and Webequie First Nation's community-based land use planning process, to provide the context for the identification and screening of the alternative concept corridors for the WSR.

In addition to the previous transportation studies and Community Based Land Use Plan that is currently being prepared by Webequie, in 2017, WFN conducted an initial screening of supply road corridor alternatives of approximately 2 km in width between Webequie and mineral deposit area near McFaulds Lake. The screening and analysis of corridors was guided by a Local Working Group made up of community members of land users, harvesters, elders, and youth representatives. The corridor screening process included the identification of the advantages and disadvantages of three (3) corridor alternatives against the broad range of assessment factors (caribou habitat, culturally significant features, areas used for traditional activities, etc.), which were identified based on discussions with community members as to features and sensitivities that may be affected by the Project and what constituted valued environmental components for the community. The result of this community-based planning exercise was the identification of a preliminary preferred corridor for the WSR Project. As further described in Section 5 of the ToR, the community's initially preferred corridor has been overlain with terrain mapping and an additional preliminary

assessment to identify a geotechnical optimal route was conducted. This yielded the proposed initial alternatives to be carried forward for assessment in the EA, as shown in **Figure 5.11**.

Therefore, it is proposed that, in addition to the initial alternatives and with the benefit of additional engagement and consultation, the EA will further identify and evaluate routing alignment alternatives within the preferred corridor, including alternatives that optimize constructability and cost, as well as other alternative infrastructure designs (e.g., culverts or bridges at waterbody crossings) and siting with respect to temporary or permanent supportive ancillary infrastructure for the Project, such as access roads, construction camps, laydown/storage yards and aggregate extraction and processing sites. These alternative designs may be used to accommodate Indigenous community concerns, or address those issues raised by government agencies, the public or stakeholders. The assessment of alternative designs and/or locations will involve a comparative evaluation of the advantages and disadvantages against a set of natural environment, socio-economic environment and technical considerations (e.g., cost, constructability) to provide a clear rationale for the selection of a preferred alternative.

The principles for evaluating alternative methods are intended to yield a balanced design solution that maximizes the degree to which project opportunities can be realized, while minimizing significant adverse environmental effects. Significance of environmental net effects, including their characterization, will be determined during the EA process. It is anticipated that modifications to the project design will occur throughout the project planning process in conjunction with discussions with Indigenous communities, government agencies, the public and stakeholders. Evaluation methodologies will be fully documented within the EA.

8.1.1 Evaluation Criteria and Indicators

In order to evaluate alternative methods for carrying out the Project and effects of the undertaking, it will be necessary to establish criteria and indicators. Sufficient information about the criteria and indicators and how they will be developed is presented in the ToR to ensure the approach is understood by interested persons and communities, who are then able to provide informed comments. Each criterion will have one or more indicators that will identify how the potential environmental effects will be measured. A preliminary list of criteria and indicators is presented in **Appendix B** of the ToR. The preliminary list details the rationale for the selection of each of the proposed criteria and indicators, data sources, and an explanation about how each criterion and indicator may be further developed during the EA process. In general, the criteria, indicators and evaluation methods will be further developed, refined and finalized during the EA process in consultation with Indigenous communities, government agencies, the public and any other interested persons or groups. Some examples of the criteria and indicators proposed to be used for the EA are presented in **Table 8-1**.

Table 8-1: Select Preliminary Criteria and Indicators for Evaluation

Environment Factor	Criterion	Indicators
Natural Environment	Upland Ecosystems, Riparian Ecosystems and Wetlands	Change (hectares - ha) to upland ecosystems, riparian ecosystems and wetlands (not designated as Provincially Significant Wetland (PSW) Ecosystem availability Ecosystem distribution Ecosystem composition
	Fish and Aquatic Habitat - Brook Trout - Lake Trout - Walleye - Lake Sturgeon	Change to fish and Fish habitat • Number or area (ha) of waterbodies crossed • Fish spawning, nursery or rearing areas (ha) • Habitat quantity • Habitat quality
	Federal or Provincial Species at Risk (SAR) - woodland caribou - wolverine - little brown myotis - barn swallow - common nighthawk - olive-sided flycatche	Change to: • Habitat availability (i.e., quantity and quality) • Habitat distribution (i.e., configuration and connectivity) Survival and reproduction
	Wildlife and Wildlife Habitat	Changes to wildlife and wildlife habitat • Area (ha) of wildlife habitat crossed • Habitat availability (i.e., quantity and quality) • Habitat distribution (i.e., arrangement and connectivity) Survival and reproduction
	Significant Ecological Area (defined as an area of interest to the MNRF that is ecologically significant, and warrants special consideration, excluding Area of Natural and Scientific Interest (ANSI), parks or Reserves)	Number and/or area (ha) of Significant Ecological Areas effected
	Migratory Birds	Areas (ha) of migratory bird flyways, feeding habitat and resting areas

Environment Factor	Criterion	Indicators
Socio-Economic Environment	Traditional Land and Resource Uses (hunting, gathering, fishing, trapping)	Changes, disruption (number of sites) or loss (ha) of intensively used areas for traditional land use activities by community members
		Number of fish spawning areas affected
		Number of seasonal hunting areas affected
		Number of moose mating areas affected
		Area (ha) used for harvesting of plants for medicinal or human consumption affected
		Number of trap lines affected
	Commercial Activities and Labour Market	Change to employment and/or business-related activities
		Training opportunities
	Community Health and Well-being	Nuisance effects
		Changes in levels of public safety
		Changes in human health
	Mineral and/or Aggregate Resources	Area (ha) of significant aggregate deposits affected
		Area (ha) of mines within the study area affected
		Number of mining claims within the study area affected
		Area of pits/quarries (ha) within the study area affected
	Recreational Activities (camps, trails, outfitters, movement of small watercraft)	Number/types of activities affected
	Provincial Parks, Areas of Natural and Scientific Interest (ANSI's) or Conservation Reserves	Number and area (ha) of Provincial Parks, Areas of Natural and Scientific Interest (ANSI's) or Conservation Reserves effected
Cultural Environment	Aboriginal and Treaty Rights and Interests	Changes in preferred harvested species
		Changes to, or restrictions on, preferred harvesting methods
		Changes to quantity and quality of cultural use locations and access routes
		Changes in the experience of lands and resources for cultural purposes

Environment Factor	Criterion	Indicators
	Archaeological Resources	Number and/or area (ha) of Indigenous sacred, burial or spiritual significant sites effected as identified by communities Number or area (ha) of Euro-Canadian archaeological sites effected
	Built Heritage and Cultural Heritage Landscapes	Number and type of Indigenous or non-Indigenous culturally significant built heritage features (outpost, trapping or hunting camp, etc.) and/or cultural heritage landscapes that may have spiritual or symbolic value
Technical Considerations	Safety and Reliability	Conformance of road alignment to provincial road safety standards and ability to provide reliability for users
	Constructability	Terrain and soil stability
	Cost	Construction capital cost Operations and maintenance cost Length (km) of all-season road
	Location of Supportive Infrastructure (aggregate supply areas, camps, laydown/storage yards, access roads)	Proximity/distance to corridor of aggregate source sites, including quality of deposits Constraints to haulage/movement of materials and equipment Length (km) of temporary and permanent access roads

9 Commitments and Monitoring

9.1 Environmental Commitments

In accordance with Section 5.2.8 of the MECP Code of Practice, the EA will include a comprehensive list of commitments made by Webequie First Nation during the course of the ToR and the EA process, and how they will be addressed. These commitments may relate to the project construction, operation and maintenance, impact management measures (i.e., mitigation measures), consultation/engagement with other Indigenous communities and compliance monitoring. Commitments made during the ToR process will be included and presented in the final ToR.

WFN is committed to environmental protection, responsible environmental management and overall responsible stewardship of the land, consistent with its cultural/spiritual beliefs and its respect for and connection to the land and water. The Project will be carried out in full compliance with federal/provincial laws and Best Management Practices and environmental procedures for road construction and operations. The EAR/IS will provide information to demonstrate that the road facility is designed, constructed and operated in a manner that makes efficient use of resources, prevents pollution and reduces environmental effects to the greatest extent reasonably achievable.

9.2 Monitoring

Webequie First Nation will prepare a monitoring framework, which will be developed during the EA process. The framework for monitoring would be identified for each project phase (construction and operation and maintenance). As noted in Section 4.4.3 the Project will be operated for an indeterminate time period (i.e., as a permanent facility); therefore, decommissioning/retirement of the Webequie Supply Road is not anticipated, and therefore no monitoring program is proposed to be developed during the EA. Two primary types of monitoring will be developed, as follows:

- Compliance monitoring; and
- Effects monitoring.

Compliance monitoring is the assessment and evaluation of whether an undertaking (the Project) has been constructed, implemented and/or operated in accordance with commitments made during the EA process, and any conditions of the EA approval and other approvals required to implement the Project. During the detail design phase for the Project, compliance with EAR/IS commitments will be regularly reviewed and incorporated in the project implementation proposals. Consistent with EAR/IS commitments, it is expected that WFN will continue external notification and engagement/consultation with Indigenous communities, government agencies and stakeholders after completion of the EAR/IS. WFN will also develop a monitoring strategy that sets out how and when all commitments made in the EAR/IS will be fulfilled and how they will report to the Ministry of the Environment, Conservation and Parks about compliance.

The compliance monitoring program will be further described in the EAR/IS, including the preparation of supportive plans, such as an Environmental Management Plan and discipline-specific management plans, to ensure compliance with all commitments identified during the EA process. The duration of the monitoring and follow-up programs will vary and will depend on the conditions of EAR/IS and other applicable permits and approvals granted by regulatory agencies.

Effects monitoring involves activities designed to verify the prediction of the effects assessment, and to verity the effectiveness of the impact management measures (i.e., mitigation). The effects monitoring program will be developed during the latter stages of the EA process. Both physical and risk-based monitoring of the effects and associated mitigation will be employed, where appropriate.

Construction and operational monitoring will identify actual effects, assess the effectiveness of the mitigation/restoration/enhancement measures to minimize or eliminate these effects, and evaluate the need for any additional action to ensure that environmental commitments and obligations are fulfilled and mitigation measures are effective.

It is anticipated that WFN community members will be actively involved in the implementation of the compliance and effects monitoring programs for the Project.

10 Engagement and Consultation

This section of the ToR presents the plan that outlines the engagement and consultation activities that will occur during preparation of the Terms of Reference and the environmental assessment.

In support of this ToR, a Record of Consultation (RoC) has been prepared. The RoC identifies and details all of the consultation and engagement activities undertaken during the preparation of the ToR, and will be maintained during the EA phase of the Project to ensure continuity in the documentation process.

10.1 Principles and Approach

10.1.1 Indigenous Communities Consultation

The plan for Indigenous communities consultation was developed in accordance with the following components:

- Elders' guiding principles;
- Webequie First Nation three-tier approach to Indigenous community consultation/engagement; and
- Requirements of applicable legislation, policies and guidelines.

10.1.1.1 Elders' Guiding Principles

Guidance has been provided to the Webequie Project Team by Elders. This guidance has been provided to ensure that the Webequie First Nation conducts consultation/engagement for the Project in a respectful manner that reflects the culture and traditions of the Webequie people and their clans and neighbours outside the Webequie First Nation. As guided, the Project Team will ensure that all project-related consultation and engagement activities will be inclusive of the following guiding principles:

- Mutual recognition of nation to nation;
- Mutual recognition of ancestral knowledge;
- Mutual recognition of traditional knowledge and practices;
- Mutual recognition of clan families and relationships;
- Mutual recognition of sustainable livelihood; and
- Mutual recognition of traditional protocols.

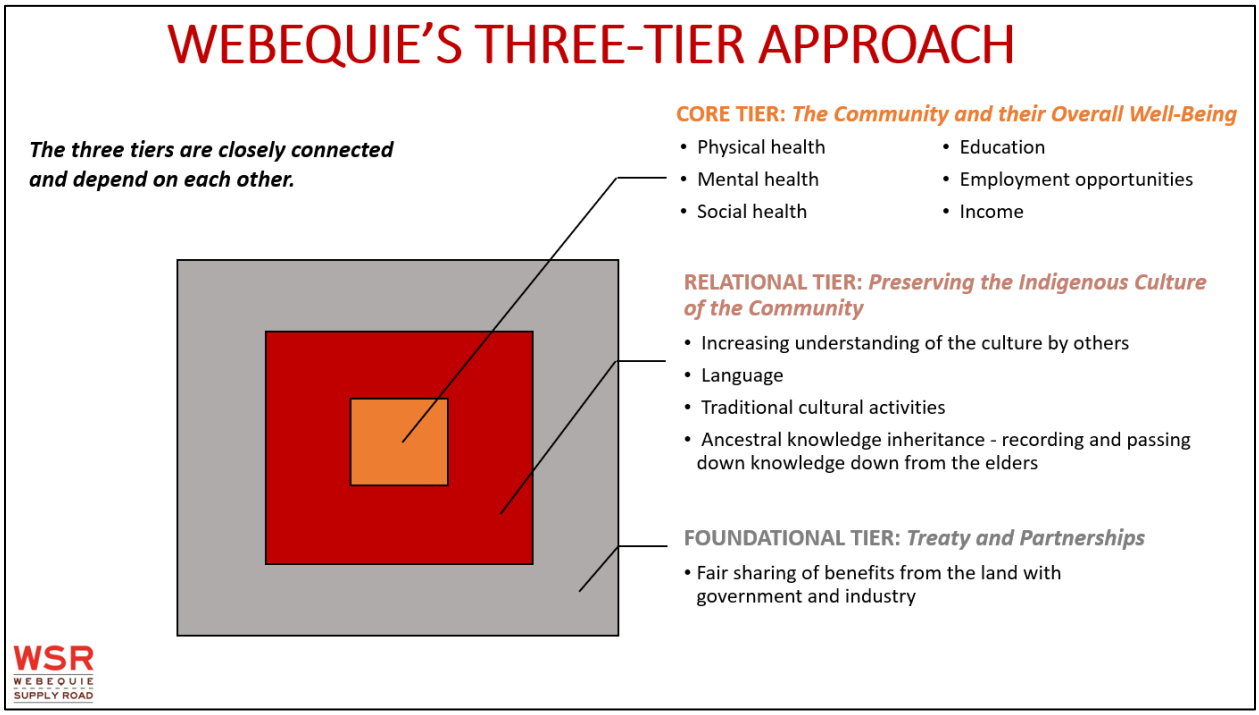
When visiting other communities, the Project Team will respect their protocols and processes, their values and traditions, and their lands. Additionally, consultation activities will include the key elements of consultation as outlined in the Nishnawbe Aski Nation *Handbook on Consultation in Natural Resource Development* (2007) to ensure that consultation is:

- A continuous process;
- About exchanging information;
- About building relationships;
- About getting feedback;
- About exchanging additional information, as required;
- About identifying issues;
- About accommodation and reconciliation;
- About fairness; and
- About negotiating with the right attitude.

10.1.1.2 Webequie First Nation Three-Tier Approach

Webequie First Nation has developed a three-tier framework for their approach to Indigenous consultation. The three-tier approach is consistent with the Webequie First Nation's traditional cultural values, customs and beliefs, as shown in **Figure 10.1** and described below.

Figure 10.1: Webequie First Nation Three-Tier Consultation Approach



This consultation approach has been inherently passed on through generations by Webequie First Nation's Indigenous Knowledge Keepers and forms part of the Elders' Guiding Principles that harmonize with regulatory requirements for consultation.

Core Tier - Webequie First Nation

The community approach to project development and consultation in Webequie First Nation is based on *Bimachiiowiin (*life sustaining or sustainable), *Ondatissiwiin (*source of life) and *Minobiimatissiwiin* (prosperity and good life agreements).

Bimachiiowiin is a result of sustainable community, which relies on the Foundational Tier. This is the tier where relationships are made with the Ontario Government and its various ministries undertaking the projects. The benefits are brought back to flow to the community, which triggers federal judiciary responsibility and involvement.

Ondatissiwiin is the source of life. The source of livelihood depends on the relationship and benefit agreements with First Nation Partners, governments and industry, which is a benefit for the community. The source is realized through project development or exploring and it either must be found or created. For this project, access to the source of *bimachiiowiin* is a supply road project and, as such, must be explored and created.

Minobiimatissiwiin is the result of prosperity and good life agreements. It is measurable through baseline studies of existing social and economic conditions today. The ToR and the EA will identify the socio-economic benefits for the community.

Relational Tier – First Nations Neighbours and Government Agencies

In order to sustain its way of life, the community must breathe and the people must be able to practice their way of life with the land, as well as their languages and culture. The Relational Tier next to the core of the community is an adaptive transitional tier supporting the fixed location of the community and relies on the land animals and wildlife to allow community members to practice the creator-given rights to hunt and fish without having to move the family to different locations for harvesting purposes.

It is well understood by the people of the Webequie First Nation that any project developed within their traditional territory could have effects on others. It is also well understood that the regulatory environment to develop projects, requires approvals and authorizations from government agencies.

The Relational Tier of Webequie's approach to consultation and project development involves outreach to and involvement of other potentially affected First Nations, many of whom are home to Webequie family/clan members; and developing relationships with and working closely with agencies of the provincial and federal governments. It is recognized that these relationships and connections are important to maintain in a positive way.

Foundational Tier – Social and Economic Benefits from the Land

The approach to project development and consultation is based on the overarching objective to create social and economic benefits for the members of the Webequie First Nation through the use and development of resources on their lands.

Social and economic benefits will result in a number of positive outcomes for the community, including improved standard of living through increased revenues; and self-determination – reduced reliance on provincial and federal government sources of funding, and the ability for the community to make decisions about activities and development within their traditional territory.

The social benefits of increased economic activity and revenues into the community are many, including improved housing and family well-being through reduced crowding that will also lead to improved health conditions. Creating economic activity will also increase skill levels and employment opportunities, all of which contribute to economic prosperity, which will then contribute to the improvement of all social outcomes for the community. One of those opportunities is mining potential within the mineralized zone in and around McFaulds Lake. This area is located approximately 75 km east of the Webequie First Nation, and lies within their traditional lands. Increased mineral exploration and the proposed mine developments within and around the mineralized zone of McFaulds Lake is considered an important and long-term economic opportunity by the Webequie First Nation.

Economic prosperity, social well-being and self-determination are at the foundation of the three-tier approach. Development opportunities must, in and of themselves, also be sustainable, providing long-term benefits to the community, and not at any cost. Any development within the traditional territory of the Webequie First Nation must be respectful of and consistent with the values, traditions and culture of the community.

10.1.1.3 Requirements of Applicable Legislation, Policies and Guidelines

The Webequie Project Team will also conduct the EA based on conventional principles and approaches that are consistent with legislative requirements and the Ministry of the Environment, Conservation and Parks Code of Practice and recognized best practices in Indigenous community, public and stakeholder engagement and consultation. In this context, the Webequie Project Team recognizes that adhering to the following principles will be important in conducting a successful engagement and consultation program for the Project:

- Early, ongoing, clear, timely and respectful communication and dialogue with all identified Indigenous communities, government agencies, stakeholders and other affected/interested parties;
- Providing multiple and ongoing opportunities for all affected and interested parties to communicate with members of the Project Team and to provide input and responses in a way that meets their needs;
- Open, transparent, traceable and flexible planning and decision-making processes; and
- Documenting input received during the consultation process and follow-up with all participants on how their input was considered and (as appropriate) incorporated into project plans, or an explanation of why it could not be incorporated.

10.1.2 Duty to Consult with Indigenous Peoples

It is the Crown's constitutional duty to determine whether a Duty to Consult has been triggered by a Project and, if so, identify the Indigenous communities to be engaged and the appropriate consultation to be undertaken with those communities. As the Webequie Supply Road Project falls under the jurisdiction of both the provincial *Environmental Assessment Act* (EA Act), and the federal *Impact Assessment Act*, both federal and provincial agencies represent the Crown. The Crown can delegate some aspects of the duty to consult to project proponents. Project proponents are obliged under the EA Act to consult with all interested parties, including Indigenous communities. To ensure engagement and consultation with Indigenous communities is meaningful, it is important to recognize that Indigenous communities have varying rights and interests in respect of the Project; consequently, they may request different approaches to consultation and engagement, as well as accommodation, where appropriate, to mitigate impacts to their rights and interests. In addition, the "public" consultation process is also open to the Indigenous communities.

The Ministry of the Environmental, Conservation and Parks (MECP) and Ministry of Energy, Northern Development and Mines (ENDM), on behalf of the Ontario Government, have formally delegated some procedural aspects of consultation required under the *EA Act* to the Webequie First Nation, as proponent. A Memorandum of Understanding (MOU) between MECP, ENDM and Webequie First Nation, setting out how roles and responsibilities related to the Duty to Consult will be shared amongst the three parties, is in the process of being finalize. Material from the executed MOU will be included in the final ToR. As established in the draft MOU, Webequie First Nation's roles and responsibilities include the following:

1. **Consultation and Planning Notification**
    a. Works with Ontario to delineate clear roles and responsibilities for consultation as set out in the MOU;
    b. Prepares Aboriginal consultation plans for the preparation of the terms of reference and the environmental assessment and submits to Ontario for review. The consultation plan for the environmental assessment must be submitted as part of the terms of reference. Consultation plans must include:

i. Outline of how the Proponent will engage with the Aboriginal Communities and meet Statutory Consultation requirements as part of the Ontario's environmental assessment process and the procedural aspects of consultation delegated in this MOU;
ii. Outline how any community consultation protocols have been incorporated, and if not, the reasons why they have not; and
iii. Timetable for completion of all responsibilities;

c. During the consultation process, considers whether separate engagement plans for each community should be developed in consultation with the Aboriginal Communities for each phase of the environmental assessment process;
d. Refers any requests for financial or other support received from Aboriginal Communities to Ontario;
e. Drafts notices associated with the environmental assessment process (e.g., Notice of Commencement of Terms of Reference) for MECP review, and the proponent circulates with input from Ontario on appropriate distribution;
f. Provides Aboriginal Communities with timely notice of the Project to consider possible impacts (e.g., notices required under the Environmental Assessment Act);
g. Provides copies of all environmental assessment related documents to Aboriginal Communities for review and comment;
h. Requests acknowledgement of receipt of all statutory notices from Aboriginal Communities (including the notice of submission of final terms of reference, notice of commencement of environmental assessment, and notice of submission of final environmental assessment), and follows up with Aboriginal Communities to confirm receipt if acknowledgement is not received (and maintains a record of these communications);
i. Requests confirmation of receipt of draft terms of reference and environmental assessment documents, and follows up with Aboriginal Communities to confirm receipt if acknowledgement is not received (and maintains a record of these communications).

2. Undertaking Consultation Activities, including Issues Resolution and Follow-Up

a. Works with MECP and ENDM to coordinate consultation activities and identify appropriate times for Ontario participation in Proponent-led activities, with the goals of ensuring meaningful consultation and to avoid duplication of effort by Aboriginal Communities, the Proponent, and Ontario (e.g., coordination through bi-weekly calls);
b. Leads the procedural aspects of consultation activities throughout the environmental assessment process to:
    i. Provide Aboriginal Communities with information about the Project;
    ii. Explain the role the Proponent will have in consultation related to the Duty and Statutory Consultation;
    iii. Identify concerns Aboriginal Communities may have about potential adverse impacts the Project may have on Aboriginal or treaty rights, including inviting Aboriginal Communities to share Indigenous Knowledge or information about traditional land use that may be impacted by the Project;
    iv. Seek input on measures to avoid, mitigate, or offset potential impacts to Aboriginal or treaty rights; and
    v. Provide opportunity for Aboriginal Communities to discuss changes to project design, mitigation strategies, monitoring and adaptive management plans;

c. Prepares materials in plain language and arranges for translation, if required, sets up meetings with Aboriginal Communities, arranges logistics for Proponent-led activities;

d. Provides funding for logistics for Proponent-led consultation activities (meeting spaces, hospitality, including costs associated with translation, document printing and distribution);

e. Refers any concerns raised by Aboriginal Communities with respect to the regulatory approvals process, timing of review of documents, meeting delays which may impact scheduling, etc. to Ontario;

f. Refers any requests for financial or other support, including capacity funding, received from Aboriginal Communities to Ontario;

g. Works with Aboriginal Communities to resolve issues and address concerns raised throughout the process, including:
    i. Providing additional information about the Project and discuss how any changes to the Project could address potential impacts to rights (e.g., changes to project design to avoid impacts, mitigation strategies, monitoring, adaptive management plans); and
    ii. Following-up with Aboriginal Communities on issues related to project impacts and documents how issues were addressed during all phases of the environmental assessment process;

h. Refers questions, comment or concerns raised by Aboriginal communities to Ontario that may be out of scope of the Proponent, the Project or the environmental assessment;

i. Integrates Indigenous Knowledge, and land use studies received from Aboriginal Communities into environmental assessment documentation, as appropriate, and documents how information was incorporated in the record of consultation;

j. Advises Ontario within a month of receipt of:
    i. any actual, potential or asserted adverse impact of the Project on established or asserted Aboriginal or treaty rights, whether Webequie First Nation becomes aware of such impact or assertion through its consultation activities or otherwise;
    ii. any notice or statement by any Aboriginal Community that some or all of its Aboriginal or treaty rights concerns in connection with the Project have been resolved, how they have been addressed and whether the Aboriginal Community is supportive of the Project; and
    iii. any questions, comments or concerns raised by Aboriginal Communities that fall outside the scope of the Project and the environmental assessment.

3. Record Keeping

a. Works with Ontario to develop common templates to record consultation that meets both Statutory Consultation and Duty obligations;

b. Submits monthly consultation reports to Ontario (using template);

c. Keeps detailed and organized records of all consultation activities (e.g., meetings, calls, correspondence) and analyzes input received from Aboriginal Communities using common template;

d. Integrates Indigenous Knowledge, and land use studies received from Aboriginal Communities into environmental assessment documentation, as appropriate, and documents how information was incorporated in the record of consultation;

e. Prepares and submits record of consultations for the terms of reference and environmental assessment to Ontario, including detailed records of correspondence, meetings, receipt of

notices, etc., issues raised and how they were resolved or addressed. Includes primary records as appendices to the records of consultation.

10.2 Indigenous Communities and Stakeholder Identification

10.2.1 Identification of Indigenous Communities

In coordination with other provincial government agencies, Ontario (MECP) identified a list of twenty-two (22) Indigenous communities to the Webequie Project Team that are to be consulted with, as part of its consultation and project planning. These communities were identified by Ontario, as per direction provided in the letter from MECP to the Webequie First Nation on December 19, 2018, as potentially having their rights and/or interests affected by the Project. Sixteen (16) of these Indigenous communities may be affected by the Project, whereas, the other six (6) Indigenous communities may have potential interest in the Project. The full list of communities is presented in **Table 10-1** below.

Table 10-1: Indigenous Communities to be Engaged/Consulted

Tribal Council or Affiliation	Community or Organization
Matawa Tribal Council	Aroland First Nation Constance Lake First Nation Eabametoong First Nation Ginoogaming First Nation Long Lake #58 First Nation Marten Falls First Nation Neskantanga First Nation Nibinamik First Nation Webequie First Nation
Mushkegowuk Council	Attawapiskat First Nation Fort Albany First Nation Kashechewan First Nation Weenusk (Peawanuck) First Nation
Shibogama Council	Kasabonika Lake First Nation Kingfisher Lake First Nation Wapekeka First Nation Wawakapewin First Nation Wunnumin Lake First Nation
Windigo First Nations Council	North Caribou Lake First Nation
Independent First Nation	Kitchenuhmaykoosib Inninuwug (KI) Mishkeegogamang First Nation
Métis Nation of Ontario	Métis Nation of Ontario – Region 2

The list provided by MECP reflects the Crown's understanding of communities whose Aboriginal and/or treaty rights may be adversely affected by the Project and/or may have interests in the Project. The list is subject to change as new information becomes available throughout the environmental assessment process. The distinction between potentially affected communities and communities that may have interests will be reflected in the depth and frequency of consultation with the Indigenous communities

identified. Communities deemed to be potentially impacted will be engaged more frequently and in more depth than those determined only to have interests.

WFN further reviewed the lists of identified communities and assessed them based on the following criteria:

- Geographically closer to the Project study area than others;
- Known to have traditionally used some of the potentially affected lands in the past, or currently;
- Downstream of the Project and may experience impacts as a result of effects to waterways;
- Considered to have closer familial/clan connections to the members of the Webequie First Nation; and/or
- Have been involved in all-season road planning in the Region, either directly with the Webequie First Nation, or in consideration of all-season road planning that the Webequie First Nation has been involved with in recent years.

Based on these factors, the Indigenous communities to be offered the deepest and most frequent engagement/consultation, include:

- Webequie First Nation
- Marten Falls First Nation
- Kasabonika First Nation
- Attawapiskat First Nation
- Nibinamik First Nation
- Neskantaga First Nation
- Weenusk (Peawanuck) First Nation
- Eabametoong First Nation

In addition to receiving all statutory notices, these communities will be provided comprehensive project information on a regular basis and full opportunity to review and comment on those materials, as well as face-to-face engagement/consultation (e.g., meetings).

The remaining Indigenous communities will also receive all statutory notices, will be provided comprehensive project information on a regular basis and full opportunity to review and comment on those materials, and will be offered direct face-to-face engagement/consultation (e.g., meetings), but on a less frequent basis than the communities listed above. Those communities include:

- Aroland First Nation
- Constance Lake First Nation
- Fort Albany First Nation
- Kashechewan First Nation
- Kitchenuhmaykoosib Inninuwug
- Kingfisher Lake First Nation
- Wapekeka First Nation
- Wawakapewin First Nation
- Wunnumin Lake First Nation
- Ginoogaming First Nation
- Long Lake #58 First Nation
- Mishkeegogamang First Nation
- Métis Nation of Ontario – Region 2
- North Caribou Lake First Nation

10.2.2 Government Agencies

10.2.2.1 Government Review Team

Based on the project components and potential project effects, it is expected that the following provincial and federal agencies will participate in the EA at some level. The listing is also based on inclusions suggested by the Ministry of the Environment, Conservation and Parks and the Impact Assessment Agency of Canada.

Ontario Government

- Ministry of Energy, Northern Development and Mines
- Ministry of the Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Transportation
- Ministry of Indigenous Affairs
- Ministry of Education
- Ministry of Community Safety and Correctional Services
- Ministry of Economic Development, Job Creation and Trade
- Ministry of Municipal Affairs and Housing
- Ministry of Tourism, Culture and Sport
- Ontario Provincial Police

Government of Canada

- Impact Assessment Agency of Canada
- Environment and Climate Change Canada
- Fisheries and Oceans Canada
- Crown-Indigenous Relations and Northern Affairs Canada
- Indigenous Services Canada
- Transport Canada

In addition to the broader GRT, an EA Coordination Team has been established to coordinate the requirements of the provincial and federal EA processes as efficiently as possible. The EA Coordination Team is comprised of the following provincial and federal agencies:

- Ministry of Energy, Northern Development and Mines
- Ministry of the Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Transportation
- Impact Assessment Agency of Canada

The mandate of the EA Coordination Team is to meet with the Webequie Supply Road (WSR) Project Team on a regular basis, in a forum where team members can exchange information, including providing each other with updates on the EA process; explore issues and collectively try to resolve them before they compromise the EA process; work on coordinating the EAs and keep the processes moving forward in lockstep to the greatest possible extent; and seek feedback on Indigenous and public and stakeholder consultation. EA Coordination Team meetings occur regularly in Thunder Bay and/or via teleconference, and will continue throughout the EA process. The EA Coordination Team may invite other GRT members to its meetings as needs and opportunities arise.

10.2.2.2 Municipalities

Municipalities to be included in the consultation program were identified based on their proximity to the proposed all-season corridor, and include:

- City of Thunder Bay
- Municipality of Greenstone
- Township of Pickle Lake
- City of Timmins
- Municipality of Sioux Lookout

10.2.3 Public and Stakeholders

Interested and/or affected stakeholders, including non-governmental organizations, were identified based on the following interests:

- Members of the public;
- Crown land tenure and claim holders within the mineralized zone in the McF
- Aulds Lake area;
- Environmental interest groups;
- Community based organizations; and
- Recreational and eco-tourism businesses.

The full engagement and consultation Contact List developed to date for Indigenous Communities, government agencies and stakeholders is included in the Terms of Reference Consultation Plan developed in consultation with MECP (available for viewing on the project website: www.supplyroad.ca).

10.3 Terms of Reference Engagement and Consultation Results

To date, the Webequie Project Team has implemented the Terms of Reference Consultation Plan.

10.3.1 Activities and Key Comments and Concerns Expressed by Indigenous Groups/Community Members to Date

Table 10-2 provides a description of consultation and engagement activities conducted with potentially affected communities to date. In addition to these activities, the Project website has been created (www.supplyroad.ca). The website includes key project documents and information, including the Notice of Commencement of the Environmental Assessment Terms of Reference, and presentation and other project materials that describe the study. As consultation activities occur, the Project website will have updated project information and recordings of community meetings with Indigenous communities.

Table 10-2: Overview of Activities and Events Conducted with Potentially Affected Indigenous Communities to Date

Indigenous Group	Description of Engagement/Consultation Activities
Webequie First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Chief and Council meeting and community meeting on February 22, 2019 to introduce the project scope, provide an overview of the EA processes and engagement/consultation activities, and provide an update on winter field studies conducted. • Meeting with community members on July 16, 2019, to present key elements of the Draft ToR. • Meeting with off-reserve community members on August 16, 2019, to present key elements of the Draft ToR.
Aroland First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Attawapiskat First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018.
Constance Lake First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.

Indigenous Group	Description of Engagement/Consultation Activities
Eabametoong First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018.
Fort Albany First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Ginoogaming First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Kasabonika Lake First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018. • Meeting with Chief and Council on March 11, 2018, to review the Project scope and timelines, approach to consultation with community members and other Indigenous communities, and the

Indigenous Group	Description of Engagement/Consultation Activities
	EA processes.
Kashechewan First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Kingfisher Lake First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Meeting with Chief and Council on August 22, 2019, to introduce the project, present key elements of the Draft ToR and seek permission to meet with community members.
Kitchenuhmaykoosib Inninuwug (KI)	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Long Lake #58 First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Marten Falls First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to

Indigenous Group	Description of Engagement/Consultation Activities
	request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018. • Meeting with Chief and Council on March 3, 2019, to review the Project scope and timelines, approach to consultation with community members and other Indigenous communities; and the EA processes. • Meeting (at Webequie) with Chief and Council on August 9, 2019, to present key elements of the Draft ToR.
Mishkeegogamang First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Meeting with Chief and Council and community members on August 1, 2019, to introduce the project and present key elements of the Draft ToR.
Neskantaga First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018.
Nibinamik First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018.

Indigenous Group	Description of Engagement/Consultation Activities
	• Meeting with Chief and Council on July 24, 2019, to introduce the project, present key elements of the Draft ToR and seek permission to meet with community members.
North Caribou Lake First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Wapekeka First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Meeting with Chief and Council on August 27, 2019, to introduce the project, present key elements of the Draft ToR and to seek permission to meet with community members.
Wawakapewin First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Meeting with Chief and Council on August 28, 2019, to introduce the project, present key elements of the Draft ToR and seek permission to meet with community members.
Weenusk (Peawanuck) First Nation	• Received Letter from WFN (Chief Wabasse) to Chief and Council, dated November 23, 2018, to introduce the Project and requesting input on how they would like to be engaged. • Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019. • Received follow up letter to the Notice of Commencement for provincial Environmental Assessment Terms of Reference and to request for a meeting with Chief and Council to introduce the Project and discuss the EA process, dated February 12, 2018. • Meeting with Chief and Council on March 15, 2018, to review the

Indigenous Group	Description of Engagement/Consultation Activities
	Project scope and timelines, approach to consultation with community members and other Indigenous communities, and the EA processes.
Wunnumin Lake First Nation	• Received Letter from Ministry of the Environment, Conservation and Parks (MECP), dated December 19, 2018, to notify the community of the Project and that Webequie FN will be contacting Indigenous communities to discuss scope of the Project and the EA processes. • Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.
Métis Nation of Ontario – Region 2	• Received Notice of Commencement to Prepare a provincial Environmental Assessment Terms of Reference, dated January 25, 2019.

Table 10-3 below provides comments compiled during the course of engagement conducted for the Webequie Supply Road Project to date by community.

In general, comments to date have generally been about potential impacts of road construction and operation to the use of land for traditional purposes such as gathering, hunting, trapping and fishing. There have also been concerns about potential impacts to historic and cultural areas. Impacts to traditional uses of the land will be minimized through corridor definition and construction methods. Similarly, impacts to cultural and historic areas will largely be mitigated through road alignment refinement.

It should also be noted that the alternatives evaluation process was largely conducted by and amongst Webequie First Nation community members in the absence of the engagement consultant. Discussions were held with a variety of community members, defined both demographically (i.e., elders, youth) and by their activities in relation to the land (i.e., land users, harvesters). Consensus regarding an initial community-preferred corridor was reached through the process of conducting these various formal and informal discussions until such point that there was general consensus as to a preferred corridor.

Table 10-3: Key Comments and Concerns Expressed by Indigenous Groups/Community Members to Date

Indigenous Group	Comments/Concerns Received from Indigenous Communities/Groups	Responses Provided to Indigenous Communities/Groups
Webequie First Nation	• Concerned about impacts to the use of land for traditional purposes such as gathering, hunting, trapping and fishing have been identified by Webequie land users. There have also been concerns about potential impacts to historic and cultural areas. Impacts to traditional uses of the land will be minimized through corridor definition and construction	The Project Team indicated that they value community input and what the community finds important. The Project Team noted that information like this is important to ensure that the road is built responsibly and does not impact culturally sensitive areas.

Indigenous Group	Comments/Concerns Received from Indigenous Communities/Groups	Responses Provided to Indigenous Communities/Groups
	methods. Similarly, impacts to cultural and historic areas will largely be mitigated through road alignment refinement.	
Aroland First Nation	• No comments to date.	
Attawapiskat First Nation	• Asserted that the traditional territory of Attawapiskat First Nation coincides with the traditional territory of Webequie First Nation.	Webequie First Nation and Attawapiskat First Nation to discuss further.
Constance Lake First Nation	• No comments to date.	
Eabametoong First Nation	• Joint letter with Neskantaga First Nation dated February 28, 2019, outlining concerns with the scope of the Environmental Assessment process and the Regional Framework Agreement.	Response letter from Regional Consultation Coordinator sent to Eabametoong FN which indicated that that concerns related to the Regional Framework and jurisdiction should be addressed to the Province and to follow-up directly. It was noted that there are areas for alignment in terms of: inclusion of Traditional Knowledge in the EA, community participation and assessment of any potential impacts on Aboriginal and treaty rights in the Project Study Area. Requested meeting to discuss the Draft ToR.
Fort Albany First Nation	• No comments to date.	
Ginoogaming First Nation	• No comments to date.	
Kasabonika Lake First Nation	• Concerned about impacts to the land as a result of mining development in the area. Community members want to ensure that contractors and proponents are doing their part in conserving and protecting the environment.	Webequie First Nation and Kasabonika Lake First Nation to discuss further.
Kashechewan First Nation	• No comments to date.	
Kingfisher Lake First Nation	• Noted that social impacts should be assessed, including security and fiscal responsibility if	Project Team noted these concerns and will assess social and economic (negative and

Indigenous Group	Comments/Concerns Received from Indigenous Communities/Groups	Responses Provided to Indigenous Communities/Groups
	community members are employed during construction.	positive) impacts in the EA.
Kitchenuhmaykoosib Inninuwug (KI)	• No comments to date.	
Long Lake #58 First Nation	• No comments to date.	
Marten Falls First Nation	• Noted that access, control, security and land management are potential issues that communities would be concerned about.	Project Team noted these concerns and will assess issues of access, control, security and land management in the EA, where possible.
Matawa Tribal Council	• Interested in learning more about how broader issues will be handled by the government, such as food supply, as this is an issue that is important to communities.	Project Team will provide project updates at key milestones and will meet with Matawa Council upon request.
Métis Nation of Ontario – Region 2	• No comments to date.	
Mishkeegogamang First Nation	• Concerned about traffic impacts and public safety as a result of a road. • Noted the pros (accessibility) and cons (loss of way of life) to having a road.	Project Team noted these concerns and will assess issues of traffic, public safety, and cultural/traditional land use impacts in the EA.
Mushkegowuk Council	• Requested to be informed of information updates and future meetings.	Project Team will provide project updates at key milestones and will meet with Mushkegowuk Council upon request.
Neskantaga First Nation	• Joint letter with Eabametoong First Nation dated February 28, 2019, outlining concerns with the scope of the Environmental Assessment process and the Regional Framework Agreement.	Response letter from Regional Consultation Coordinator sent to Neskantaga FN which indicated that that concerns related to the Regional Framework and jurisdiction should be addressed to the Province and to follow-up directly. It was noted that there are areas for alignment in terms of: inclusion of Traditional Knowledge in the EA, community participation and assessment of any potential impacts on Aboriginal and treaty rights in the Project Study Area. Requested meeting to discuss the Draft ToR.

Indigenous Group	Comments/Concerns Received from Indigenous Communities/Groups	Responses Provided to Indigenous Communities/Groups
Nibinamik First Nation	• Concerned about loss of way of life and how it will be impacted by Provincial laws.	Project Team noted this concern and will assess impacts to way of life in the EA.
North Caribou Lake First Nation	• No comments to date.	
Shibogama Council	• No comments to date.	
Wapekeka First Nation	• Noted that the Webequie process, and that the project is a First Nation-led project, are positive signs for other Indigenous communities, allowing to use Indigenous knowledge for considerations in the EA. • Noted that there should be collective discussions amongst the community leaders to address the proposed road and seek comments, rather than approaching community leaders individually.	Project Team noted these comments and indicated that Indigenous knowledge is important to the EA and was used for the routing of the Supply Road. The Project Team noted that there will be discussions with Tribal Councils and their Chiefs to discuss the process and Project.
Wawakapewin First Nation	• Noted to ensure engagement of Indigenous communities to obtain their input and feedback on potential impacts of the road. • Noted that Webequie should have their own company to conduct environmental monitoring during construction activities.	Project Team noted these comments and indicated that the engagement is ongoing.
Weenusk (Peawanuck) First Nation	• Concerned about downstream impacts of mining and mining-related development, including the supply road. Concerned about over-harvesting by First Nation neighbours to the south. Noted that wildlife studies on population and migration should be conducted during the EA to examine changes in population and distribution, particularly with moose and caribou.	Project Team noted that wildlife surveys and studies will be conducted throughout the EA.
Windigo First Nations Council	• Interested in being informed on the Project, especially in relation to Windigo First Nation communities, namely North Caribou Lake First Nation.	Project Team will provide project updates at key milestones and will meet with Windigo First Nations Council upon request.

Indigenous Group	Comments/Concerns Received from Indigenous Communities/Groups	Responses Provided to Indigenous Communities/Groups
Wunnumin Lake First Nation	• No comments to date.	

Additional detail on input received to date is provided in the Record of Consultation accompanying the ToR.

10.3.2 Government Review Team and Municipal Involvement to Date

A summary of activities conducted with the GRT and agency involvement to date is presented in **Table 10-4.** Note that this includes activities related to the All-Season Community Road Study pre-dating the ToR phase of the EA.

Table 10-4: All-Season Community Road Study Government Agency Review Team Involvement to Date

Jurisdiction	Specific Agency	Date / Method of Consultation to Date
Federal Government	• Canadian Environmental Assessment Agency • Fisheries and Oceans Canada • Transport Canada • Environment and Climate Change Canada • Health Canada	• CEA Agency consultation has been undertaken in the form of formal meetings on December 11, 2017 and March 1, 2018 • Provided Notice of Commencement of provincial Environmental Assessment Terms of Reference on January 25, 2019
Provincial Government	• Ministry of Natural Resources and Forestry (MNRF) • Ministry of Northern Development and Mines (MNDM) • Ministry of the Environment and Climate Change (MOECC) • Ministry of Transportation of Ontario (MTO)	• MNRF, MOECC and MNDM consultation has been undertaken in the form of formal meetings on October 12, 2017, November 24, 2017, December 11, 2017 and March 1, 2018 • MTO consultation has been undertaken in the form of formal meetings on October 12, 2017 and November 16, 2017 • Provided Notice of Commencement of provincial Environmental Assessment Terms of Reference on January 25, 2019
Provincial Law Enforcement Agencies	• Nishnawbe-Aski Police Service (NAPS)	• Met with Staff-Sergeant Merle Loon in first quarter 2016 as part of All-Season Community Road Study regarding whether all-season roads would be subject to provincial Highway Traffic Act, resulting in all road users having to be licensed and insured

At the outset of the Webequie Supply Road Project ToR phase, information request letters, project notification letters and Notice of Commencement of EA Terms of Reference were sent to municipalities and the agencies on the Government Review Team (GRT) list. These letters provided a brief overview of the Project and upcoming studies, and requested agencies to provide a statement of confirmation that they wish to participate in the study, as well as provide any required or useful information to the Project Team.

Discussions with the EA Coordination Team to date have focused on the regulatory process, including coordination of input and guidance provided by CEA Agency and MECP; permit requirements; delegation of duty to consult; and anticipated requirements and expectations for the coordinated environmental assessment processes. Guidance has also been received on the consultation process, as well as development of the provincial EA Terms of Reference and federal EA Project Description.

10.3.3 Public and Stakeholder Involvement to Date

The Notice of Commencement for the Environmental Assessment Terms of Reference was published in the following newspapers:

- Thunder Bay Chronicle on January 25, 2019;
- Timmins Daily Press on January 25, 2019;
- Sioux Lookout Bulletin on January 30, 2019;
- Wawatay News Website between June 1 and June 30, 2019; and
- Wawatay Newspaper on June 15, 2019.

The Notice was also published on the Project website at www.supplyroad.ca.

No formal activities/events have been conducted for members of the general public to date.

No comments have been received and no members of the public have contacted the Webequie Project Team to date.

10.4 Engagement and Consultation Activities During the EA Study

The engagement and consultation approach and mechanisms established for the ToR phase will continue through the EA study. Additionally, any feedback received from Indigenous communities, GRT, municipalities, stakeholders and the public during the ToR phase regarding the consultation approach and mechanism will be taken into account and the appropriate adjustments made.

Throughout the EA study, there will be a number of milestones that the Webequie Project Team will meet in order for the EA to progress towards successful completion. These include:

- Commencement of EA study following ministerial approval of the Terms of Reference;
- Further development and identification of alternative methods for implementing the Project and criteria for evaluating alternatives;
- Evaluation of alternatives and identification of preferred alternative;
- Submission of Draft EAR/IS; and
- Submission of Final EAR/IS.

10.4.1 EA Engagement and Consultation with Indigenous Communities

A variety of activities and materials will be used to provide information and receive input from Indigenous communities during the EA phase. **Table 10-5** outlines the mechanisms, activities and events that are planned for various stages throughout the EA study and will be used at milestone points to ensure optimal engagement with Indigenous communities.

Table 10-5: Indigenous Consultation and Engagement Methods during the Terms of Reference

Method of Engagement	Description
Notification Letters	Notification letters will be prepared and sent by registered mail to all of the identified Indigenous communities and Tribal Councils (as listed in Table 10-1) to inform them of the following EA milestones: • Commencement of EA study following ministerial approval of the Terms of Reference; • Further development and identification of alternative methods for implementing the Project and criteria for evaluating alternatives; • Evaluation of alternatives and identification of preferred alternative; • Submission of Draft EAR/IS; and • Submission of Final EAR/IS.
Public Notices and Newspaper Advertising	Public Notices will be issued at various points throughout the EA study to inform all identified Indigenous communities of EA commencement and submission and to invite attendance at the community meetings. Notices to be published include: • Notice of Commencement of EA Study; • Notice of Community Meetings to review alternatives and their assessment; • Notice of Draft EAR/IS for Review; • Notice of Submission of Final EAR/IS for Review. The public notices will be published in the Wawatay News, Thunder Bay Chronicle Journal, Timmins Daily Press, and Sioux Lookout Bulletin and posted on the Project Website to reach Indigenous communities across Northern Ontario.
Community Visits	Community visits are planned throughout the EA schedule with the eight most potentially affected communities (see Section 10.2.1) – 3 for each of the 8 communities. Community visits to the other 14 communities will be planned upon request. The current schedule includes provision for 2 visits to each of these communities. Community meetings will provide information on the EA process and to seek feedback and comments to be incorporated into the EA. Specific activities to be conducted during community visits include: • Outline the purpose and scope of the EA, including schedule and EA milestones;

Method of Engagement	Description
	• Present the results of studies that have been conducted; • Obtain input and feedback from community members on the alternatives development and assessment; • Outline proposed environmental mitigation, protection and compensation measures associated with the preferred alternative; • Obtain general input from community members about the Project and information they wish to share. The Draft EAR/IS will be available at the Administration office of each Indigenous community for community members to review during the public review periods. The Project Team will incorporate feedback and comments received on the Draft into the Final EAR/IS. The Final EAR/IS will also be made available at the Administration office for viewing.
Meeting with Off-Reserve Community Members	Two (2) meetings with off-reserve community members of the 22 Indigenous communities (see Section 10.2.1) will take place during the EA schedule. These meetings will be held in the City of Thunder Bay, as this is the most central location closest to the Project Study Area. The purpose of the meetings is generally as described above for the community visits, focussing on obtaining input and feedback on the alternatives development and assessment. The meetings will occur at the same project stage as the community visits. These off-reserve community members will have an opportunity to review the Draft EAR/IS during the public review period at the participating municipal offices and public libraries. Off-reserve community members may provide comments and feedback on the Draft EAR/IS, and Final EAR/IS with comments incorporated, through the same channels as on-reserve community members.
Engagement with Métis Nation of Ontario	Information meetings will be held with the Métis Nation of Ontario (MNO) upon request. Meetings will be held in the City of Thunder Bay. MNO will receive a copy of the Draft and Final EAR/IS for feedback and comments during the public review periods.
Radio Information Sessions	Radio information sessions will be broadcast over Wawatay Radio, throughout the Wawatay broadcast region. These sessions will take place periodically throughout the EA study schedule. The sessions will be in an open dialogue format with the Project Team to allow community members to ask questions about the Project and to obtain their feedback and input. In addition, community meetings will be recorded and broadcasted to allow for community members that cannot attend meetings to participate.

Method of Engagement	Description
Engagement with Tribal Councils and Nishnawbe Aski Nation	Tribal Councils and the Nishnawbe Aski Nation will be provided information and will be provided opportunities to comment throughout the EA study schedule. Meetings will be held upon request. Tribal Councils and the Nishnawbe Aski Nation will receive a copy of the Draft and Final EAR/IS for feedback and comments during the public review periods.
Communication Materials	Various communication materials will be developed for use at meetings. These include presentation slide decks, project fact sheets, handouts, display boards, etc. Communication materials will be in plain language and free of technical jargon to ensure that information is clear and easy to understand. Some materials will be translated into the native language of the communities.
Audio and Visual Products	For those Indigenous communities who have the capability, community meetings and presentations will be live-streamed through local community media to allow for a wider audience to participate in the meetings and have the opportunity to ask questions and provide feedback. Some recordings of the community presentations will be saved and posted on the Project Website for public viewing.
Project Website	A Project Website is available for the public to review project related information at www.supplyroad.ca. Materials that will be posted on the website include: • Commencement of EA study following ministerial approval of the Terms of Reference; • Further development and identification of alternative methods for implementing the Project and criteria for evaluating alternatives; • Evaluation of alternatives and identification of preferred alternative; • Submission of Draft EAR/IS; • Submission of Final EAR/IS Project Newsletters; • Recorded videos of community presentations; • Other materials that are developed over the course of the EAR/IS preparation period. Community members will be able to provide comments and feedback on the Draft EAR/IS through the website. The Project Team will ensure that feedback and comments received are incorporated into the Final EAR/IS.
Project Newsletters	Project Newsletters will be developed on a monthly basis, providing information on project updates and summary information of project milestones. These will be posted on the Project Website and will be in plain language that will clearly explain project information for community members to understand. Newsletters will be translated in the language native to communities.

10.4.1.1 How Indigenous Knowledge will be Gathered and Used

EA engagement and consultation activities will include the gathering of Indigenous Knowledge information. The Webequie Project Team acknowledges that Indigenous communities have been documenting Indigenous Knowledge for years within the project area. The Webequie Project Team will collect existing Indigenous Knowledge that is specific to the Supply Road project area. It is also acknowledged that, despite the extensive amount of existing Indigenous Knowledge available, there may be small gaps that necessitate additional, site-specific data collection.

Indigenous Knowledge is considered to be a holistic body of knowledge containing information and records collected by Indigenous communities that is considered to be of cultural, spiritual, historical and community significance to its members. Much of this knowledge may have been passed on from generation to generation. Each community will have its own approach to collecting, recording, sharing and using this knowledge. WFN will acknowledge and respect the sensitive and confidential nature of Indigenous Knowledge collection and its use.

WFN intends to use Indigenous Knowledge and other information received from community members for the Project to assist with several key elements of the EA process, including:

- Assessing existing Indigenous Knowledge information in relation to the road project and to understand additional work that may be required;
- Incorporating Indigenous Knowledge currently available to establish a baseline to monitor change going forward;
- Evaluating alternatives and assessing potential impacts of the Project (e.g., criteria and indicators of relevance to Indigenous communities for all environmental components); and
- Developing environmental mitigation, protection and compensation measures, and monitoring commitments and accommodation measures, where necessary.

10.4.2 Government Agency, Public and Stakeholder Engagement and Consultation

The following sections provide a plan for engaging and consulting government agencies and non-Indigenous communities and stakeholders, based on EA study milestones similar to those for Indigenous communities.

10.4.2.1 Government Review Team

At the outset of the EA study, information request letters and project notification letters will be sent to the agencies on the Government Review Team (GRT) list. These letters will provide a brief overview of the work to be conducted during the EA phase, including upcoming baseline studies, as well as requesting any required or useful information through their technical representative. At subsequent EA milestone points, the Webequie Project Team will provide information to and request input from the GRT. Those agencies listed on the GRT that have indicated an interest in the Project will receive project status reports, opportunities to comment on studies to be conducted, the development and evaluation of alternatives, notices of upcoming consultation events (refer to open house session approach in Section 10.4.2.3), and the opportunity to contribute to the review of the Draft and Final EAR/IS.

10.4.2.2 Municipalities

Municipalities will be notified at the EA milestones and will be invited to open house sessions being held in the City of Thunder Bay (refer to Section 10.4.2.3 for open house approach). While the Municipality of Greenstone, Township of Pickle Lake, City of Timmins and Municipality of Sioux Lookout will be included

within the consultation program due to their location and interested stakeholders, public information sessions will not be held at these locations. Instead, any public information sessions will be held in the City of Thunder Bay, as this is the most central location to the Webequie First Nation and, therefore, the likely all-season road corridor. The Webequie Project Team will consider requests for additional open houses in other locations.

10.4.2.3 Public and Stakeholders

All identified affected and/or interested stakeholders and members of the public will be notified at the EA study milestones. The public and stakeholders will have the opportunity to attend two (2) open house sessions that will be held in City of Thunder Bay – focussing on:

1) Development and evaluation of alternatives; and
2) Presentation of the preferred alternative and associated environmental mitigation, protection and compensation proposals developed to date.

It is proposed that the dates for the government/public open house sessions coincide with those for the off-reserve Indigenous community members, with a late afternoon – early evening slots allocated to government (GRT/municipal/elected representative), the public and stakeholder groups, and later evening slot allocated to off-reserve Indigenous community members.

The open houses will include display materials containing information on the Project background, the EA study process, known existing project location environmental conditions, the results of studies that have been conducted; the development and evaluation of alternatives, the project schedule and the results of the consultation program. The Webequie Project Team will be available to receive and respond to questions and have an open dialogue regarding the EA process. Written comments may be prepared and left at the open house venue or sent to the Project Team within a specified period following the event.

The public and stakeholders will be notified regarding the commencement of the EA and submission of the Draft and Final EAR/IS. The EAR/IS will be available for review on the project website, and at municipal offices or nearby public libraries in:

- City of Thunder Bay
- Municipality of Greenstone
- Township of Pickle Lake
- City of Timmins
- Municipality of Sioux Lookout

Table 10-6 below outlines the methods of engagement with the government agency, public and stakeholder groups described above.

Table 10-6: Government Agency, Public and Stakeholder Methods of Engagement During the EA Study

Method of Engagement	Description
Notification Letters	Notification letters will be prepared and sent by mail and email to the public and stakeholders identified and included in the Stakeholder Contact List at the EA milestones: • Commencement of EA study following ministerial approval of the Terms of Reference; • Further development and identification of alternative methods for implementing the project and criteria for evaluating alternatives; • Evaluation of alternatives and identification of preferred alternative; • Submission of Draft EAR/IS; and • Submission of Final EAR/IS.
Public Notices and Newspaper Advertising	Public Notices will be issued at various points throughout the Project to inform the public and stakeholders of EA study commencement and submission and to invite attendance at the community meetings. Notices to be published include: • Notice of Commencement of EA Study; • Notice of Open House sessions; • Notice of Draft EAR/IS for Review; • Notice of Submission of Final EAR/IS for Review. The public notices will be published in the Wawatay News, Thunder Bay Chronicle Journal, Timmins Daily Press, and Sioux Lookout Bulletin and the Project Website to reach Indigenous communities across Northern Ontario.
Open Houses	As discussed in Section 10.4.2.3, during the EA, two (2) open houses will be planned in the City of Thunder Bay for government agencies, the public and stakeholders. The open houses will serve as a forum for the public and stakeholders to provide feedback and comments on the results of the studies that have been conducted, development and evaluation of alternatives and presentation of the preferred alternative.
Communication Materials	Various communication materials will be developed for use at meetings. These include presentation slide decks, project fact sheets, handouts, display boards, etc. Communication materials will be in plain language and free of technical jargon to ensure that information is clear and easy to understand.

Method of Engagement	Description
Project Website	A Project Website is available for government agencies, the public and stakeholders to review project related information at www.supplyroad.ca. Materials that will be posted on the website include: • Notice of Commencement of EA study following ministerial approval of the Terms of Reference; • Information on the further development and identification of alternative methods for implementing the Project and criteria for evaluating alternatives; • Information on the evaluation of alternatives and identification of preferred alternative; • Notice of Open House sessions; • Notice of Draft EAR/IS for Review; • Draft EAR/IS; • Notice of Submission of Final EAR/IS for Review; • Final EAR/IS; • Recorded videos of community presentations; • Other materials that are developed over the course of the EAR/IS preparation period. Public and stakeholder groups will be able to provide comments and feedback on the Draft EAR/IS through the website. The Project Team will ensure that feedback and comments received are incorporated into the Final EAR/IS.
Project Newsletters	Project Newsletters will be developed on a monthly basis, providing information on project updates and milestones. These will be posted on the Project Website and will be in plain language that will clearly explain project information for community members to understand. Newsletters will be translated in the language native to communities.
EAR/IS Document Review	Interested public and stakeholders will have an opportunity to review the Draft and Final EAR/IS during the public review periods at the participating municipal offices and public libraries.

10.4.3 Schedule of Consultation Activities

Table 10-7 below outline the EA milestones, the associated consultation activity and proposed timeframe. It should be noted that this schedule is subject to change based on the availability of Indigenous communities to meet with the Project Team.

Table 10-7: EA Consultation Milestones

Regulatory Milestone/Activity	Consultation Activity	Outcome	Schedule (2019 - 2022)
Notice of Commencement of EA			**March 2020**
	• Circulate Notice of Commencement of ToR • Letter to Chief and Councils • Meet Chiefs and Councils	• Identify interest to participate	
Development of Alternatives			**March 2020 – September 2020**
	• Indigenous Community meetings to introduce the Project and seek input on alternatives • Off-Reserve Community meeting • Non-Indigenous communities, public and stakeholder open house (Thunder Bay) • Website • Monthly Newsletters (to be posted on the Website) • Distribution of EAR materials (e.g., presentation slide deck, fact sheets)	• Input to alternatives • Input to EAR • Share Indigenous Knowledge to characterize existing conditions and identify project area features and resources that are of value to the community	
Evaluation of Alternatives			**March 2020 – September 2020**
	• Indigenous Community meetings to evaluate alternatives • Website • Monthly Newsletters (to be posted on Website) • Circulation of EA materials	• Input to alternatives • Evaluate alternatives • Input to EAR • Incorporation of Indigenous Knowledge obtained into Draft EAR	
Review of Draft EAR/IS			**January 2021 – March 2021**
	• Indigenous Community meetings to discuss and present the Draft EAR/IS, seek comments on the Draft EAR/IS, and solicit additional information for inclusion in the Final EAR • Non-Indigenous communities, public and stakeholder open house (Thunder Bay) • Website • Monthly Newsletters (to be posted on Website)	• Input to alternatives • Evaluate alternatives • Incorporation of Indigenous Knowledge obtained into Draft EAR/IS • Comments on Draft EIS/ EAR	

Regulatory Milestone/Activity	Consultation Activity	Outcome	Schedule (2019 - 2022)
	• Circulation of EA materials • Post document at Indigenous community Administration offices and participating municipal offices and libraries (document will be provided via email; hardcopy will be provided upon request)		
Review of Final EAR/IS			**August 2021 – February 2022**
	• Circulate Notice of Submission of Final EAR/IS • Letter to Chiefs and Councils • Website • Monthly Newsletters (to be posted on Website) • Distribution of EA materials • Post document at Indigenous community Administration offices and participating municipal offices and libraries (document will be provided via email; hardcopy will be provided upon request) • Indigenous community meetings, upon request or as necessary to resolve issues • Follow up calls to confirm receipt of document	• Receive comments on EAR/IS • Prepare responses to comments on EAR/IS	

10.5 Record of Consultation

The EA study will maintain and augment the Record of Consultation developed during the Terms of Reference phase of the Project.

The Record of Consultation is a self-standing document that supports the EA study. It will document all Indigenous, government agency, stakeholder and public and communication and engagement activities undertaken, and it will include all concerns and issues that are raised during the EA study, and any responses, resolutions, agreements and commitments. However, where comments influence the preferred alternative or commitments to mitigation and monitoring/reporting, they will be addressed in relevant sections of the EAR/IS. Other comments relating to the project will be addressed the Consultation Section of the EAR/IS and the Record of Consultation, outlining the comment and the response provided.

The consultation log will be updated to reflect each communication and engagement/consultation activity. A copy of the aggregate consultation record of all communication activities will be provided to regulators as required by the regulator and each Indigenous community will be provided with a copy of the Record of Consultation pertaining to that community, concurrent with the submission to regulators. The consultation database includes the following information relating to each engagement and consultation event or activity:

- Date on which the communication, event or activity occurred;
- Method of communication (e.g., letter, e-mail, phone call, face-to-face);
- Identification of initiator and recipient of communication or, in the case of a meeting, organizer and participants attending the meeting;
- Copy of or link to communication in the case of written communication, as well as copy of/or link to any other relevant documentation provided or generated as part of the communication, including all regulatory information provided, notices for community meetings, and draft versions of all materials prepared for EA;
- Summary of communication or, in the case of a meeting, meeting notes; and
- Identification of issues raised or discussed and any follow-up action or undertaking.

11 Flexibility to Accommodate New Circumstances

The Project, as described within this ToR, is based upon a conceptual level of design information, and does not represent the final design, location and scope of the proposed undertaking. Therefore, the proposed project presented in this ToR by WFN should be viewed as a preliminary description, which is subject to change as the Project evolves during preparation of the EA, based on the results of ongoing engineering design, the results of baseline characterization and effects assessment, and the results of engagement/consultation with Indigenous communities, government agencies, the public, stakeholders and other affected and interested parties. These factors could result in the alteration of technically and economically feasible alternative methods of carrying out the Project, including the alignment of the road corridor identified during the ToR phase, before the proposed or final undertaking (i.e., the Project) is confirmed and presented in the EAR/IS.

In accordance with subsection 6.1(1) of the EA Act, WFN recognizes that the EA and the associated EAR/IS must be conducted/prepared in accordance with the approved ToR. Notwithstanding, WFN is aware that unforeseen circumstances may arise that could prevent the commitments in the ToR from being met. As such, flexibility has been incorporated into this ToR, where appropriate, to accommodate new circumstances or issues/concerns that may arise as the EA progresses and the design advances for the Project. In this regard, it is understood that certain aspects of the ToR may be adjusted without the need to re-start the provincial EA process. For this reason, the ToR has not committed to the precise route or alignment for the 35 m wide all-season road corridor within the preferred 2 km wide corridor.

For the purposes of preparing this ToR, flexibility is defined to include a minor variation or modification to the ToR itself, such as a change in engagement methods with Indigenous communities, baseline environment characterization methods, effects assessment methods, and refinements to the Study Area or environmental factors, criteria and indicators to measure change (i.e., environmental components valued by WFN and other Indigenous communities). For example, through engagement with Indigenous communities and participating regulatory agencies during the EA, it may be necessary, advisable or beneficial to change the local or regional study area boundaries for collection of additional Indigenous Knowledge or scientific data. Therefore, to provide flexibility, the ToR has not established detailed existing conditions or a full suite of potential environmental effects, as these will be determined during the EA process and presented in the EAR/IS.

Any proposed minor modifications to the ToR will be discussed with the MECP prior to proceeding with the change.

11.1 Dispute Resolution Strategy

Consultation and engagement with Indigenous communities and federal/provincial agencies is expected to be ongoing throughout the EA and into the implementation phase for the Project. All comments and input received from Indigenous communities, the public, government agencies and stakeholders will be documented in a summary table and included in the EAR/IS and in the detailed stand-alone Record of Consultation. The summary table will provide a response to each issue and how the issue was addressed. Where resolution of issues has not been possible, this will be noted, along with a record of all attempts to resolve the issue. The EAR/IS will also include a consultation summary and a record of comments received, and how WFN proposes to reasonably address any issues raised, including any agreement on the approach on how to address the issue.

Webequie First Nation will develop a detailed issues resolution strategy during the EA. The consultation and engagement with other Indigenous communities is intended to be open and respectful process, which offers a means to resolve issues and disputes concerning the EA. Where there are disputes and/or issues that cannot be resolved through discussions, Webequie First Nation would like to maintain its traditional approach to resolving potential disputes as the first step in the process. This traditional approach will consist of a community representatives' group including Elders, Youth, Women and others (to be determined by the community on a case by case basis) to share perspectives, understand the issue(s) identified, maintain respectful dialogue and recommend appropriate options. If no resolution can be made then a conventional dispute resolution process will be used.

12 Other Permits and Approvals

WFN will need to apply for and obtain a number of provincial and federal permits, licences, approvals, authorizations and other forms of clearance prior to the commencement of the Project construction phase. A summary of these potential permits and approvals s presented in Sections 2.1.4 and 2.1.5 of this ToR and is based on the current concept for the Project. This preliminary list of permits/approvals is not exhaustive and will be refined as the project design is further advanced through the EA, with input provided by applicable agencies.

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Appendix A

Relevant Provincial Policies and Plans

APPENDIX A

The table below presents extracts or summarizes statements from provincial planning and policy documents that relate to the relevance of the Webequie Supply Road Project in the context of broader, long-term provincial growth, development and multimodal transportation initiatives in Northern Ontario.

Document	Relevant Visions, Priorities, Objectives, Policy Statements and Directions
2041 Northern Ontario Multimodal Transportation Strategy (Draft) (MTO and MNDM, 2017) **Goals and [Directions]**	Recognition that there is a uniquely close linkage between transportation and the quality of life and economic vibrancy in northern Ontario; that communities' primary means of access (air travel and winter ice roads) are limited and vulnerable to the impacts of climate change; and that flexible and innovative strategic direction is required to enhance transportation reliability and communications to and from these communities. Vision statement: Northern Ontario's transportation system is responsive to economic, social and environmental needs and change, and is transformative in supporting new economic activity, healthy communities and a cleaner environment. Goal 1: Increase and modernize transportation options to support everyday living and economic activity in northern Ontario. [1.8 - Improve quality of roads outside of the provincial highway network that connect to First Nation communities. Ontario will work with the federal government to address core responsibilities to facilitate future enhancements to these roads where they provide critical access to Indigenous communities, including clarification of jurisdiction, ownership, maintenance requirements and governance/funding for road connections relinquished by businesses; and identification of approaches for greater inclusion of First Nations on procurement of road construction and maintenance contracts for these roads]. [1.9 - In response to the Truth and Reconciliation Commission of Canada's Calls to Action, increase and enhance economic opportunities for Indigenous peoples and businesses in government-related transportation activities, programs and projects, including employment opportunities, procurement activities related to transportation improvements/projects and/or new transportation partnerships]. Goal 3: Work with remote and Far North communities to address unique transportation needs with more reliable connections between communities, and to the all-season ground transportation network. Strategy Directions seek to ensure that residents of remote communities and resource development operations have appropriate transportation options, including exploring and supporting agreed upon alternatives to winter roads, such as all-season roads, and the development of an overarching Far North transportation network plan.

Document	Relevant Visions, Priorities, Objectives, Policy Statements and Directions
	[3.6 - Collaboratively pursue the expansion of the all-season road network in partnership with interested First Nation communities and other levels of government and partners, and the continued development of smaller individual projects (in planning or in progress), such as access to North Caribou Lake and Marten Falls.]. Goal 4: Anticipate and respond to economic, technological, environmental and social change to link people, resources and businesses. [4.1 - Expand broadband infrastructure in rural and remote communities in northern Ontario to enable enhanced communications for people and transportation providers]. [4.2 - Deliver services remotely through telecommunications or locally when possible, to decrease the need for people to travel]. Goal 5: Create a cleaner and more sustainable transportation system in northern Ontario by reducing GHG and other environmental and human health impacts. This includes working with Indigenous peoples and remote and northern communities to reduce their reliance on diesel by connecting these communities to electricity grids and implementing renewable energy systems. [5.3 - Move towards a more comprehensive approach to climate change risk resiliency in considering impacts and risks associated with climate change when making decisions on transportation infrastructure investments for northern Ontario (e.g., consideration of all-season roads vs continued reliance on winter roads)].
Growth Plan for Northern Ontario (MOI and MNDMF, 2011)	Developed under the Places to Grow Act (2005), this plan applies to the Northern Ontario Growth Plan Area defined by O.Reg. 416/05, including Webequie First Nation territory, but has no force on First Nation reserve lands. It encompasses and recognizes the inter-relationships between economic development, infrastructure investment, labour market and land use components in promulgating provincial government policies for governing growth in Northern Ontario to 2036. It is structured around six theme areas: economy; people; communities; infrastructure; environment; and Aboriginal peoples. The Plan spawned the Northern Multimodal Transportation Strategy, as well as the creation of the Northern Policy Institute and piloting two regional economic development planning areas. Vision: Includes communities connected to each other and the world, offering dynamic and welcoming environments that are attractive to newcomers. Municipalities, Aboriginal communities, governments and industry work together to achieve shared economic, environmental and community goals. Guiding principles include: - Delivering a complete network of transportation, energy, communications, social and learning infrastructure to support strong, vibrant communities; and

Document	Relevant Visions, Priorities, Objectives, Policy Statements and Directions
	- Partnering with Aboriginal peoples to increase educational and employment opportunities. Relevant policies: 2.2.4 The Province will focus economic development efforts, in the form of five-year action plans on 11 existing and emerging priority economic sectors, including the minerals sector and mining supply services, and the distinct competitive advantages that Northern Ontario can offer within these sectors. 2.2.6 The Province will work to attract investment to Northern Ontario by various means, including measures to address barriers to investment, such as information and communications technology infrastructure, energy costs, labour and transportation. 2.3.5 The Province will grow and diversify the digital economy sector by expanding access to information and communications technology infrastructure to address current and future needs of businesses, organizations and private citizens. 2.3.8 Efforts to grow and diversify the minerals sector and mining supply and services should include: expanding the mining supply and services industry; enabling new mining opportunities; facilitating partnerships among communities and industry to optimize community employment and benefits; and facilitating the entry of new participants and entrepreneurs, including Aboriginal businesses, co-operatives and commercial developers.
Ontario's Mineral Development Strategy (MNDM, 2015)	As part of four strategic priorities, keep Ontario's mining industry growing and prosperous by enhancing Aboriginal voices and meaningful participation, and building a highly-skilled workforce. Increase mineral discovery rates by ensuring that mineral sector transportation planning needs are considered in the Northern Ontario Multimodal Transportation Strategy, which identified and prioritized long-term strategic directions for infrastructure across the North. Improve Ontario mining industry competitiveness by making strategic investments in mining and community-related infrastructure with the private sector, Aboriginal partners and other levels of government. Enhance Aboriginal voices and meaningful participation in economic development through implementation of strategies and approaches to ensure that Aboriginal communities share in the benefits from mining and mineral exploration. As a call to action, includes recognition that the industry must take advantage of new opportunities that come with improved infrastructure (such as the supply road link between Webequie and the McFaulds Lake area) to implement the new mineral development strategy.

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List of Preliminary Evaluation Criteria and Indicators

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List of Preliminary Evaluation Criteria and Indicators

Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Natural Environment	Upland Ecosystems, Riparian Ecosystems and Wetlands	Change (hectares - ha) to upland ecosystems, riparian ecosystems and wetlands (not designated as Provincially Significant Wetland (PSW) Ecosystem availability Ecosystem distribution Ecosystem composition	Potential for short-term and long-term effects on upland ecosystems, riparian ecosystems and wetlands Indigenous communities use of vegetation Habitat for wildlife Ecosystem and landscape level biodiversity	• Indigenous consultation and Indigenous Knowledge • Ministry of Natural Resources and Forestry (MNRF) • Natural Heritage Information Centre (NHIC) • Land Information Ontario (LIO) database • Desktop studies • Field studies
	Fish and Fish Habitat • Brook Trout • Lake Trout • Walleye • Lake Sturgeon	Changes to fish and fish habitat • Number or area (ha) of waterbodies crossed • Fish spawning, nursery or rearing areas (ha) • Habitat quantity (ha) • Habitat quality • Abundance	Potential for short-term and long-term effects on aquatic habitats Representative recreational species Important harvested species	• Indigenous consultation and Indigenous Knowledge • Field studies • MNRF (Fish ON-line database) • LIO Database • Department of Fisheries and Oceans (DFO) • NHIC • Desktop studies
	Provincial Parks, Conservation Reserves, Areas of Natural and Scientific Interest (ANSIs) or Provincially Significant Wetlands	Number and area (ha) of Provincial Parks, Areas of Natural and Scientific Interest (ANSIs), Conservation Reserves, or Provincially Significant Wetland Area affected	Provincial designation of natural features of value or significance Potential for short-term and long-term effects on natural features	• MNRF • NHIC • LIO database • Desktop studies • Field studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Natural Environment (cont'd)	Federal or provincial Species at Risk (SAR) • woodland caribou • wolverine • little brown myotis • barn swallow • common nighthawk • olive-sided flycatcher	Changes to: • Habitat availability (i.e., quantity and quality) • Habitat distribution (i.e., configuration and connectivity) • Survival and reproduction	Federally (*Species At Risk Act*) or provincially (*Endangered Species Act, 2007*) listed species that are afforded protection Important for continued ecological function and diversity of boreal ecosystems Potential for short- and long-term effects on SAR or their habitat	• Indigenous consultation and Indigenous Knowledge • MNRF • NHIC • Committee on the Status of Endangered Wildlife in Canada (COSEWIC) • Species at Risk in Ontario (SARO) list • Committee on the Status of Species at Risk in Ontario (COSSARO) • Desktop studies • Field studies
	Wildlife and wildlife habitat	Changes to wildlife and wildlife habitat • Area (ha) of wildlife habitat crossed • Habitat availability (i.e., quantity and quality) • Habitat distribution (i.e., arrangement and connectivity) • Survival and reproduction	Potential for short-term and long-term effects on wildlife habitat Social/cultural importance to Indigenous communities	• Indigenous consultation and Indigenous Knowledge • Ontario Reptile and Amphibian Atlas • Bat Conservation International • MNRF • NHIC • Desktop studies • Field studies
	Identified Significant Wildlife Habitat	Area (ha) of significant wildlife habitat crossed or fragmented	Potential for short-term and long-term effects on significant wildlife habitat	• Indigenous consultation and Indigenous Knowledge • MNRF • NHIC • Desktop studies • Field studies • Significant Wildlife Habitat Criteria Schedules for Ecoregion 3E

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Natural Environment (cont'd)	Significant Ecological Areas (defined as areas of interest to the MNRF that are ecologically significant and warrant special consideration)	Number and area (ha) of Significant Ecological Areas effected	Potential for short-term and long-term effects on Significant Ecological Areas	• MNRF • NHIC • Desktop studies • Indigenous consultation and Indigenous Knowledge • Field studies
	Migratory Birds	Areas (ha) of migratory bird, feeding habitat and resting areas affected	Potential for short-term and long-term effects on migratory birds and their habitat	• Indigenous consultation and Indigenous Knowledge • NHIC • MNRF - Land Information Ontario geographic data sets • Bird Studies Canada • Ebird • Ontario Breeding Bird Atlas • Environment and Climate Change Canada (ECCC) • Field studies
	Air Quality	Qualitative and quantitative assessment of changes in ambient air quality Vehicle exhaust emissions Dust emissions Greenhouse gas emissions	Sensitivity of human health to air quality Sensitivity of the environment (soils, plants, animals) to air quality	• Indigenous consultation and Indigenous Knowledge • Ontario Ambient Air Quality Criteria (MOECC, 2012) • Air Quality Pollutant Concentrations – Ministry of the Environment, Conservation and Parks (MECP) • 2019 National Inventory Report (1990-2017): – Greenhouse Sources and Sinks in Canada • National Air Pollution Surveillance Network database

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Natural Environment (cont'd)	Noise	Predicted Noise levels – Qualitative assessment of changes to noise levels	Sensitivity of wildlife to changes above existing noise levels - sensory disturbance can impact habitat availability, use and connectivity (movement and behaviour), leading to changes in abundance and distribution of terrestrial animals Sensitivity of humans to changes above existing noise levels - annoyance to individuals/households/communal uses in community based on noise proximity effects	• Indigenous consultation and Indigenous Knowledge • MNRF – LOI database sets • Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning, Publication NPC-300 (MOECC, 2013) • Model Municipal Noise Control By-Law Noise Pollution Control Guideline Construction Equipment, Publication NPC-115 • Equipment list provided by Project engineering team
	Surface Water	Changes to surface water flow Changes to surface water quality	Potential for short- and long-term effects on surface water Surface water is the freshwater habitat for fish and aquatic organisms Importance to supporting fish, recreational use, navigation of watercraft and aesthetics Importance to human use (drinking water or other consumption)	• Indigenous consultation and Indigenous Knowledge • Ontario Flow Assessment Tool (MNRF) • Provincial (Stream) Water Quality Monitoring Network Data Catalogue (MECP) • Desktop studies • Field studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Natural Environment (cont'd)	Groundwater	Changes to groundwater flow Changes to groundwater quality Changes to groundwater quantity	Potential for short- and long-term effects on groundwater regime (flow/recharge interference) Importance in the hydrologic cycle Importance to human use (potable drinking water supply quantity and quality, or other consumptive uses)	• Indigenous consultation and Indigenous Knowledge • MNRF • MECP – Well Water Record Database, Permit to Take Water database • Provincial Groundwater Monitoring Network database • Ontario Geological Survey Bedrock and Quaternary Geology maps • Desktop studies • Field studies
Socio-Economic Environment	Traditional Land and Resource Uses (hunting, gathering, fishing, trapping)	Changes, disruption (number of sites), or loss (ha) of land areas used intensively for traditional activities by community members Number of fish spawning areas affected Number of quality fish harvesting areas affected Number/area (ha) of seasonal hunting areas affected Number/area (ha) of moose mating areas affected Area (ha) used for harvesting of plants for human consumption effected Number of trap lines affected	Social/cultural/economic importance to Indigenous communities	• Indigenous consultation and Indigenous Knowledge • MNRF • Desktop studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Socio-Economic Environment (cont'd)	Commercial Activities and Labour Market	Employment and training opportunities	Project workforce hiring and procurement could affect employment, income, and training	• Stakeholder engagement • Statistics Canada Census Community Profiles and National Household Survey • Provincial and regional economic development reports • Ministry of Energy, Northern Development and Mines (MENDM) • Business Operators • Desktop studies • First Nations employment skills inventory • First Nations business inventory
	Housing and Temporary Accommodation	Temporary and permanent changes to local community population Housing demand Housing supply Services and infrastructure demands	Project requirements for worker accommodation during construction may result in temporary in-migration and increased demand for housing	• Indigenous consultation and Indigenous Knowledge • Statistics Canada Census Community Profiles and National Household Survey • Municipal and provincial government websites • Stakeholder engagement • Business Operators • Desktop studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Socio-Economic Environment (cont'd)	Community Health and Well-being	Nuisance effects Changes in levels of public safety Changes in human health	Potential for nuisance effects, such as noise and air quality, affecting Webequie community Well-being, inclusive of public safety, is a central value for Indigenous communities and land users Potential for Project activities to affect public safety – vehicle/pedestrian collisions Potential for increase in rates of addiction/substance abuse	• Indigenous consultation and Traditional • Knowledge • Stakeholder engagement • Business Operators • Desktop studies
	Mineral and Aggregate Resources	Area (ha) of significant aggregate deposits affected Area (ha) of mines within the study area affected Number of mining claims within the study area affected Area of pits/quarries (ha) within the study area affected	Potential effects on existing aggregate deposits (depletion of, access to) Potential effects on mining operations Potential effects on the mineral exploration industry Potential for uncontrolled access to areas of mineral exploration	• MENDM • MNRF • Ontario's Land Information Directory (OLID) database • Owners • Desktop studies • Indigenous consultation and Indigenous Knowledge
	Recreational Activities (camps, trails, outfitters, movement of small watercraft)	Number/type of activities affected	Of importance to communities to identify, maintain and protect recreational features and pursuits Potential for increased access to traditional lands for non-Indigenous recreation and harvesting	• Indigenous consultation and Indigenous Knowledge • MNRF • Business Operators • Desktop studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Socio-Economic Environment (cont'd)	Provincial Parks, Areas of Natural and Scientific Interest (ANSIs) or Conservation Reserves	Number and area (ha) of Provincial Parks, Areas of Natural and Scientific Interest (ANSIs) or Conservation Reserves affected	Parks and protected areas have social, recreational, environmental and health/ well-being values to communities and users	• Indigenous consultation and Indigenous Knowledge • MNRF • Business Operators • Desktop studies
Cultural Environment	Aboriginal and Treaty Rights and Interests	Changes in preferred harvested species Changes to, or restrictions on, preferred harvesting methods Changes to quantity and quality of cultural use and spiritual locations and access Changes in the experience of lands and resources for cultural purposes	Aboriginal Rights, Treaty Rights, and interests in and current use of lands and resources for cultural purposes (e.g., hunting, trapping, fishing, agriculture, use of plants) are important to Indigenous communities and individuals	• Indigenous consultation and Indigenous Knowledge • Treaty 9 • MECP • MNRF • MENDM • Indigenous Services Canada • Desktop studies
	Archaeological Resources	Number and/or area (ha) of Indigenous sacred, burial or spiritually significant sites affected, as identified by communities Number and area (ha) of Euro-Canadian archaeological sites affected	Archaeological remains or artifacts are a non-renewable resource that could be affected by project activities Cultural and spiritual importance to Indigenous communities Archaeological sites are protected under the *Ontario Heritage Act*	• Indigenous consultation and Indigenous Knowledge • Ministry of Tourism, Culture and Sport (MTCS) - Ontario Archaeological Sites Database • Existing archaeological assessments/reports • Desktop studies

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Environment Factor	Criterion	Indicators	Rationale for Selection of Indicators	Data Source
Cultural Environment (cont'd)	Built Heritage and Cultural Heritage Landscapes	Number and type of Indigenous or non-Indigenous culturally significant built heritage features (outpost, trapping or hunting camp, etc.) and/or cultural heritage landscapes of value	Built heritage and cultural heritage landscapes are a non-renewable resource that could be affected by project activities Built heritage resources and cultural landscapes may have spiritual and symbolic meaning for Canadians and Indigenous communities Built heritage resources and landscapes are protected under the *Ontario Heritage Act*	• Indigenous consultation and Indigenous Knowledge • Ministry of Tourism, Culture and Sport (MTCS) database • Existing built heritage and cultural landscape assessments/reports • Desktop studies
Technical Considerations	Safety and Reliability	Conformance of road to provincial road safety standards and ability to provide reliability for users	Safety and reliability are primary technical and socio-economic concerns for Webequie community and mineral exploration/development sector users	• Indigenous consultation and Indigenous Knowledge • Ministry of Transportation (MTO) • Canadian Highway Bridge Design Code • Transportation Association of Canada (TAC) - Geometric Design Standards • Desktop and engineering studies
	Constructability	Terrain and soil stability Local design considerations	Constructability is a key technical consideration for the Project due to the remote nature of study area	• Engineering and design standards for roads • Environmental agencies' guidelines and regulations

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Technical Considerations (cont'd)	Cost	Construction capital costs Operations and maintenance cost Length (km) of all-season road	Providing value and cost-effective road to WFN and Province is considered a significant technical consideration	• Industry engineering design, construction and operation/maintenance standards and guidelines • MTO • TAC
	Location of Supportive Infrastructure (aggregate supply areas, camps, laydown/storage yards, access roads)	Proximity/distance (km) to corridor of aggregate source sites, including quality of aggregate deposits Capability to support viable temporary construction camps Constraints to haulage/movement of materials and equipment Length (km) of temporary and permanent access roads	Location of supportive infrastructure informs constructability, construction budget, and operations and maintenance costs	• Indigenous consultation and Indigenous Knowledge • Industry engineering design, construction and operation/maintenance standards and guidelines • MTO • TAC

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