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Marten Falls First Nation

Draft Terms of Reference
Marten Falls Community Access Road – Environmental Assessment

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Appendices

Appendix A. Draft Criteria and Indicators for Alternatives Evaluation
Appendix B. Draft Environmental Assessment Consultation Plan

List of Acronyms and Abbreviations

AZA ..... Animbiigoo-Zaagi'igan Anishinaabek First Nation
CAR ..... Community Access Road
CBLUP ..... Community Based Land Use Plan
EA ..... Environmental Assessment
EAA ..... *Environmental Assessment Act*
ENDM ..... Ministry of Energy, Northern Development and Mines
GANRAC ..... Geraldton Area Natural Resource Advisory Committee
GHG ..... Greenhouse Gas
GIS ..... Geographic Information System
IAAC ..... Impact Assessment Agency of Canada
ISO ..... International Standards Organization
km ..... Kilometres
LiDAR ..... Light Detection and Ranging
MECP ..... Ministry of Environment, Conservation and Parks
MFFN ..... Marten Falls First Nation
mm ..... Millimetres
MNO ..... Métis Nation of Ontario
MNRF ..... Ministry of Natural Resources and Forestry
MOECC ..... Ministry of the Environment, and Climate Change
MOU ..... Memorandum of Understanding
MHSTCI ..... Ministry of Heritage, Sport, Tourism, and Culture Industries
MTCS ..... Ministry of Tourism, Culture and Sport
MTO ..... Ministry of Transportation
ON ..... Ontario
O. Reg. ..... Ontario Regulation
PIC ..... Public Information Centre
ROW ..... right-of-way
RSMIN ..... Red Sky Métis Independent Nation
ToR ..... Terms of Reference

1. Introduction

Marten Falls First Nation (MFFN; the community) is a remote First Nation community in northern Ontario, approximately 430 kilometres (km) from Thunder Bay, Ontario, located at the junction of the Albany and Ogoki rivers. The community is proposing an all-season Community Access Road (CAR; the Project) that will connect the MFFN community to the Ontario provincial highway network (**Figure 1-1**). The proposed Project includes construction and operation of an all-season CAR consisting of:

- approximately 190 km to 230 km of two-lane gravel all-season road on a new right-of-way (ROW);
- approximately 100 metre (m) wide ROW cleared to a width of 60 m; and
- proposed designated speed limit of 80 km/hr.

The MFFN community is currently accessible year-round by air transportation out of Thunder bay and Nakina and by a winter access road constructed on an annual basis, if conditions permit. Since the 1990s, MFFN has received provincial funding to maintain 140 km of winter road to the community. However, the North[1] is noted as vulnerable to the impacts of climate change in *Building Better Lives: Ontario's Long-term Infrastructure Plan* (MOI 2018). Therefore, interests and concerns of the community have identified a desire for improved all-season community access to the provincial highway network in the south, near Painter Lake.

In 2009, MFFN was successful in acquiring funds from the Northern Ontario Heritage Fund Corporation to complete the 2011 MFFN Winter Road Realignment / All Weather Road Project, Feasibility Analysis and Business Plan Report (W. L. Lees & Associates and Marten Falls Logistics-LP. 2011; MFFN 2017). This report built on previous studies and was used by MFFN to guide discussions with government, industry, and adjacent First Nations on improving community access to MFFN. In 2016 the Ministry of Northern Development and Mines (now the Ministry of Energy, Northern Development and Mines [ENDM]) confirmed financial support on permitting the Project (MFFN 2017) and Indigenous and Northern Affairs Canada (now Indigenous Services Canada, and Crown-Indigenous Relations and Northern Affairs Canada) provided financial support under the Building Canada Fund for work related to realignment of the winter road to higher ground.

The proposed Project is subject to the Ontario *Environmental Assessment Act* (EAA). In April 2018, MFFN signed a voluntary agreement with the Ministry of the Environment, Conservation and Parks (MECP) to prepare an Individual Environmental Assessment (EA). As the proponent, MFFN has determined that the planning and EA process for this Project will follow a community-led approach, meaning the MFFN community helps to develop solutions and advance decisions about the CAR. MFFN, as the proponent or owner of the Project, has formed a Project Team that includes MFFN members and acts with input, guidance and direction from the MFFN Chief and Council, MFFN Community Member Advisors and MFFN membership (**Section 2**). MFFN will also undertake consultation with government agencies, the public, industry, non-government organizations, local and regional stakeholders and with neighbouring Indigenous communities to allow for an EA process that carefully addresses traditions, Indigenous Knowledge[2] and land use.

Through preparation of this Terms of Reference (ToR), MFFN is commencing a community-led provincial EA process for the Project. The ToR sets out the framework MFFN must follow during preparation of the Individual EA. This ToR has been prepared in accordance with the EAA and the *Code of Practice for Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (Code of Practice; MECP 2019a) and will be submitted to the Minister of MECP for review and approval. Once the ToR is approved by the Minister, MFFN will proceed with preparation of the Individual EA in accordance with the Minister-approved ToR and the EAA.

1. *Northern Ontario is a geographic and administrative region of Ontario referred to as "the North".*
2. *In the ToR, the term Anishinabek Knowledge is used to describe Indigenous Knowledge associated specifically with Anishinabek communities including MFFN, while the term Indigenous Knowledge is used when referring to knowledge from Indigenous communities that may include non-Anishinabek communities.*

Gander River
Albany River
Marten Falls 65
Eabamet Lake
Gourlie Creek
Wabimeig Lake
ALBANY RIVER PROVINCIAL PARK
Dark River
Ruby Creek
Makokibatan Lake
Calbert Creek
Ogoki River
LITTLE CURRENT RIVER PROVINCIAL PARK
Ogoki Lake
OGOKI RIVER PROVINCIAL PARK (WATERWAY CLASS)
Reckett Creek
La Rose Creek
Britt Creek
Little Current River
Papoose Creek
Ara Lake
Meta Lake
Abamasagi Lake
OGOKI RD
Aroland First Nations
O'Sullivan Lake
Hanover River
Esnagami Lake
Wilgar Creek
Johnson Creek
643
Nakina
584
Drowning River
Singing River

Ontario Index Map
Quebec
Attawapiskat
Ontario
Marten Falls First Nation
Hearst
Kapuskasing
U.S.A.
Project Location

Key Map
Windsor Lake
Armstrong
Nakina
Lake Nipigon
Geraldton
Hornepayne
11
Manitouwadge
Kabinakagami Lake
Dog Lake
Lake Superior
17
Map Location

Legend

- Highway
- Local Road
- Resource / Recreation Road
- Existing Winter Access Road
- Railway
- Provincial Park
- Woodlands
- Waterbody
- Wetlands
- Far North Boundary
- First Nation Reserve
- District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Project Location

0 5 10 20 30
Kilometres
Datum: NAD 1983 UTM Zone 16N

May, 2019	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

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Figure 1-1

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2. The Proponent

2.1 Proponent Identification

The proponent of the proposed Project is Marten Falls First Nation (MFFN), a remote Indigenous community in northern Ontario located at the junction of the Albany and Ogoki rivers, approximately 430 km from Thunder Bay, Ontario. MFFN will design and permit the CAR, while options for road ownership, maintenance activities and liability are being considered in discussion with the Province.

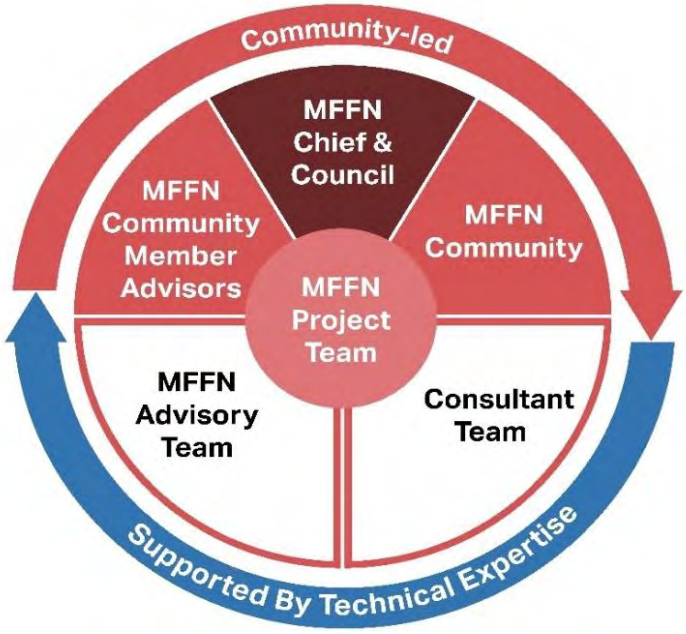
2.1.1 Community-Led Process

The planning of the Project is community-led; meaning MFFN community membership will develop solutions and advance decisions on the CAR. MFFN, as the Proponent or owner of the Project, has formed a Project Team that includes MFFN community members. The Project Team acts with guidance, direction and input from MFFN Chief and Council, MFFN Community Member Advisers and MFFN community membership to:

- Effectively manage the Project so as to meet the requirements of the EA process;
- Keep MFFN community membership, as the proponent, up-to-date of plans and progress, and to gather direction and input to enable decisions related to the CAR; and
- Consult and engage members of MFFN and neighbourhood Indigenous communities.

For MFFN community membership, given they are the owners of the Project, there are two distinct roles: 1) involvement in the community-led process as proponent of the Project; and 2) an Indigenous community potentially affected by the Project**. Figure 2-1** depicts the structure of the community-led process established to guide the Project through the EA process.

Figure 2-1: Community-led Process



2.1.2 Proponent Contact Information

CAR main contact:

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  and

- Qasim Saddique
  Project Director

  c/o Marten Falls First Nation
  General Delivery
  Ogoki Post
  Ontario, P0T 2L0
  Telephone: 1-800-764-9114
  Email: info@martenfallsaccessroad.ca

MFFN has retained AECOM Canada Ltd. (AECOM) to support preparation of this ToR. AECOM will provide EA and preliminary design services throughout the environmental planning process of the Project. The EA consultant contact is:

- Christine Cinnamon
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3. Environmental Assessment Process

The proposed Project is subject to the Ontario EA process and may also require the completion of a federal EA. In addition, there will be a number of other permits and approvals necessary prior to construction. A list of permits and approvals that may be required for the Project is provided in **Section 13**. The following sections provide details regarding provincial and federal EA requirements, how the EA is to be prepared, and information on EA and project management principles that are key to successful planning and that will be followed throughout the EA process.

3.1 Provincial Environmental Assessment Requirements

The Project is subject to the Ontario EAA. In April 2018, MFFN signed an agreement with the MECP, thereby confirming the environmental planning process to be undertaken for the proposed Project, including the need to prepare an Individual EA.

The Project may require the completion of Class EAs prior to proceeding with construction. The required Class EAs will be determined during the EA in consultation with government agencies. Where possible, the Individual EA will be prepared in a manner that meets the requirements of Class EAs confirmed applicable to the Project. A preliminary review of class EAs has been undertaken and the following have been identified as potentially applicable to the Project:

- Ministry of Northern Development and Mines Class EA;
- Class EA for Provincial Parks and Conservation Reserves;
- Forest Management on Crown Lands Class EA;
- Resource Stewardship and Facility Development Class EA;
- Public Works Class EA; and
- Provincial Transportation Class EA.

3.2 Federal Environmental Assessment Requirements

The Project is listed under the Physical Activities Regulations, SOR/2019-285, *Impact Assessment Act* 2019 (*Impact Assessment Agency of Canada 2019)* as a designated project because the Project meets the definition of a physical activity for transportation projects set out in the regulation as follows:

> ***s 51*** *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 way*

A Detailed Project Description is being prepared and is anticipated to be submitted to the Impact Assessment Agency of Canada (IAAC) in fall 2019 to confirm whether a federal Impact Assessment is required for the Project. If it is determined that a federal Impact Assessment is required, the IAAC will issue Tailored Impact Statement Guidelines that will provide direction and requirements for the proponent in preparing an Impact Statement.

3.3 Canada-Ontario Agreement on Environmental Assessment Co-operation

Under the Canada-Ontario Agreement on Environmental Assessment Co-operation, projects that require review under both federal and provincial EA legislation may undergo a single, co-operative assessment, meeting the legal requirements of both federal and provincial governments. The *Impact Assessment Act, 2019* includes provisions for co-operation and co-ordinated action between two orders of government, with the aim to have "one project-one review". MFFN is working with both levels of government to more fully understand what a "single, co-operative assessment "would entail, particularly given the recent passing of the *Impact Assessment Act*.

3.4 Preparation of the Environmental Assessment

The first step in the application for approval, under the EAA, to proceed with an undertaking is the submission and approval of a ToR. A ToR is a document prepared by the proponent of the undertaking and submitted to the MECP for approval. It sets out the framework for the planning and decision-making process to be followed by the proponent during the preparation of an EA. Once the ToR is approved by the Minister, MFFN will commence the EA for the proposed Project in accordance with the EAA and the ToR.

The EAA requires the proponent of an undertaking to state in the ToR how the EA will be prepared. Section 6.1(2) of the EAA identifies the generic requirements of what an EA should include, whereas subsection 6.1(3) allows for an EA to consist of information other than that required by subsection 6.1(2). Therefore, the ToR must either:

- *6(2)(a) – Indicate that the EA will be prepared in accordance with the requirements set out in section 6.1(2);*
- *6(2)(b) – Indicate that the EA will be prepared in accordance with such requirements as may be prescribed for the type of undertaking the proponent wishes to proceed with; or*
- *6(2)(c) – Set out in detail the requirements for the preparation of the EA.*

For the Project, the EA will be prepared in accordance with subsections 6.1(3) and 6(2)(c) of the EAA. The EA will be prepared in this manner because it will not meet the requirements of subsection 6.1(2)(b)(iii), subsection 6.1(2)(c) and subsection 6.1(2)(d). However, the EA will be prepared to meet the other requirements of 6.1(2). The rationale for not meeting the requirements of subsection 6.1(2)(b)(iii) *Alternatives to the Undertaking,* and subsections 6.1(2)(c) and 6.1(2)(d) with respect to alternatives to the undertaking, is that an all-season access road to MFFN has been identified in *Ontario's Long-term Infrastructure Plan, 2017* (Infrastructure Plan; MOI 2018). Therefore, MFFN is not considering different types of transportation provision projects (such as rail) as alternatives to the undertaking (**Section 6.2**).

In summary, the EA for the proposed Project will consist of:

- description and purpose of the undertaking;
- description and statement of the rationale for:
  - the undertaking;
  - the alternative methods of carrying out the undertaking;
- for the undertaking and alternative methods, a description of:
  - the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly;

  - the effects that will be caused or that might reasonably be expected to be caused to the environment;
  - 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;
- an evaluation of the advantages and disadvantages to the environment of the undertaking and alternative methods; and
- a description of any consultation about the undertaking by the proponent and the results of the consultation.

It is anticipated that changes to the proposed approach of preparing the Individual EA outlined in the ToR may be necessary as information becomes available through studies, agency discussions and input received during consultation activities. **Section 12** outlines how new circumstances will be accommodated throughout the EA process.

The Individual EA will be submitted to the MECP and Government Review Team appointed for the Project. The review process, outlined below, takes a minimum of 30 weeks for the Minister to reach a decision on an EA:

- Public and Government Review: the MECP, Indigenous communities, stakeholders (public and agencies) and any other interested party are provided seven (7) weeks to comment on the Individual EA.
- MECP Review: the MECP has five (5) weeks to prepare a Ministry Review report that considers the proponents responses to comments received through the public and government review, and to determine whether the EA is in compliance with the approved ToR and meets the requirements of the EAA.
- Public Consultation on the Ministry Review: Indigenous communities, stakeholders and any other interested persons have five (5) weeks to provide comments on the Ministry Review Report. The review is intended to identify any outstanding issues and how they may be resolved, and for requests for a hearing to be submitted.
- Minister Decision: Once the public consultation on the Ministry Review is finished, the Minister has 13 weeks to make a decision. The EA must be approved before the Project can proceed. The Minister may:
  - refer the undertaking to mediation;
  - refer the undertaking to the Environmental Review Tribunal, an independent and impartial tribunal that holds public hearings on undertakings; or
  - make a decision to approve, approve with conditions, or refuse the undertaking.

3.4.1 Environmental Assessment and Project Management Principles

There are a number of EA and project management principles that are key to successful planning and approval under the EAA. Incorporating these principles throughout the EA process will increase the likelihood that the EA for the undertaking will meet the requirements of the EAA. It is understood that the MECP evaluates EAs against these principles when undertaking their review. MFFN will incorporate both the EA and project management principles while undertaking this Project.

The EA principles include:

- Consult with potentially affected and other interested persons;
- Consider a reasonable range of alternatives;
- Consider all aspects of the environment;
- Systematically evaluate net environmental effects; and
- Provide clear, complete documentation.

The project management principles include:

- Adhere to timelines in accordance with O. Reg. 616/98 – *Deadlines Regulation* and involve interested persons early in the EA process;
- Apply the EA process clearly and in a manner consistent to similar undertakings;
- Be open and transparent to enable interested persons to follow the planning and decision-making process undertaken;
- Identify other approvals required for the undertaking to proceed and co-ordinate approvals, where possible;
- Use the best available information based on sound scientific, engineering, and planning practices and processes, and on input obtained through consultation activities;
- Provide an appropriate level of detail to fulfil the requirements of the EAA, considering the nature and complexity of the undertaking, potential for environmental effects, and the level of public interest; and
- Minimize potential harm and enhance benefits to the environment by recommending impact management measures and opportunities to enhance societal benefits.

4. Purpose of the Project and the Study

The Project is proposed to provide reliable all-season multi-purpose ground access between MFFN and the provincial highway network. Reliable access will increase travel safety, reduce the price of food, fuel and supplies, and provide the community with future economic development opportunities. Although the primary use of the CAR will be to service MFFN, Provincial interest is for one road to serve both community access and industrial supply needs. Therefore, the Project will be for a multi-purpose road built to meet industrial use specifications. There are currently no plans to decommission the Project. To accommodate any changes and / or new circumstances arising during the environmental planning and design process, the purpose statement will be reviewed and modified as necessary throughout the development of the EA. The final purpose statement will be included in the EA that will be submitted to the MECP.

The purpose of the study is to fulfill the requirements for an Individual EA for the Project. The EA will confirm the preferred route, identify the potential effects of the Project and recommend impact management measures to avoid, eliminate or minimize potential environmental effects.

5. Rationale for and Description of the Undertaking

The following sections provide the rationale for and description of the proposed undertaking, including the anticipated activities associated with construction and operations of the Project. The final rationale and description of the undertaking will be included in the EA.

5.1 Rationale for the Proposed Undertaking

Marten Falls is currently accessible by air and the winter road system, and typically receives between 2.5 and 3.0 tonnes of supplies per capita annually. Although transportation by air provides year-round access, it is expensive in comparison to alternate modes of travel. The winter road system provides for vehicular access to the community but has been determined to be insufficient for community and other transportation needs primarily due to the limited reliability of open winter road access.

Since the 1990s, MFFN has received provincial and federal funding to maintain 140 km of winter road to MFFN. The period of useful and safe availability of a winter road system is dependent on weather. The winter road system to the MFFN community is typically operational about six to eight weeks annually between the months of February and March.

In 2011, the Ministry of Natural Resources and Forestry (MNRF) approved the construction of an upgraded winter road from Painter Lake Road to MFFN to provide more reliable access, reduce the cost of transporting supplies, increase safety of winter road travel, and to provide the community with economic opportunities associated with mineral developments in MFFN territory or near the Project, including the Ring of Fire. The Ring of Fire is a remote area of northwestern Ontario, which is an area of significant mineralization and potential large mineral reserve in Ontario (KBM Resources Group 2014). The development of mineral deposits could offer considerable employment opportunities and other benefits to surrounding Matawa First Nation communities, including MFFN (W. L. Lees & Associates Ltd. and Marten Falls Logistics-LP. 2011). Currently, no all-season ground access exists to the Ring of Fire mining claims or mining claims of interest north and west of the community.

The use of the winter road system also has a number of travel, safety and environmental concerns:

- Operational issues associated with terrain constraints (i.e., land that is rocky, uneven, steep, muskeg, temporary watercourse crossings) and a short period for safe operational use;
- Potential for environmental effects due to, but not limited to, fuel spills, equipment use in challenging conditions and watercourse crossings; and
- Speed and safety concerns associated with narrow, winding roads with sharp curves and watercourse crossings.

Due to the limited availability of the winter road, the community is reliant on air-transportation of the goods needed to sustain people living in the community. This has resulted in high costs to ship goods and materials, food and fuel to the community. Interests and concerns of the community have identified a strong desire for improved all-season community access. The Project is community-led, and this has been a vision and a desire of the community for over 20 years.

The need for all-season access of northern communities is identified in the Ontario's Infrastructure Plan (MOI 2018). The North is noted as vulnerable to the impacts of climate change where winter road systems are relied on for access and transportation of supplies. An all-season access road from Nakina to MFFN is listed in the Infrastructure Plan, which includes a commitment from the provincial government to provide funding to plan for an all-season road. Ontario's *Grown Plan for Northern Ontario, 2011* also includes a commitment to work with remote communities for improved access.

5.2 Description of the Proposed Undertaking

MFFN is proposing to construct a new all-season multi-purpose CAR from the existing Painter Lake Road located approximately 57 km north of Nakina, Ontario to MFFN. It is proposed that the CAR be a two-lane gravel roadway. The proposed ROW for the CAR is expected to be 100 m; however, additional space may be required during construction for access, borrow areas and temporary work areas. The EA will include the consideration of construction and operation activities for the CAR. Options for road ownership, maintenance activities and liability are being considered in discussion with the Province.

Project engineering is currently at the conceptual level. Project components are anticipated to include:

- Between 190 km to 230 km of all-season gravel road, depending on the preferred route;
- Approximately 50 bridge and / or culvert installations for river and stream crossings;
- Culverts for water flow connectivity and to balance water levels;
- Borrow areas;
- Temporary access roads and construction of temporary crossings; and
- Temporary work areas and camps.

Project component details will be revised based on the results of the ongoing engineering design, environmental studies and consultation. The MNRF has provided recommended practices for the construction of access roads on Crown Land in their publication of *Environmental Guidelines for Access Roads and Water Crossings*.

The following sections provide additional information on the Project components.

5.2.1 Project Components

5.2.1.1 Road

The CAR will be built within a 100 m ROW cleared to a width of 60 m for permanent use with additional temporary clearing occurring in certain locations for construction to accommodate activities such as aggregate sources (e.g., quarries), temporary contractor laydown areas, and debris and / or timber stockpiles. Vehicles anticipated to use the CAR include personal vehicles (e.g., cars, vans, small trucks, motorcycles), and commercial vehicles including larger trucks up to the legal road limits on weight and size. The number of anticipated vehicles to use the CAR is not known at this time. The CAR will be designed using an Annual Average Daily Traffic amount of up to 400 and in accordance with the Ministry of Transportation's (MTO) Highway Classification, Design Speed (i.e., 80 km/hr), Geometric Design Standards Manual for Ontario Highways (MTO 1985) and the Canadian Highway Bridge Design Codes (Canadian Standards Association 2014). The Project will propose design standards and criteria to be reviewed and approved by MTO and MNRF prior to use in the designs. The predominant building materials will be blasted rockfill and composite excavation material capped with granular surface material. The majority of blasted rockfill will be obtained from rock outcrops within and / or adjacent to the ROW. The road will be designed and built to approximately 1 m to 1.5 m above the original ground elevation. The cross-section will have a 10 m top width and recoverable side slopes of 4:1.

5.2.1.2 Bridges and Culverts

Bridges will be required over the various waterways to provide grade separation with sizes ranging from single span to multi-span bridges. They will be designed to carry two lanes of traffic with appropriate shoulder widths. The foundation support for the bridge abutments are expected to consist of steel H-piles with concrete cast-in-place caps driven to refusal.

Equalization culverts will be installed at locations where it is determined that spring-melt or storm runoff needs to pass from one side of the CAR to the other to prevent flooding and / or erosion. The purpose of equalization culverts is to maintain the existing surface water drainage patterns in the area. Culverts will be put in place as construction progresses along the preferred route.

Culverts will range from small diameter corrugated steel pipes for overland water drainage to large concrete box or steel arch culverts for smaller waterways. Small diameter corrugated steel pipe culverts will be a minimum of 600 millimetres (mm) in diameter, large concrete box culverts will be an approximately 3 m to 4.5 m square, and large steel arch culverts will range from approximately 3 m up to 8 m in diameter with a semi-circular shape.

5.2.1.3 Borrow Areas

Rock quarries and borrow areas will be developed to provide crushed rock and granular materials for the construction of the road and temporary access roads. Most of the rock required for construction will come from quarry sites adjacent to the proposed CAR. Where this is not possible, temporary access roads will be established to connect the various Project components as required and will be limited in length to the extent feasible. The total volume and type of borrow materials, and therefore number of quarries and borrow areas required, will be contingent upon the final route selection (i.e., preferred route).

5.2.1.4 Ancillary Infrastructure

Temporary access roads may be required to access the ROW. The purpose of the temporary access roads is to facilitate emergency access, equipment and personnel access, and to provide access to and from quarries and borrow sites. Most of these temporary roads will be developed within the ROW of the CAR with the exception of those required for access to the quarries and borrow sites. The temporary access roads will be cleared, but not grubbed, and will be approximately 10 m wide to accommodate equipment movement. Upon completion of construction, the temporary access roads will either be decommissioned, or blocked to discourage public use but facilitate access for ongoing road maintenance.

Temporary construction camps and staging areas will be established at various locations along the ROW to support crews, store equipment, vehicles, materials and supplies.

5.2.2 Project Activities

The proposed Project will be executed in three main phases, which are briefly described below. Each phase will be further detailed as part of the EA.

- **Planning and Design Phase:**

  The first step in project planning and design is the process of defining the undertaking, which includes the identification of activities and need for ancillary infrastructure. Once the project has been defined, possible alternatives are identified, and a review of legislation is undertaken to determine approvals that will be required. For this Project, an approval under the Ontario EAA is required. Therefore, planning and design has included the preparation of a ToR. Once the ToR is approved, an EA will be prepared in accordance

with the ToR and EAA. The preliminary design process is occurring concurrently with the EA process and will include surveying and geotechnical investigations. It is anticipated that Project planning will take approximately three to four years, and that the detailed design process will begin once the Project has received EA approval and funding has been secured. Detailed design is expected to take several years to complete. To facilitate the construction of the CAR, MFFN will need to acquire a number of permits and approvals from provincial, federal government and other jurisdictional agencies and it is anticipated these will be obtained during the planning and design phase of the Project.

- **Construction Phase:**
  Activities during this phase of the Project will include site preparation (clearing, grubbing and grading) of the ROW of the CAR and areas required for temporary access roads, borrow areas, and ancillary infrastructure. Once site preparation activities have been completed, construction camps will be built, quarries and borrow areas will be developed and bridges and culvert crossings for the CAR and temporary access roads will be constructed. It is anticipated that construction will be undertaken in several phases starting from the south near Painter Lake Road and working northward towards the MFFN community. The number of construction fronts that will be utilized to build the CAR will be determined at a later stage of Project design and will be contingent on several factors such as availability of funding, construction equipment and labour and site accessibility. Materials, including rock fill, aggregate and composite material will be loaded, hauled, dumped, spread, graded, compacted, trimmed, and shaped before final surfacing with gravel. Roadway signs will be installed, and sediment control measures and dust suppression, will be implemented as required. Once the CAR is constructed, temporary infrastructure used to facilitate construction will be demobilized and decommissioned, and disturbed areas will be restored. It is anticipated that this phase of the Project will be in excess of five years. Construction will partially overlap with the planning and design phase, with construction anticipated to start approximately 1 year following EA approval. The majority of construction activities will occur during non-frozen conditions.

  It is expected that the following pieces of equipment will be used during construction:

  - Crushing Spreads;
  - Hauling Trucks;
  - Excavators;
  - Loaders;
  - Dozers;
  - Graders;
  - Packers;
  - Water Trucks;
  - Backhoes;
  - Half Tons; and
  - Fuel tanks.

  During construction, the Contractor will be responsible for maintaining the temporary access roads, quarries and other related elements of construction activities.

- **Operations Phase:**

  Activities during this phase of the Project include vehicular road use, routine grading, adding gravel, vegetation management, and cleaning culverts. Where possible, aggregate materials will be sourced from borrow areas developed during Project construction and will be deposited on the road surface using dump trucks, dozers and graders. Dust suppression may be applied to road surfaces during the summer months and during the winter ploughs, graders, loaders and dump trucks may be used to clear snow.

The Project is anticipated to result in the following emissions, discharges and wastes:

- **Emissions:**

  During construction activities, atmospheric emissions including greenhouse gases will be created and released into the surrounding environment from on-site construction vehicles, equipment, machinery and activities associated with the proposed Project. These contaminants will include sulphur dioxide, nitrous oxides, carbon dioxide, particulate matter, and volatile organic compounds.

During the operations phase, vehicular traffic use may change local air quality due to the year-round access to MFFN. The change would be due to vehicle use and associated emissions, elevated road dust generation and from road maintenance activities. However, emissions related to travel by air of persons and goods are expected to decrease with the implementation of the CAR.

- **Discharges:**

  With the exception of dewatering discharges during construction, the Project will not involve processing streams or liquid discharges. During construction and operation, there is the possibility of accidental leaks or spills from construction equipment and vehicle use. In preparation for construction, a Spill Management Plan will be developed to mitigate and manage accidental releases.

- **Wastes:**

  Waste management and disposal for the Project will be done in accordance with Ontario's *Environmental Protection Act, 1990*.

  The Project's ROW clearing will involve removal of timber and grubbing. Usable timber will be segregated and collected for reuse. Unusable timber and material will be collected and burned at designated sites. When on Crown land, forest resources licencing requirements will be adhered to.

  Domestic waste generated during construction will be collected in appropriate on-site containment and disposed of at approved waste facilities. The closest waste management site to the Project is to the immediate southwest of the intersection of Anaconda and Ogoki Road, approximately 11 km northwest of Aroland First Nation.

  Petroleum wastes produced during construction (e.g., oils, greases) will be properly collected, stored, managed and disposed or recycled at an approved licensed disposal facility. General Registration under *Ontario Regulation 347* of the *Environmental Act, 1990* will be adhered to with respect to hazardous waste and liquid waste management.

Currently, there are no plans for decommissioning the CAR. Discussions are ongoing between MFFN and the Province regarding maintenance responsibility for the CAR, including access roads to borrow areas required for ongoing CAR maintenance. Decommissioning of temporary components that are no longer required, once construction of the CAR is complete, will occur as a part of the construction phase of the Project as noted above. These temporary components include: access roads, quarries, borrow areas, and construction camps and staging areas not required to maintain the CAR once built.

It is expected that the existing winter road will no longer be maintained once the CAR is commissioned and it will be allowed to revegetate naturally. Should the existing winter road not be maintained, entrances to the winter road may be blocked, where feasible.

It is recognized that Project components could change as engineering and environmental studies progress, and input is received from Indigenous communities, stakeholders and government agencies. Therefore, the description of the undertaking is likely to evolve throughout the EA process. A detailed description of the proposed undertaking will be provided in the EA and will be sufficiently detailed to identify and assess potential effects during the construction and operations phases of the Project.

6. Description of and Rationale for Alternatives

6.1 Overview

A key step of the EA process identified in the Code of Practice is the requirement under subsection 6.1(2) of the EAA to identify and evaluate a reasonable range of alternatives (MECP 2019a). The purpose of an evaluation of alternatives is to select the most appropriate means of addressing the identified problem or opportunity. The EAA makes reference to two types of alternatives: "alternatives to" and "alternative methods":

- *Alternatives to* are the functionally different ways of approaching and dealing with a problem or opportunity. For example, "alternatives to" may include options such as construction and operation of a new CAR, construction and operation of new rail infrastructure, modifications to existing winter access road alignment, improvements to existing air and / or water transportation infrastructure, and not proceeding with the Project (i.e., do nothing).
- *Alternative methods* are the different ways of performing the same activity, which for this Project would be a range of different alignment options of a CAR (i.e., alternative routes).

6.2 Approach to Considering "Alternatives To"

Ontario's Infrastructure Plan (MOI 2018) acknowledges that the communities and urban centres in Northern Ontario are in need of a multimodal transportation system and that the North is especially vulnerable to the impacts of climate change, particularly in communities that rely on seasonal winter roads. The proposed Project is identified in the Infrastructure Plan, which states that the Province is working with MFFN to plan and construct an all-season access road connecting the community to the existing provincial highway network in Nakina. Building the Project is part of the government's commitment to create jobs, provide long-term benefits and improve the quality of life for people in the region.

To address the problem of unreliable community access to MFFN, the provincial government has provided funding for permitting and approval of an all-season CAR. The Code of Practice allows for proponents to limit the discussion of previously examined alternatives in the EA when alternatives have been previously considered through a separate decision-making process such as a provincial government priority initiative (MECP 2019a). In these cases, the proponent must document the rationale for not examining alternatives and the extent to which any previous planning supports the provincial government priority initiative.

The idea that alternatives to the Project have been previously considered through other planning studies is further supported by a number of provincial government plans that include policies and initiatives for an improved transportation system and community access in Northern Ontario. *The Growth Plan for Northern Ontario* (Growth Plan; Ministry of Infrastructure and Ministry of Northern Development, Mines and Forestry 2011) outlines the Province's commitment to work with remote communities for improved access. To implement the transportation directions of the Growth Plan, MTO and ENDM are developing a 2041 Northern Ontario Multimodal Transportation Strategy (the Strategy). Constructing a CAR will align with the following goals of the draft Strategy:

- Goal 1: Connected and Prosperous;
- Goal 2: Safe and Reliable;

- Goal 3: Address Remote and Far North Challenges;
- Goal 4: Integrated and Innovative; and
- Goal 5: Healthy and Sustainable.

Since the proposed Project has already been identified in the provincial Infrastructure Plan, MFFN is not conducting an assessment of alternatives to the undertaking. It is understood that the government would have considered the alternatives to the proposed Project when committing to provide funding for an all-season access road. To reach the decision of proceeding with a CAR, consideration of a range of alternatives to the CAR that are within MFFN's ability to implement would have been determined less preferable. Therefore, the alternatives to the undertaking have been previously identified before the study for this Project commenced under the EAA.

However, the Code of Practice does require proponents of an undertaking to consider the "do nothing" alternative. The alternative to "do nothing" is the option of not proceeding with the Project, which would require MFFN to continue to rely on air and winter road system for travel and delivery of supplies. MFFN has become more reliant on air for the shipment of supplies and goods needed to sustain community life. Not proceeding with a CAR is likely to increase MFFN's dependence on air transportation, which is relatively expensive. Further constraints to opportunities for employment, business, and related economic and social development (e.g., Ogoki and Kenogami forests, mining initiatives and tourism) as a result of dependence on air transportation have been identified by the community (MFFN 2017).

Although the Project is for a CAR, with the primary purpose to service the community of MFFN, the need for a supply road to mining claims in the region has been previously identified by industry and government (i.e., provincial Infrastructure Plan). It is possible that a supply road would be constructed from a point along the CAR to the mining claims north of MFFN, including the Ring of Fire. Provincial interest is for one road to be built to serve both community access and industrial supply needs (i.e., multi-functional use); therefore, the proposed CAR may be used by private, commercial and industrial interests. If all-season ground access is not provided, the lack of affordable hauling may create a barrier to the development of existing and future industrial opportunities (e.g., full potential of resource is underutilized due to haul costs or lack of access impedes resource exploration). Since resource development in the region may provide employment, skills development and economic benefits, missed opportunities are likely if the CAR is not constructed.

Not proceeding with the Project does not address the problem of unreliable community access to MFFN and limits industrial opportunities and resulting benefits to MFFN and others in the region. The "do nothing" alternative highlights the benefits of proceeding with the Project, which include addressing the problem, expected improvement to travel safety, providing socio-economic benefit to the community, and is in keeping with the Infrastructure Plan (MOI 2018) and the Growth Plan (Ministry of Infrastructure and Ministry of Northern Development, Mines and Forestry 2011). Therefore, based on the government decisions and priority initiatives identified above, and the implications of not proceeding with the Project, the EA will consider and assess the construction and operation of a CAR.

6.3 Approach to Considering "Alternatives Methods"

The EA will consider the alternatives methods of carrying out the undertaking, which for the Project is the identification and assessment of alternative routes for a CAR. The EA will assess and evaluate the alternative routes identified in **Section 6.3.1**.

6.3.1 Identification of Alternative Methods

A study under the EAA was initiated by MFFN in March 2019 when the Notice of Commencement of the ToR for the Project was published. This notice included two broad corridor alternatives for the CAR, the West Corridor

Alternative and the East Corridor Alternative. Alternative 1 and Alternative 4 were referred to as the western routes located within the West Corridor Alternative, while Alternative 2 and Alternative 3 were the eastern routes located within the East Corridor Alternative. During early stages of the EA process, the four routes were shared through consultation as potential alternatives that would be reviewed to confirm the reasonable range of alternative methods for assessment and evaluation in the EA. Feedback received during winter and spring 2019 consultations confirmed that Alternative 2 and Alternative 3 are not considered to be reasonable alternatives for the Project based on the concerns raised by MFFN community members and Chief and Council. Specifically, MFFN signed a Band Council Resolution on July 31, 2019 to only consider the western alternative routes (Alternative 1 and Alternative 4) in the EA process because the eastern routes are only considered viable if the road is built as a dedicated CAR. Since the Project is for a multi-purpose CAR built to meet industrial use specifications, Alternative 2 and Alternative 3 shared during early ToR consultation are not considered reasonable alternative methods for the Project and will not be considered in the EA.

Additional information on the development and identification of alternative routes for the EA, including issues, concerns and decisions made that influenced what is considered a reasonable alternative for the Project, is provided in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Alternatives Development* (AECOM 2019). This document includes an overview of the historical evolution of the alternative methods, which occurred over more than ten years, starting with the Winter Road Alignment study in 2007 (Neegan Burnside Ltd. 2009) and progressing through the early stages of the EA process in 2019, and is provided as supporting information to the ToR.

The alternative methods to be assessed and evaluated in the EA are Alternative 1 and Alternative 4, as shown on **Figure 6-1.** Both alternatives start at Painter Lake Road and run north before turning eastward toward MFFN roughly following the west / north side of the Albany River. The routes are based generally on the proposed north-south corridor developed by Cliffs Natural Resources for an all-season access road from Painter Lake Road to the Ring of Fire (Cliffs 2013). The two alternative routes parallel, overlap and cross each other at multiple locations. The key distinguishing points of the two alternative routes are described below.

Alternative 1: ..... This alternative has a longer route length, avoids crossing the Ogoki Provincial Park, and the northern portion of the route is aligned along higher ground and sources of aggregate around an area of large mining claims before connecting east-west to MFFN.

Alternative 4: ..... This alternative has a more direct (i.e., shorter) route, crosses the Ogoki Provincial Park, and is aligned further east to avoid Anishinabek Knowledge values near the Albany River crossing before connecting east-west to MFFN.

Throughout the planning and design phase, route refinements to the alternative routes are anticipated to occur based on information that arises through field investigations and consultation activities. There is a potential that other viable alternative routes may arise during the EA or information becomes known that may suggest Alternative 1 and / or Alternative 4 are no longer considered reasonable alternative routes. In the event either of these cases occurs during preparation of the EA, consideration will be given to determine whether route refinements and / or alternative routes should be added or removed from the EA as appropriate.

Buffaloskin River
Gander River
Muswabik River
Wabassi River
Marten Falls 65
Albany River
Eabamet Lake
Gourlie Creek
Wabimeig Lake
Chard River
Dark River
ALBANY RIVER PROVINCIAL PARK
Ruby Creek
Makokibatan Lake
Dusey River
Dusey River
Ogoki River
Calbert Creek
Komushikoba River
OGOKI RIVER PROVINCIAL PARK (WATERWAY CLASS)
Ogoki Lake
Colpitts Creek
La Rose Creek
Little Current River
Britt Creek
Reckett Creek
PAINTER LAKE RD
LITTLE CURRENT RIVER PROVINCIAL PARK
Chaucer Creek
Papoose Creek
Ara Lake
Meta Lake
ANACONDA RD
Aroland First Nations
Abamasagi Lake
OGOKI RD
O'Sullivan Lake
Legarde River
Michel Creek
Hanover River
Esnagami Lake
Watistiguam River
Drowning River
Mundino River
Wilgar Creek
Johnson Creek
Singing River
Kenogami River
Cavell Creek
643
584
Atikasibi River

Key Map
Windsor Lake
Armstrong
Nakina
Lake Nipigon
Geraldton
Hornepayne
11
Manitouwadge
Kabinakagami Lake
Dog Lake
Lake Superior
17
Map Location

Legend

Route Label
- Alternative 1
- Alternative 4

General Features
- Highway
- Local Road
- Resource / Recreation Road
- MFFN Existing Winter Access Road
- Railway
- Provincial Park
- Woodlands
- Waterbody
- Wetlands
- Far North Boundary
- First Nation Reserve
- District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Alternative Routes

0 5 10 20 30
Kilometres
Datum: NAD 1983 CSRS UTM Zone 16N

Oct, 2019	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

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Figure 6-1

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7. Existing Environment and Potential Environmental Effects

7.1 Description of the Environment

The EAA requires a description of the environment that may be affected or reasonably expected to be affected, directly or indirectly, by the alternatives and the undertaking. This section provides a preliminary description of the existing environmental conditions that may be potentially affected by the Project. The description of the environment will address components of the environment that are included in the EAA definition, which includes a general description of the social, cultural, economic, built and natural environments.

7.1.1 Study Area

The description of the environment provided in **Section 7.1.4** is for the general area of the Project, which includes the area encompassing the alternative routes shown on **Figure 6-1**. However, the Code of Practice requires the study area for the EA be identified in the ToR (MECP 2019a). A study area is the area within which activities associated with an undertaking will occur and where potential environmental effects will be studied.

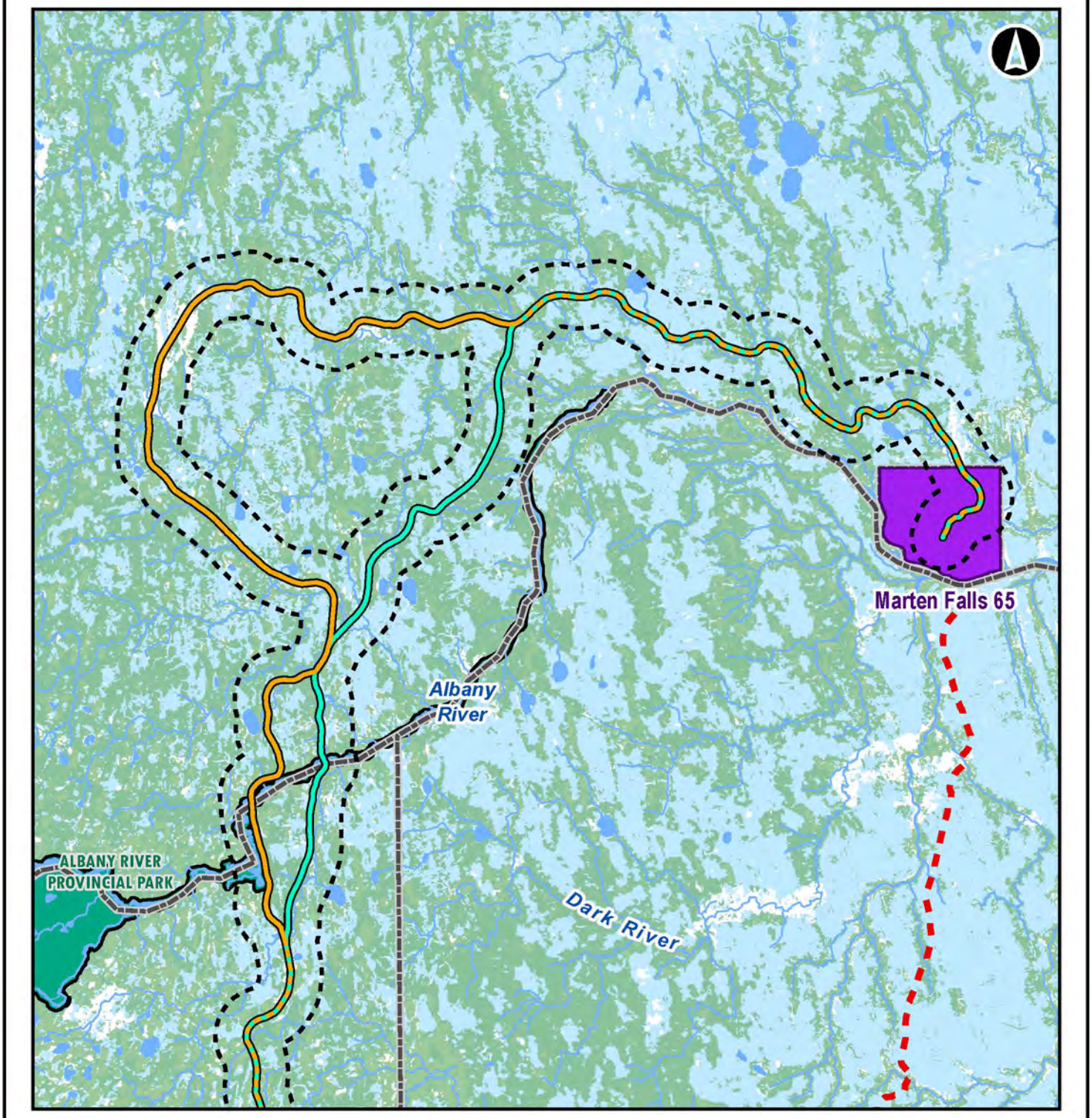
The preliminary study area identified for the EA is shown on **Figure 7-1**. The study area includes the area within 2.5 km of the centreline of each alternative route. The study area generally allows for the documentation of existing conditions and prediction of potential environmental effects for the Project. A 5 km wide study area also allows for route refinements during development of Project design (e.g., adjustment of the alignment to avoid features). The study area will be refined in the EA through the identification of discipline-specific local and regional study areas.

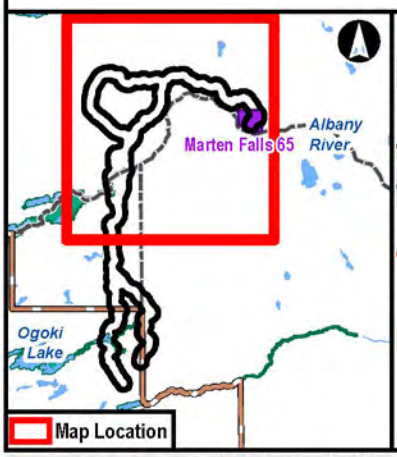
7.1.2 Environmental Features

The MECP's Code of Practice states that the description of the environment provided in a ToR is intended to be an overview of the existing conditions and address the features of the environment as defined in the EAA:

a) *"air, land or water;*
b) *plant and animal life, including human life;*
c) *the social, economic and cultural conditions that influence the life of humans or a community;*
d) *any building, structure, machine or other device or thing made by humans;*
e) *any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities; or,*
f) *any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario."*

The ToR provides a general description of the environment based on features that may be affected by the Project. Similar environmental features are grouped into environmental disciplines for characterization and assessment of effects. The ToR includes a description of each environmental discipline listed in **Table 7-1** based on readily available existing information and documented for the general vicinity of the Project. The information included in the ToR will be augmented by field investigations and input from government agencies, Indigenous communities, and other stakeholders. A more detailed description of the environment will be provided in the EA.





Legend

- Study Area
- **Route Label**
  - Alternative 1
  - Alternative 4
- **General Features**
  - Highway
  - Local Road
  - Resource / Recreation Road
  - MFFN Existing Winter Access Road
  - Railway
  - Provincial Park
  - Woodlands
  - Wetlands
  - Far North Boundary
  - First Nation Reserve
  - District Municipal Boundary

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Marten Falls First Nation
All Season Community Access

Study Area

0 2.5 5 10 15 20
Kilometres
Datum: GCS North American 1983 UTM Zone 16U (Calculated)

Data Sources:
MNRF, MMAH, NRCAN

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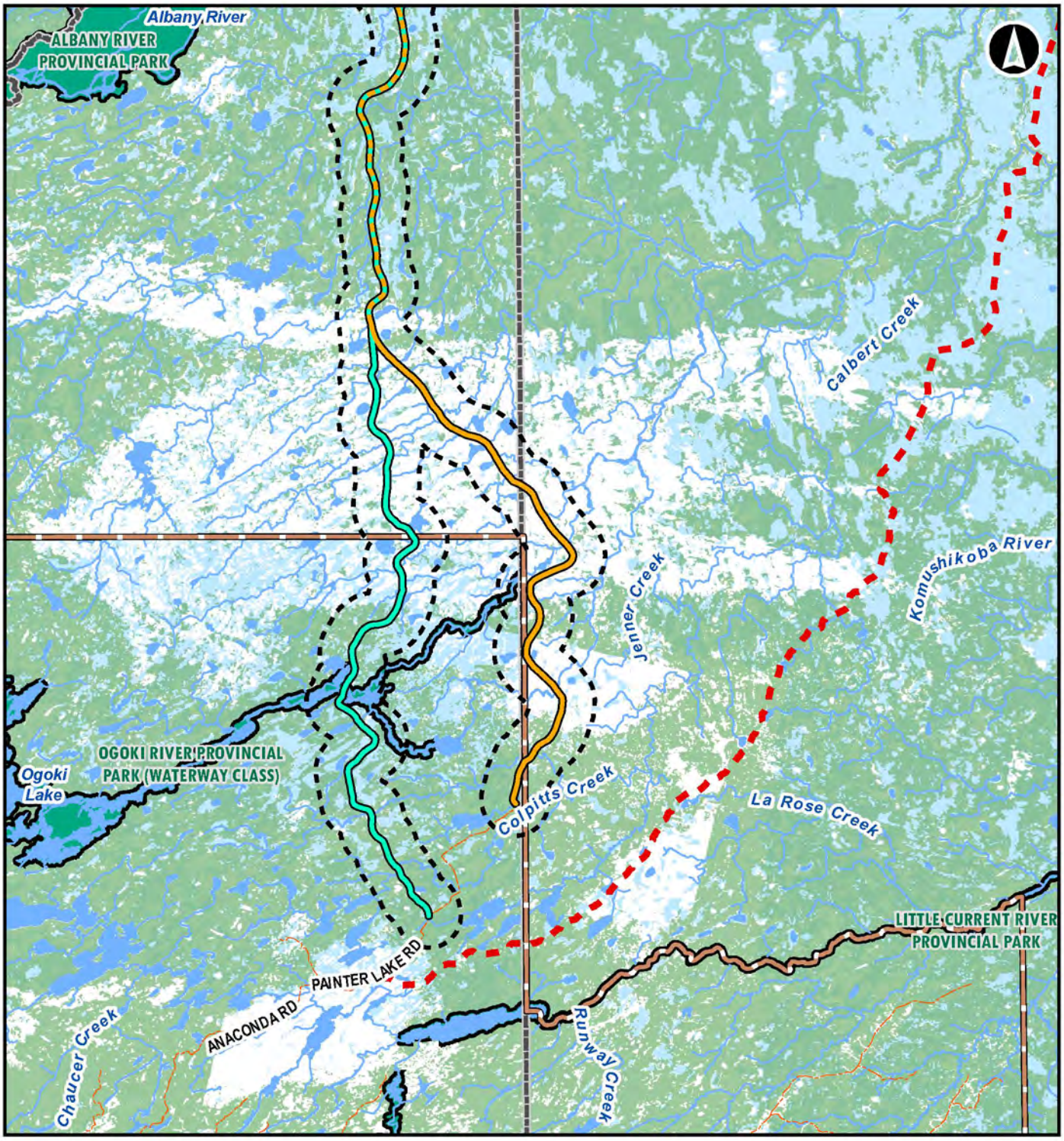
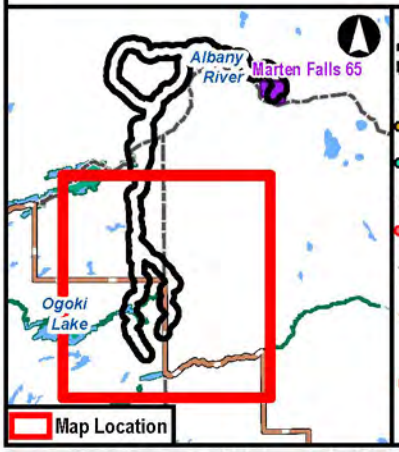
Figure 7-1A





Legend

- Study Area
- Route Label
  - Alternative 1
  - Alternative 4
- General Features
  - Highway
  - Local Road
  - Resource / Recreation Road
  - MFFN Existing Winter Access Road
- Railway
- Provincial Park
- Woodlands
- Wetlands
- Far North Boundary
- First Nation Reserve
- District Municipal Boundary

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Marten Falls First Nation
All Season Community Access

Study Area

0 2.5 5 10 15 20
Kilometres
Datum: GCS North American 1983 UTM Zone 16U (Calculated)

Data Sources:
MNRF, MMAH, NRCAN

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Figure 7-1B

Table 7-1: Environmental Disciplines to be Considered during the Environmental Assessment

Environment	Discipline	
Natural (Physical and Biophysical) Environment	▪ Atmospheric Environment ▪ Acoustic Environment ▪ Physiography, Geology, Terrain and Soils ▪ Surface Water ▪ Groundwater	▪ Vegetation ▪ Wildlife ▪ Fish and Fish Habitat ▪ Species at Risk
Indigenous Knowledge	▪ Indigenous Knowledge and Land Use	
Social, Economic and Built Environment	▪ Social ▪ Economy ▪ Land and Resource Use	▪ Recreation and Tourism ▪ Human Health ▪ Visual Aesthetics
Cultural Environment	▪ Cultural Heritage Resources[1]	

Note: 1. Cultural heritage resources include archaeological and built heritage sites, and cultural heritage landscapes.

7.1.3 Methods to Characterize the Environment during the Environmental Assessment

The existing environment that may be affected by the alternative routes will be described in greater detail in the EA. Additional information that is planned to be used to further describe the environment within the EA include, but are not limited to the following:

- Review of available data and information;
- Data collected through field investigations;
- High resolution imagery obtained from Light Detection and Ranging (LiDAR) data;
- Geographic Information System (GIS) data analysis;
- Modelling, where applicable;
- Input from government and other interested persons; and
- Indigenous Knowledge shared by Indigenous communities.

The EA will document the results of field investigations that are available at the time of preparing the report. Project-specific field investigations will be undertaken for input into the assessment and evaluation of effects of the alternative routes and to support other permits and approvals required for the Project (**Section 13**). The field investigations currently planned are summarized in **Section 7.1.4** but may change based on the results of ongoing consultation with agencies, Indigenous communities and other stakeholders, including the review of the ToR. Generally, the field investigations target the study area defined in Section 7.1.1

7.1.4 Description of the Existing Environment

The following sections provide a brief description of the existing environment within the study area based on readily available data. Information was sourced from:

- records published through secondary sources;
- previous studies;
- government agencies; and
- Indigenous Knowledge, where provided by Indigenous communities at the time of preparing the ToR.

The area of the Project spans the Big Trout Lake Ecoregion within the Ontario Shield Ecozone and the James Bay Ecoregion within the Hudson Bay Lowlands Ecozone. The Ontario Shield Ecozone is characterized largely by forest, followed by treed bogs and fens, open water, and other wetlands. There is an abundance of black spruce and fire

plays an important ecological role in the ecoregion. The Hudson Bay Lowlands Ecozone forms the core of the third largest wetland in the world. This area is characterized largely by treed bogs and fens, followed by forest, other wetlands, and open water. Given the abundance of wet organic substrates and a cool humid climate within the Hudson Bay Lowlands Ecozone, fire plays a less significant role in this area, compared to the Ontario Shield Ecozone.

Marten Falls is located in a northern temperature zone characterized by short warm summers and long cold winters. Air quality and noise levels are affected primarily by natural sources (such as wind, forest cover and occasional forest fires) and to a much lesser extent, by limited development in the general area.

The general area of the Project is dominated by wetlands (i.e., bogs, fens, swamps and marshes) of the Albany River watershed and several of its subwatersheds. Surface water moves generally in a north direction, towards James Bay. The Albany and Ogoki river systems have both been altered from their original state by hydroelectric development activity in the region between 1943 and 1950 respectively (MFFN 2017).

The fish community composition and use of these waterbodies will vary because of factors such as availability of suitable habitat (spawning, overwintering, rearing, and feeding) and connectivity to other waterbodies. Over 20 species of fish, primarily of cool and cold-water thermal regimes, are known to inhabit the waters in the area.

The area of the Project provides suitable habitat for a variety of small and large mammals, as well as various amphibians, reptiles, birds and insects that are found in the boreal forest. The area is characterized by i) open and treed wetlands dominated by species such as black spruce, mosses and shrubs and ii) upland terrestrial habitat comprised of mixed forests with species such as jack pine, white spruce, and several poplar species. These areas also host wildlife species of conservation concern.

Further details are provided in the following sections.

7.1.4.1 Atmospheric Environment

Marten Falls is located in a northern temperature zone characterized by short warm summers and long cold winters. The nearest Environment Canada weather station is in Geraldton, Ontario, approximately 200 km away. Climate Normals at this station (Climate ID No. 6042716) include data from 1981 to 2010. Daily average temperatures ranged from -1.4 degrees Celsius to -25.1 degrees Celsius during the winter, with average monthly precipitation ranging from 23.8 mm to 38.0 mm (Government of Canada 2018a). Average temperatures between 1967 and 2015 at the Geraldton, Ontario weather station were 15.2 degrees Celsius during summer and -16.2 degrees Celsius during winter. Average monthly precipitation in the winter was 38.9 mm and in the summer was 89 mm (Government of Canada 2018b).[3]

Existing air quality conditions are determined by both regional and local source influences. Regional air quality is affected mainly by a combination of long-range pollutant transport and meteorological conditions. With the exception of emissions related to point sources such as vehicles, wood or fuel burning furnaces, and diesel generators at MFFN, local air quality influences are similar to regional influences.

Limited information on local air quality is available to characterize the study area and surrounding region. Therefore, the Project will undertake an atmospheric environment field program to better understand the existing local and regional air quality. A one-year air quality monitoring program is planned that will measure the compounds most commonly associated with roadway emissions, including the following constituents:

- nitrogen oxides (NO_x);
- particulate matter (e.g., $PM_{2.5}$, PM_{10}, total suspended particulate);

3. Note that data between 1967 and 2015 is sourced from both the Geraldton and the Geraldton A weather stations.

- carbon monoxide (CO);
- sulphur dioxide (SO_2); and
- and total benzene, toluene, ethylbenzene, and xylene (BTX).

Provincial MECP air quality standards (Government of Ontario 2019d), Ontario Ambient Air Quality Criteria (MECP 2018) and Canadian Ambient Air Quality (CCME 2014) Standards provide acceptable values for air pollutants both federally and provincially based on health and other risk assessments. The measured air pollutant levels can be assessed using these values to determine potential existing air quality issues.

The proposed field investigation was developed to collect data that will allow for the assessment of effects to be conducted following guidance from MECP and the "Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects" (MTO 2012) document.

The greenhouse gas (GHG) emissions from the Project will be estimated, based on industry standards and other publicly-available information and compared to the provincial, national and industry profile GHG emissions. Desktop information regarding the extent that peatlands and other landcover types that are within the study area act as carbon sinks will also be compiled.

7.1.4.2 Acoustic Environment

Noise sources in the area of the Project are ambient, natural noises of wildlife present in the forest and vegetated areas that surround the Project. A majority of the lands are traditionally used for hunting, fishing, trapping and canoeing. Industrial and transportation noise sources are limited within the study area. There is no commercial forestry or large industrial activities within much of the area surrounding the Project. The exception would be that of the Ogoki and Kenogami forests that include active commercial forestry operations, which are located along the southern border of the study area and a considerable distance from MFFN. Current access to the area is limited and transportation activities likely have little influence on existing ambient sound levels.

The expected existing ambient sound levels are not anticipated to exceed the MECP sound level limit of 40 A-weighted decibels (dBA) for outdoor locations in rural areas (Government of Ontario 2013a). Based on this information, existing ambient sound levels of 30 to 40 dBA may occur in the area of the Project and are mainly due to wildlife and other natural sources (e.g., rustling vegetation).

Limited information is available to characterize noise levels within and surrounding the study area. Therefore, the Project will undertake a field program to better understand the existing local and regional ambient noise levels. Noise measurement and monitoring will be completed in general accordance with guidelines provided by the MECP including the methodology outlined in NPC 300 "*Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning*" (NPC 300), and internationally-recognized standards issued by the International Standards Organization (ISO).

The monitoring program is planned to include monitoring at locations considered to be representative of the different types of points of reception where human activity is expected to occur. 'Representative' monitoring sites will be selected to document ambient noise levels at existing or potential sensitive receptors in the vicinity of the alternative routes and will generally follow the definition of noise sensitive receptors in MECP's (formerly Ministry of the Environment, and Climate Change [MOECC]) "Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning NPC-300" (MOECC, 2013). Sensitive receptors may include occupied residences or areas identified by the community as culturally-significant sites that may be sensitive to noise disturbances, or other areas within the study Area, including vacant lots, that could accommodate the construction of sensitive land uses (such as permanent or temporary residences).

Monitoring will be conducted using sound level meters set to record 1-hour equivalent noise level (Leq) and noise level exceeding 90% of measurement period (L90). The sound level meters will record monitoring data over a period of 72 hours through unattended monitoring to document noise levels. Data will be screened to remove any abnormal noise events (e.g., birds or insects close to microphone) as well as noise data collected under unfavourable weather conditions (i.e., periods of precipitation and wind speeds exceeding 20 km/h). The daytime (7:00 to 19:00) and night-time (19:00 to 7:00) ambient noise levels will be calculated. During installation (and retrieval) of noise monitoring equipment, attended noise measurements will be taken to supplement the monitoring data.

7.1.4.3 Physiography, Geology, Terrain and Soils

The Project lies within the Hudson Bay Lowlands physiographic region, which is characterized by low lying, poorly drained terrain dominated by muskeg and bog. The thickness and distribution of unconsolidated (Quaternary) sediments are the result of extensive glacial activity which took place during the Great Ice Age (Pleistocene Epoch). This period was marked by the advance and retreat of massive, continental ice sheets. During the latter part of the Pleistocene (Late Wisconsinan Substage), the ice mass advanced, depositing till ground moraine. As the ice sheet stagnated, major sand and gravel deposits were laid down, including eskers and ice-contact deposits. Post-glacial erosional and depositional processes have been of relatively minor importance in modifying the physiography of the area (Ontario Geological Survey 1984). Glacial features such as eskers, moraines and drumlins deposits are common in the western areas of the Project.

Marten Falls is underlain by organic deposits (peat, muck and marl). MECP water well records near MFFN suggest that sand and gravel fluvial deposits range from 6 m to over 40 m in thickness. The surficial overburden geology across northern and eastern portions of the study area away from MFFN comprise mainly organic deposits (peat, muck and marl) with isolated occurrences of undifferentiated till. The till in the area is characterized as a matrix of sand to silty sand that is commonly high in clasts and low total matrix carbonate content. Instances of this till material also are identified within the southwest and southern portions of the study area.

A second, finer-grained undifferentiated till occurs along the western and southern portions of the study area. This till material is comprised of a matrix of silty clay to silt that is typically clast poor and high in matrix carbonate content. The till occurs as a discontinuous veneer atop the bedrock surface, with instances of exposed rock occurring frequently throughout the area.

In the southwestern portion of the study area, instances of glaciolacustrine deposits are noted; being representative of nearshore and beach deposits. Given their higher energy depositional processes, the deposits are coarser-grained, comprising of sand, gravelly sand and gravel.

Under the Canadian System of Soil Classification, where topsoil is present, Podzolic and Brunisolic soils are the dominant types within the area of the Project. Podzolic soils are acidic with a B horizon containing accumulations of amorphous materials composed of humified organic matter associated with aluminum and iron. They develop most commonly in sandy materials in areas of cold, humid climate under forest or shrub vegetation. Water moving downward through the relatively porous material leaches out basic elements (e.g., calcium), and acidic conditions develop. Soluble organic substances formed by decomposition of the forest litter attack soil minerals in surface horizons, and much of the iron and aluminum released combines with this organic material. Brunisolic soils include soils that do not quite meet the criteria of the other forested soil orders. Brunisolic soils can be viewed as a stage in an evolutionary sequence that begins with an unweathered parent material (Regosolic soils) and ends with development of a mature forested soil of the Podzolic or Luvisolic orders (Agriculture and Agri-Food Canada 1998).

Bedrock geology in the area of MFFN is comprised of Upper Ordovician aged shale, limestone, dolostone and / or siltstone of the Red Head Rapids Formation and Churchill River Group. Comparatively, the other portions of the study area are underlain by various bedrock types of Proterozoic and Archean age. Rock types within this area include mafic / ultramafic to intermediate metavolcanic rocks, metasedimentary rocks, foliated tonalilte, gneissic

tonalite, and massive granodiorite to granite. Mafic, ultramafic and related intrusive rocks (diabase dikes) of the Mackenzie swarm, Marathon swarm, Matachewan and Hearst swarms are also reported within the area (MNDM 2017a; MNDM 2017b).

Figure 7-2 presents potential aggregate sources in the study area.

Geotechnical engineering field work will include selective hand augering and peat probing to explore and confirm soil and rock stratigraphy, drilled boreholes and sampling for material testing at selected locations, visual assessment of major water crossing defined as crossing having a width of greater than 10 m, and site visits to potential bedrock quarry sites. The test hole drilling program will be mainly focused on investigating specific geological features that could be developed as potential borrow sources, and to verify geotechnical conditions in key areas, such as major water crossings. During site visits of potential bedrock quarry sites, the bedrock feature will be characterized with respect to rock classification, relative size and relief of the feature, and accessibility to the proposed road alignment. Samples of the bedrock will be obtained, and photographs of the feature will be taken in an effort to assess the suitability for quarry development.

7.1.4.4 Surface Water

The Project is located within the Hudson Bay Plains and Boreal Shield Ecozones, including areas of transition between the two (Natural Resources Canada 2019) and the James Bay drainage basin. Surface water moves generally in a north-easterly direction, towards James Bay.

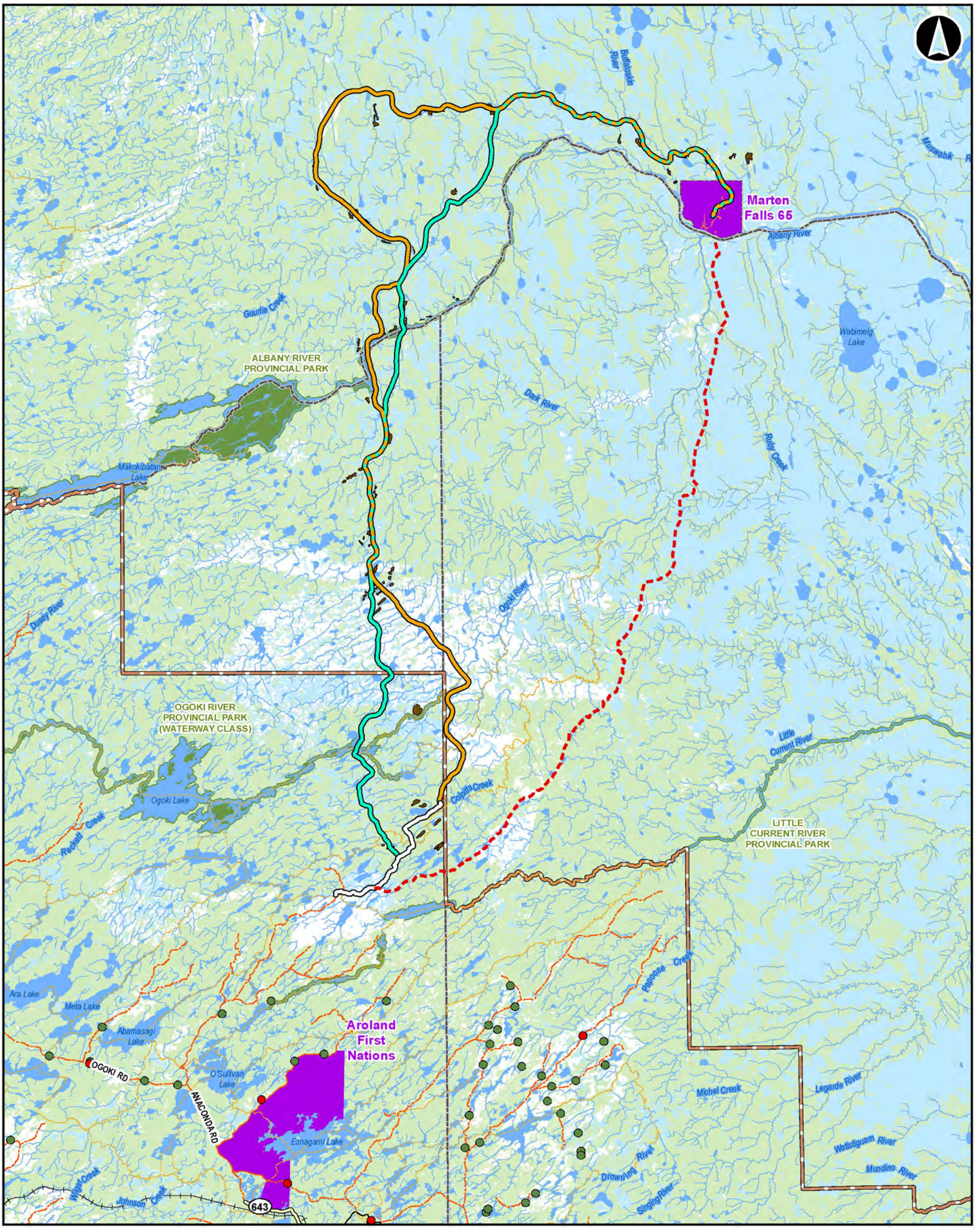
The Project lies within two main watersheds: the Upper Albany – Makokibatan and the Lower Ogoki. The primary watercourses within the respective watersheds are the Albany River and the Ogoki River. The confluence of these two rivers is located near MFFN. The Albany River is tied for the longest river in Ontario at 982 km long and ultimately discharges into James Bay. The Albany and Ogoki River systems have both been altered from their original state by hydroelectric development activity in the region (MFFN 2017). **Table 7-2** summarizes the estimated number of major (i.e., requiring a long-span bridge construction) and minor (i.e., may require short-span bridge or culvert) crossings. The location of crossings was identified through background review, helicopter reconnaissance and review of aerial imagery.

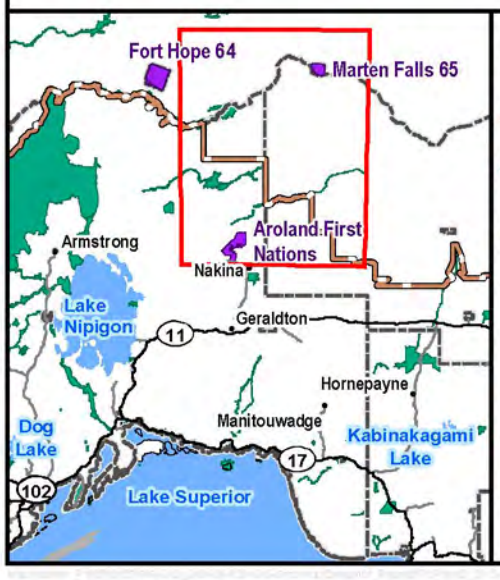
Table 7-2: Estimated Number of Culvert and Bridge Watercourse Crossings

Description	Alternative 1	Alternative 4
Major Crossings (i.e., long-span bridges)	3	3
Minor Crossings (i.e., short-span bridges and culverts)	43	44
Total Crossings	46	47

In addition to the Albany River and Ogoki River, numerous streams and rivers of various stream orders, large and small lakes, ponds and wetlands are prevalent in the area, notably Dusey River, Gourlie Creek, Wabassi River, Buffaloskin River and their tributaries (Natural Resources Canada 2019). The Ogoki River and Albany River are Provincial Park waterways, and sections of these rivers and shorelines occur within the study area.

The general area of the Project is dominated by wetlands (i.e., bogs, fens, swamps and marshes) of the Albany River watershed and several of its sub-watersheds. The Hudson Bay Lowlands Ecozone is northernmost ecozone in Ontario and forms the core of the third largest wetland in the world (Crins *et al.* 2009), where over 68% of its land cover consist of fens, bogs or wetlands. Comparatively, approximately 22% of the land cover in the Ontario Shield Ecozone consists of treed bogs and fens and wetlands (Watkins 2011). The wetlands within the area of the Project are not designated as provincially significant. Considering the remote landscape of the Project and abundance of wetland features, it is likely that the wetlands within the area of the Project have not been evaluated.





Legend

Route Alternatives
- Alternative 1
- Alternative 4

General Features
- Highway
- Collector Road
- Residential Road
- Resource Road
- Railway
- Trail
- MFFN Existing Winter Access Road
- Painter Lake Road
- Watercourse
- Indian Reserve
- Far North Boundary
- District Municipality
- Waterbody
- Provincial Park
- Woodlands
- Wetlands
- Potential Aggregate Sources *
- Existing Aggregate Pit (Active)
- Existing Aggregate Pit (Inactive)

Note:
*Aggregate sources used for the CAR will be a minimum of 100 metres from waterbodies.

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Marten Falls First Nation
All Season Community Access

Potential Aggregate Sources

0 5 10 20 30
Kilometres
Datum: NAD 1983 UTM Zone 16N

Data Sources:
Derived by KBM Resources Group n.d.
MNRF, MMAH, NRCAN, MLAS, KGS

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Figure 7-2

The field program will involve both aerial and ground-based survey approaches to characterize existing conditions at water body crossings within the study area. An aerial reconnaissance will be undertaken along the full extent of the study area to verify the location of mapped and unmapped water body crossings, and to further augment the existing environment information available through desktop analysis. At water body crossing locations (at approximately the centre-line of each corridor crossing), the water body type and coarse-level description of surface water and peatland features will be documented.

The ground-based field surveys will be used to obtain site-specific field data at a subset of water body crossings to verify or augment the results and assumptions from the desktop analysis. The site selection process will be based primarily on a 'scaled approach', with a plan to select a representative number of water body crossings under three different categories of watershed size and to get representation across the alternative routes.

Surface water field surveys will be completed along an approximate 200 m section of the selected water body (centered over the proposed crossing location). At each selected crossing, observed water body conditions will be documented to broadly define typical channel patterns and flow conditions, including bed and bank morphology, channel geometry and stability, channel substrate, streamflow, and riparian and/or shoreline vegetation. In addition, basic topographic channel surveys targeted at the proposed crossing may include collection of a few bed elevation shots at locations upstream and downstream of the crossing. The results of the basic topographic channel surveys will be used to generate coarse hydraulic calculations at the planned crossing structures. Basic water quality parameters (conductivity, pH, temperature, and dissolved oxygen) will be measured at all selected sites using a multi-parameter water quality meter (during the fish and fish habitat field program described in **Section 7.1.4.8**).

During the geotechnical field program, the depth of peat will be investigated at locations along each alternative route since a significant portion of alternative routes traverse organic terrain and will have a surficial layer of peat moss. During the vegetation field survey, discussed in **Section 7.1.4.6**, peatlands will be also examined, including peat humification and degree of surface or groundwater flow for distinction of fens and bogs.

Field crews will also document any opportunistic observations on substrate type, overburden, bedrock, and/or signs of upwelling that can be used to advance the desktop analyses for the groundwater and geology components. These observations will be supplemented by field surveys outlined in **Section 7.1.4.3**.

7.1.4.5 Groundwater

The exposed bedrock of the Canadian Shield, which extends across much of Central and Northern Ontario, typically is moderately to highly fractured within the upper 10 m to 20 m (Sykes *et al.* 2009), resulting in the bedrock commonly being considered an aquifer unit. Within the area of the Project, the pattern of fractures in the bedrock aquifer allows for the movement of groundwater; however, this secondary permeability generally decreases with depth (Sykes *et al.* 2009).

Within Marten Falls, sand and gravel fluvial deposits associated with the Albany River locally exceed 40 m in thickness (MECP Water Well Record #16003369) and are targeted for both domestic and public water supplies within the community. Groundwater resources within the upper bedrock, identified as limestone on local well records, also are targeted by public well supplies within the community.

Topographic lows, such as river valleys, will have local effects on the rate and direction of groundwater movement. Groundwater flow paths frequently bend into river valleys and isolated topographic depressions, such as the Albany River and Ogoki River, as well as numerous other higher order watercourses, water bodies (e.g., lakes, ponds), and deeper bedrock hollows and valleys within topographic lowlands. Given its remote location, groundwater use within the area of the Project is expected to be minimal.

Incidental observations during the surface water field program, that may supplement the desktop analysis of groundwater quantity or quality (e.g., signs of upwelling) will be recorded opportunistically (**Section 7.1.4.4**). Additionally, groundwater elevation will be recorded during the geotechnical drilling program (**Section 7.1.4.3**).

7.1.4.6 Vegetation

The Project spans Ecoregion 2W (Big Trout Lake Ecoregion) within the Ontario Shield Ecozone and Ecoregion 2E (James Bay Ecoregion) within the Hudson Bay Lowlands Ecozone.

The Ontario Shield Ecozone largely consists of conifer-dominated boreal forests (Crins *et al.* 2009). Ecoregion 2W is characterized largely by forest (63.6%), followed by treed bogs and fens (14.5%) open water (13%), other wetlands (7.5%) and the remaining 1.3% is classified as other (Watkins 2011). More specifically, within Ecoregion 2W, there is an abundance of black spruce (*Picea mariana*) on both upland and lowland sites. Black spruce is often associated with jack pine (*Pinus banksiana*) and white birch (*Betula papyrifera*) in upland sites. Mixed stands of black spruce, balsam fir (*Abies balsamea*) and poplar (*Populas* sp.) are typically present along the shores of lakes and rivers. In lowland areas, fens and bogs with mosses, shrubs and graminoids are predominant (Crins *et al.* 2009). It should also be noted that fire is an important force of natural change within Ecoregion 2W as large amount of forests in the ecoregion are considered recent burns (Watkins 2011).

The Hudson Bay Lowlands Ecozone is northernmost within Ontario and forms the core of the third largest wetland in the world (Crins *et al.* 2009). Ecoregion 2E is characterized largely by treed bogs and fens (43.3%), followed by forest (25.5%), other wetlands (25.3%), open water (5.6%) and the remaining 0.4% is classified as other (Watkins 2011). More specifically, Ecoregion 2E is comprised of stands of stunted black spruce and tamarack (*Larix laricina)* along with scattered fens and bogs. On well-drained soils and along the edges of streams and rivers, developed stands of coniferous and mixed wood forests are present (Crins *et al.* 2009). Given the abundance of wet organic substrates and a cool humid climate, forest fire has a less significant role in Ecoregion 2E compared to Ecoregion 2W (Crins *et al.* 2009).

Ontario's Ecological Land Classification is an integrated approach to describing the biological and physical parts of a landscape, classifying areas of similar climate, topology, soil and plant communities. Ecological Land Classification information in the Far North is far behind that available for southern portions of the province. To support the EA, desktop research will be supplemented by aerial and ground-based survey to characterize habitat and Ecological Land Classification. Preliminary locations for vegetation surveys will be selected based on a review of aerial imagery and PLC2000 landcover types. The plant community of each survey location will be classified to the ecosite level using the Ecosites of Ontario (Banton et al. 2009) protocols. A description of soil, plant species, relative abundance of plant species, and presence of invasive and Species at Risk (SAR) will be recorded for each survey plot. Plant surveys are conducted during the summer months. Results of the field investigations, combined with other data sources (e.g., MNRF 2019), will be used to describe and map the range of vegetation communities present in the study area. Detailed maps of the ecosites identified will be prepared and the variability of plant communities within and among ecosites will be described. Plant species lists (including vascular plants, lichens and byrophytes, where observed) will be provided. SAR will be identified and suitable habitat for these species will be extrapolated to include the entire study area.

7.1.4.7 Wildlife

The general area of the Project provides suitable habitat for a variety of small and large mammals, as well as various reptiles, birds and insects that are found in the boreal forest. As described in **Section 7.1.4.6**, the area is characterized by open and treed wetlands dominated by species such as black spruce, sphagnum, mosses and shrubs (MFFN 2017). Upland terrestrial vegetation communities are comprised of mixed forests with species such as jack pine, white spruce, white pine, and poplar species (MFFN 2017). The range of habitats within the study

area support the requirements for a wide range of wildlife species, such as black bear, moose, woodland caribou, wolf, wolverine, lynx, marten, fisher, muskrat, skunk, groundhog, snowshoe hare, otter, and fox. In addition, hundreds of migratory birds inhabit the Far North region. Herptile species known to occur in the area include eastern American toad, eastern garter snake, wood frog, red-sided garter snake, and leopard frog. The latter two species are considered regionally significant (MFFN 2017).

A field survey of wildlife and wildlife habitat is being conducted to supplement the existing information. The field surveys include:

- **Breeding Bird Point Surveys** at a variety of habitat types across the study area;
- **Marsh Bird Call Back Surveys** in suitable marsh habitats using protocols modified from Bird Studies Canada (2003) for marsh bird monitoring; and
- **Remote Wildlife Cameras** deployed within areas where wildlife concentration is predicted to occur (e.g., trails, cut lines, river banks, etc.). The cameras will be equipped to capture up to 10,000 images and will be deployed for approximately three months during the summer season. Images will be processed, and wildlife identified to species.

7.1.4.8 Fish and Fish Habitat

The general area of the Project includes a multitude of aquatic features throughout the landscape dominated by wetlands (i.e., bogs, fens, swamps and marshes) of the Albany River watershed and sub-watersheds.

Numerous streams and rivers, large and small lakes, ponds and wetlands that provide habitat for a variety of fish and wildlife are prevalent in the area of the Project, notably the Albany River, Ogoki River, Dusey River, Gourlie Creek, Wabassi River, Buffaloskin River and their tributaries (Natural Resources Canada 2019). Fish use of these waterbodies will vary as a result of factors such as availability of suitable habitat (spawning, overwintering, rearing, and feeding) and connectivity to other waterbodies.

Over 20 species of fish, primarily of cool and cold-water thermal regimes, are known to inhabit these waters and are part of, or support a commercial, recreational, or Aboriginal fishery and are therefore regulated by the *Fisheries Act*. Species including Northern Pike (*Esox Lucius*), Walleye (*Sander vitreus*), Lake Whitefish (*Coregonus clupeaformis*), Brook Trout (*Salvelinus fontinalis*), Yellow Perch (*Perca flavescens*), Cisco (*Coregonud artedi*) and Burbot (*Lota lota*) are target species of the communities inhabiting the region and by local and fly-in charter angling and hunting tourist outfitters. In addition to the species listed above, the following fish species, which are common and widespread throughout Ontario, have the potential to occur in the area of the Project where suitable habitat is present (Eakins 2018):

- Northern Redbelly Dace (*Chrosomus eos*);
- Finescale Dace (*Chrosomus neogaeus*);
- Lake Chub (*Couesiius plumbeus*);
- Common Shiner (*Luxilus cornutus*);
- Northern Pearl Dace (*Margariscus nachtriebi*);
- Emerald Shiner (*Notropis atherinoides*);
- Blacknose Shiner (*Notropis heterodon*);
- Spottail Shiner (*Notropis hudsonius*);
- Mimic Shiner (*Notropis volucellus*);
- Bluntnose Minnow (*Pimephales notatus*);
- Fathead Minnow (*Pimephales promelas*);
- Longnose Sucker (*Catostomus catostomus*).
- White Sucker (*Catostomus commersonii*);
- Silver Redhorse (*Moxostoma anisurum*);
- Shorthead Redhorse (*Moxostoma macrolepidotum*);
- Trout-perch (*Percopsis omiscomaycus*);
- Brook Stickleback (*Culaea inconstans*);
- Ninespine Stickleback (*Pungitius pungitius*);
- Mottled Sculpin (*Cottus bairdii*);
- Slimy Sculpin (*Cottus cognatus*);
- Iowa Darter (*Etheostoma exile*);
- Johnny Darter (*Etheostoma nigrum*);
- Logperch (*Percina caprodes*); and

The study area is large and contains a number of water features which require assessment. As a result of the broad scale, the field program will involve both an aerial and ground-based survey approach to characterize existing baseline conditions at water body crossings within the study area. The aerial and ground-based field surveys will be done in coordination with the collection of surface water information (**Section 7.1.4.4**).

The fish habitat assessment will involve the classification of instream habitat by distinct habitat units (i.e., areas of similar habitat type) and be modeled after the Ontario Stream Assessment Protocol (Stanfield 2007). Information describing the fish and aquatic communities (either based on fishing effort, habitat suitability for known or suspected SAR, or desktop information) and physical habitat parameters (including channel widths and depths, channel velocity, substrate, and instream cover). *In situ* physico-chemical parameters (e.g. pH and temperature) will be recorded at each station. Fish presence and relative abundance will be evaluated in the vicinity of the water body crossing locations using two sampling methods (backpack electrofisher and/or baited minnow traps).

The ground-based field surveys will be used to obtain site-specific field data at a subset of water body crossings (approximately 10% of the total number of mapped and unmapped waterbody crossings) to verify or augment the results and assumptions from the desktop analysis. The site selection process will be based primarily on a 'scaled approach', with a plan to select a representative number of water body crossings under three different categories of watershed size and to get representation across the alternative routes.

7.1.4.9 Species at Risk

Vegetation

A review of the Natural Heritage Information Centre *Make-a-Map: Natural Heritage Areas* (MNRF 2019) database resulted in the record of one rare plant, the Northern marsh violet (*Viola epipsila*), occurring within the Project study limits. There are no other terrestrial vegetation SAR within the Project study limits.

A description of soil, plant species, relative abundance of plant species, and presence of invasive and SAR will be recorded for each survey plot (**Section 7.1.4.6**); no specific field program targeting at-risk vegetation species is planned.

Wildlife

A preliminary review of background information suggests that several species listed as threatened, endangered or special concern under the provincial *Endangered Species Act* or the federal *Species at Risk Act, 2002* have the potential to occur in the area of the Project. These species include but are not limited to (MECP 2019b):

- Bald Eagle (*Haliaeetus leucocephalus*);
- Barn Swallow (*Hirundo rustica*);
- Black Tern (*Chlidonias niger*);
- Eastern Whip-poor-will (*Caprimulgus vociferous*);
- Peregrine Falcon (*Falco peregrinus*);
- Wolverine (*Gulo gulo*);
- Woodland Caribou (*Rangifer tarandus caribou*);
- Little Brown Myotis (*Myotis lucifugus*);
- Northern Long-eared Bat (*Myotis septentrionalis*);
- Canada Warbler (*Cardellina canadensis*);
- Chimney Swift (*Chaetura pelagica*);
- Common Nighthawk (*Chordeiles minor*);
- Olive-sided Flycatcher (*Contopus cooperi*);
- Short-eared Owl (*Asio flammeus*); and
- Yellow Rail (*Coturnicops noveboracensis*).

Woodland caribou occur extensively in peatland areas, such as black spruce bogs and treed fens, while generally avoiding upland areas throughout the year (Stuart-Smith et al. 1997). However, their habitat can vary in different landscapes depending on habitat availability (Ferguson and Elkie 2004). Telemetry data shows that in the Missisa and James Bay ranges (which comprise part of the study area) Woodland caribou were found to occur most frequently in

peatlands, followed by coniferous forest, and they avoided deciduous forest (Ferguson and Elkie 2004). The location of winter ranges may be quite variable between years (Ferguson and Elkie 2004). Determining the population size or density of a wide-ranging low-density animal such as woodland caribou is often challenging and likely to be inaccurate. Since 2009, several research studies led by independent contractors and the MNRF have investigated woodland caribou and their habitat in areas crossed by the Project. The MNRF attached radio collars to a large number of woodland caribou across northern Ontario which were tracked by satellite between 2009 and 2014, some of these individuals were found within the study area (April Mitchell, MNRF, pers. comm. 2019). Study results illustrated that individuals were nomadic and may occupy different areas from one year to another but show stronger fidelity to calving areas. Herd population estimates will be evaluated as part of the provincial EA.

Field surveys conducted in spring, for at-risk wildlife species and are focused on:

- **Bat Maternity Roost Monitoring**: A review of aerial imagery and PLC2000 landcover types conducted to identify potentially suitable habitat for SAR bats. Bat acoustic monitors deployed within the study area in suitable habitats to record the bat activity during the maternity roosting period to determine if SAR bats are present in potential maternity roost communities.
- **Bird Surveys**: Targeted surveys for bird SAR, such as Bank Swallow, Barn Swallow and Eastern Whip-poor-will will be completed. Suitable habitat is identified through a review of aerial imagery and aerial reconnaissance by helicopter. Detailed inspection of suitable habitat for Bank Swallow and Barn Swallow are conducted. Acoustic monitoring devices installed within suitable habitat for Eastern whip-poor-will.

The need for and scope of additional SAR wildlife surveys[4], including caribou, is being determined in consultation with MECP and MNRF. The results of field investigations for this Project will be documented in the EA.

Fish

The Project falls within the range of the Southern Hudson Bay-James Bay population of Lake Sturgeon (*Acipenser fulvescens*), and Lake Sturgeon is known to occur in the Albany River and its tributaries (Committee on the Status of Endangered Wildlife in Canada 2017). The Southern Hudson Bay-James Bay populations are designated as Special Concern under the provincial *Endangered Species Act* and holds no status under Schedule 1 of the federal *Species at Risk Act*. Therefore, despite differing designations and protection requirements of other populations in Ontario, the South Hudson Bay-James Bay populations of Lake Sturgeon are not afforded protection under these Acts.

Information on the distribution of at-risk fish species and their habitats will be based on readily available information; no field surveys are planned to target at-risk fish species.

7.1.4.10 Aboriginal and Treaty Rights

The Project is located within the James Bay Treaty - Treaty Number 9 (made in 1905 and1906) and Adhesions made in 1929 and 1930 areas as shown in **Figure 7-3**. Matawa Council, Shibogama Council and Mushkegowuk Council First Nations are included in the Treaty 9 area (Government of Canada 2008). MFFN is a member of the Matawa First Nations Management. Aboriginal and Treaty Rights are guaranteed under section 35 of the *Constitution Act*, which includes recognition of existing Aboriginal and Treaty Rights to hunt, trap, fish, gather and manage the lands for all First Nation, Inuit and Metis people of Canada. As part of these rights, the Government of Canada has the Duty to Consult Indigenous communities for this Project. The MECP has developed a list of communities to be consulted with, consistent with the Duty to Consult, and has provided MFFN with this information. **Table 7-3** provides brief community profiles for all Indigenous communities that MECP identified should be engaged as part of the EA process. MFFN is currently undertaking engagement with these communities (**Section 10**). The engagement will continue throughout the EA as per the interest expressed by each community.

4. Initial surveys for SAR were completed in 2018

Marten Falls 65
Adhesion to Treaty, No. 9, 1929-1930
Treaty No. 9, 1905-1906
Treaty No. 60, 1850
Aroland First Nations
Esnagami Lake
ALBANY RIVER PROVINCIAL PARK
OGOKI RIVER PROVINCIAL PARK (WATERWAY CLASS)
LITTLE CURRENT RIVER PROVINCIAL PARK
Ogoki Lake
Makokibatan Lake
Eabamet Lake
Abamasagi Lake
O'Sullivan Lake
Ara Lake
Meta Lake
Wabimeig Lake
Buffaloskin River
Wabassi River
Gander River
Muswabik River
Albany River
Gourlie Creek
Wapimeig Creek
Charo River
Dark River
Dusey River
Ruby Creek
Calbert Creek
Ogoki River
Jenner Creek
Komushikoba River
Colpitts Creek
La Rose Creek
Little Current River
Britt Creek
Reckett Creek
Brace Creek
Chaucer Creek
Papoose Creek
ANACONDA RD
OGOKI RD
Blob Creek
Wilgar Creek
Johnson Creek
Wababimiga River
Michel Creek
Legarde River
Drowning River
Watistiguam River
Mundino River
Singing River
Little Legarde River
Atikasibi River
Kenogami River
643
584

Key Map
Windsor Lake
Fort Hope 64
Marten Falls 65
Aroland First Nations
Nakina
Armstrong
Lake Nipigon
Geraldton
Hornepayne
Manitouwadge
Dog Lake
Kabinakagami Lake
Lake Superior
11
17
Map Location

Legend

Study Area

Route Label
- Alternative 1
- Alternative 4

General Features
- Highway
- Local Road
- Resource / Recreation Road
- MFFN Existing Winter Access Road
- Railway
- Provincial Park
- Waterbody
- Far North Boundary
- First Nation Reserve
- District Municipal Boundary

Treaty Boundaries
- Adhesion to Treaty, No. 9, 1929-1930
- Treaty No. 60, 1850
- Treaty No. 9, 1905-1906

Marten Falls First Nation
All Season Community Access Road

Treaty Boundaries

0 5 10 20 30
Kilometres
Datum: NAD 1983 CSRS UTM Zone 16N

Nov, 2019	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

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Figure 7-3

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Table 7-3: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Animbiigoo-Zaagi'igan Anishinaabek First Nation	Animbiigoo-Zaagi'igan Anishinaabek First Nation ("AZA") is signatory to the Robinson-Superior Treaty 1850 and is affiliated with the Nokiiwin Tribal Council and the Union of Ontario Indians. The AZA cultural affiliation is Ojibwa. AZA is comprised of one reserve, the Lake Nipigon Reserve (1269.9 ha), which was established in 2008. The Lake Nipigon Reserve is located 236 km southwest of MFFN along the southern shores of Partridge Lake, between Jellicoe and Geraldton. Three members live on the Lake Nipigon Reserve with the remaining approximately 500 members primarily living in other northern Ontario communities including Beardmore, Jellicoe, Geraldton, and Thunder Bay (ISC 2019). The First Nation has a custom electoral governance system with one Chief and four Councillors elected every 3 years. AZA's administrative office is located in Beardmore, Ontario (AZA 2019).
Aroland First Nation	Aroland First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. Aroland First Nation is comprised of an amalgamation of members with ties to Eabametoong, Marten Falls, Ginoogaming, Long Lake 58 and Fort William First Nations with cultural affiliations to Oji-Cree and Ojibway (Aroland First Nation 2019). Aroland Indian Settlement (79 ha) is the primary community for over half of the approximately 700 Aroland First Nation members (ISC 2019; Aroland First Nation 2019). The community is located 170 km southwest of Marten Falls First Nation, and 20 km west of Nakina on Hwy 643. Aroland First Nation has a custom electoral governance system with one Chief and seven Councillors elected every 2 years.
Attawapiskat First Nation	Attawapiskat First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and Nishnawbe Aski Nation. The Attawapiskat cultural affiliation is Swampy Cree. Attawapiskat is comprised of two reserves, Attawapiskat Indian Reserve 91a (235.8 ha) and Attawapiskat Indian Reserve 91 (27040.1 ha) (ISC 2019). The Attawapiskat reserves are located at the mouth of the Attawapiskat River on James Bay, 278 km northeast of MFFN. As of July 2019, 1,981 members are listed as living on Attawapiskat reserves, with the remaining 1,677 members living elsewhere (ISC 2019). Attawapiskat First Nation has a custom electoral governance system with one Chief, one Deputy Chief and 11 Councillors elected every 3 years.
Constance Lake First Nation	Constance Lake First nation is a signatory to Treaty 9 and is affiliated with Matawa First Nation Management and the Nishnawbe Aski Nation. The Constance Lake cultural affiliation is Cree and Ojibway. Constance Lake First Nation is comprised of two reserves, Constance Lake 92 Indian Reserve on the Kabinakagami River (3,110.5 ha) and English River 66 Indian Reserve on the Kenogami River (3,108 ha) (ISC 2019). Both of the Constance Lake reserves are located 238 km southeast of Marten Fall First Nation and are accessible by way of Highway 11. The main reserve, Constance Lake 92 Indian Reserve, serves as the main reserve with 871 members of the 1,761 members living on reserve as of July 2019 (ISC 2019). Constance Lake First Nation uses the Indian Act electoral governance system with one Chief and six Councillors elected every 2 years.
Eabametoong First Nation	Eabametoong First Nation is a signatory of Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. The Eabametoong cultural affiliation is Ojibway. Eabametoong First Nation is comprised of a single reserve, Fort Hope 64 (25,900.3 ha) (ISC 2019). Fort Hope 64 is located on the north shore of Eabamet Lake, 142 km west of MFFN. As of July 2019, approximately 1,500 members live at Fort Hope 64, with the remaining approximately 1,000 members living mostly in other parts of northern Ontario (ISC 2019). Eabametoong uses the Indian Act electoral governance system with one Chief and five Councillors elected every 2 years.
Fort Albany First Nation	Fort Albany First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and the Nishnawbe Aski Nation. The Fort Albany cultural affiliation is Mushkeowuk Cree. Fort Albany First Nation originated as a Hudson's Bay Company trading post, however during the 1950s due to religious differences, the reserve was divided into two communities (Fort Albany First Nation and Kashechewan First Nation) (Five Nations 2012). The Fort Albany 67 Indian Reserve (36,345.7 ha) is unique in that there are two First Nations residing on the land (Fort Albany First Nation and Kashechewan First Nation) (ISC 2019). Fort Albany 67 is located 300 km northeast of MFFN, with Fort Albany First Nation members residing on the south bank of the Albany River approximately 15 km upstream from James Bay (Five Nations 2012). The combined total population total of Fort Albany First Nation and Kashechewan First Nation is 5,162 members and is mutually referred to as 'Albany' in the Indigenous Services Canada First Nation Profile (ISC 2019). As of July 2019, 3,207 members of Fort Albany First Nation and Kashechewan First Nation reside on Fort Albany 67 (ISC 2019). Fort Albany First Nation and Kashechewan First Nation have a combined custom electoral governance system with one Chief, one Deputy Chief and seven Councillors elected every 3 years.

Table 7-3: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Ginoogaming First Nation	Ginoogaming First Nation, formerly known as Long Lake 77, is a signatory of Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. The Ginoogaming cultural affiliation is Ojibway and Oji-Cree. Ginoogaming is comprised of one reserve, Ginoogaming (6,978 ha), located on the northern shore of Long Lake and 210 km southwest of MFFN (ISC 2019). As of July 2019, 220 members reside in Ginoogaming with 770 Ginoogaming members residing elsewhere (ISC 2019). There have been three land claims by Ginoogaming First Nation, with one settled in 2002 and the other two currently registered with the Government of Canada. The remaining land claims allege breaches of fiduciary obligations with respect to the construction of Tote Road through their reserve and unfulfilled Treaty Land Entitlement with regards to Treaty 9. Ginoogaming First Nation uses the Indian Act electoral governance system with one Chief and six Councillors elected every 2 years.
Kasabonika Lake First Nation	Kasabonika Lake First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. The Kasabonika Lake cultural affiliation is Oji-Cree. Kasabonika Lake is comprised of one reserve, Kasabonika Lake Indian Reserve (10,806.5 ha) located along the Ashweig River and is 277 km northwest of MFFN (ISC 2019). As of July 2019, there are 1,097 members residing on Kasabonika Lake reserve with less than the 100 remaining members living elsewhere (ISC 2019). Kasabonika Lake has a custom electoral governance system with one Chief, one Deputy Chief, one Head Councillor and five Councillors elected every 2 years.
Kashechewan First Nation	Kashechewan First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and Nishnawbe Aski Nation. The Kashechewan cultural affiliation is Cree, and prior to 1950 Kashechewan was a part of the Fort Albany First Nation (Five Nations 2012). In the 1950s, Kashechewan First Nation was formed out of members from the Fort Albany First Nation that held an Anglican religious view rather than the Roman Catholic affiliation associated with Fort Albany First Nation (Five Nations 2012). With the split of Fort Albany First Nation, the single Fort Albany 67 reserve (36,345.7 ha) is shared by both Fort Albany First Nation and Kashechewan First Nation and is located 300 km northeast of MFFN (ISC 2019). The combined total population total of Kashechewan First Nation and Fort Albany First Nation is 5,162 members and is mutually referred to as 'Albany' in the Indigenous Services Canada First Nation Profile (ISC 2019). As of July 2019, 3,207 members of Kashechewan First Nation and Fort Albany First Nation reside on Fort Albany 67 (ISC 2019). Kashechewan First Nation and Fort Albany First Nation have a combined custom electoral governance system with one Chief, one Deputy Chief and 7 Councillors elected every 3 years.
Kingfisher Lake First Nation	Kingfisher Lake First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. The Kingfisher Lake cultural affiliation is Oji-Cree. Kingfisher Lake is comprised of three reserves: Kingfisher 2A (5,444.7 ha), Kingfisher 3A (921.9 ha), and Kingfisher Lake 1 (596 ha) (ISC 2019). The Kingfisher reserves are located approximately 306 km northwest of MFFN. 557 of the 621 total membership reside on reserve (ISC 2019). Kingfisher Lake First Nation has a custom electoral governance system with one Chief, one Deputy Chief, one Head Councillor and two Councillors elected every 2 years.
Kitchenuhmaykoosib Inninuwug First Nation	Kitchenuhmaykoosib Inninuwug First Nation is signatory to Treaty 9 and is affiliated with the Independent First Nations Alliance. The Kitchenuhmaykoosib cultural affiliation is Oji-Cree specifically, Anishininiimowin, Severn Cree and Northern Ojibway. The First Nation is comprised of a single reserve, Kitchenuhmaykoosib Aaki 84 (29,937.6 ha), located 361 km northwest of MFFN (ISC 2019). As of July 2019, there are 1,167 residing on Kitchenuhmaykoosib Aaki, with another approximately 550 members residing in other communities (ISC 2019). Kitchenuhmaykoosib has a custom electoral governance system for one Chief, one Deputy Chief, one Head Councillor and six Councillors to be elected.
Long Lake 58 First Nation	Long Lake 58 First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management and the Nishnawbe Aski Nation. The Long Lake 58 cultural affiliation is Ojibwa and Oji-Cree. Lake 58 is comprised of a single reserve, Long Lake 58 (232.3 ha) located on the northern shore of Long Lake and 207 km southwest of MFFN (ISC 2019). As of July 2019, the population of Long Lake 58 is 1,616 with 528 members residing on Long Lake 58 (ISC 2019). Long Lake 58 First Nation uses the Indian Act electoral governance system with one Chief and 12 Councillors elected every 2 years.

Table 7-3: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
MNO Greenstone Métis Council	The Métis Nation of Ontario (MNO) was established in 1993 to represent communities that are a part of the Métis Nation (MNO 2019). Today there are over 20,000 registered Métis citizens and approximately 30 Chartered Community Councils across Ontario that represent Métis citizens at the local level. The MNO has a provincial governing body that is elected every 4 years. The MNO hosts an Annual General Assembly where regional and provincial Métis leaders are required to report back to Métis citizens yearly between elections. The MNO also maintains a charitable foundation, the Métis Nation of Ontario Cultural Commission, which promotes and supports Métis culture and heritage and an economic development arm, the Métis Nation of Ontario Development Corporation (MNO 2019). Through the MNO, Ontario Métis have established a governance structure that represents the Métis citizens and rights-bearing Métis communities at the local, regional and provincial levels. The Greenstone Métis Council forms a part of this governance structure as a local level council based out of Geraldton. Geraldton is located approximately 230 km southwest of MFFN.
Neskantaga First Nation	Neskantaga First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. The Neskantaga cultural affiliation is Ojibway and Oji-Cree. The Neskantaga Indian Reserve (831.5 ha) is Neskantaga's only reserve, located on Attawapiskat Lake 157 km northwest of MFFN (ISC 2019). 348 of the 483 members of Neskantaga reside on Neskantaga reserve (ISC 2019). Neskantaga First Nation has a custom electoral system with one Chief and four Councillors elected every 2 years.
Nibinamik First Nation	Nibinamik First Nation, known as the Summer Beaver, is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. The Nibinamik cultural affiliation is Ojibwe. Nibinamik First Nation resides on the recently recognized reserve of the Summer Beaver Settlement which is located on Nibinamik Lake, 215 km northwest of MFFN (ISC 2019). As of July 2019, there are 62 Nibinamik members residing on the Summer Beaver Settlement, with approximately 500 members living elsewhere (ISC 2019). Nibinamik has a custom electoral governance system with one Chief, one Head Councillor and three Councillors elected every 2 years.
Red Sky Métis Independent Nation	Red Sky Métis Independent Nation (RSMIN) is comprised of descendants of the 84 Metis who were beneficiaries and annuitants under the Robinson-Superior Treaty 1850. As of August 2014, RSMIN is recognized as a non-status Nation (RSMIN 2019). The administrative office for RSMIN is located in Thunder Bay approximately 435 km southwest of MFFN. There are approximately 8,000 members with an elected Chief (RSMIN 2019).
Wapekeka First Nation	Wapekeka First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. The Wapekeka cultural affiliation is Oji-Cree. The First Nation is comprised of two reserves: Wapekeka 1 (3,605 ha) and Wapekeka 2 (2,026.5 ha). The reserves are located approximately 350 km northwest of MFFN (ISC 2019). As of July 2019, nearly all members (483 of the 496), reside on Wapekeka reserve land (ISC 2019). Wapekeka has a custom electoral system for one Chief and five Councillors to be elected.
Wawakapewin First Nation	Wawakapewin First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. The Wawakapewin cultural affiliation is Oji-Cree. The First Nation is comprised of a single reserve, self-named Wawakapewin (5,221 ha), which is located 300 km northwest of MFFN (ISC 2019). Approximately half of the 74 members reside on Wawakapewin as of July 2019 (ISC 2019). Wawakapewin First Nation has a custom electoral governance system with one Chief and two Councillors elected every 3 years.
Webequie First Nation	Webequie First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management and Nishnawbe Aski Nation. The Webequie cultural affiliation is Ojibwe. The First Nation is comprised of one self-named reserve (34,279 ha) that is located on the northern peninsula of Eastwood Island on Winisk Lake and 178 km northwest of MFFN (ISC 2019). Approximately one-third of the 933 members reside on the Webequie reserve as of July 2019 (ISC 2019). Webequie First Nation has a custom electoral system with one Chief, one Head Councillor and five Councillors elected every 2 years.

Table 7-3: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Weenusk First Nation	Weenusk First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and Nishnawbe Aski Nation. The Weenusk cultural affiliation is Cree in the n-dialect. Anishininiimowin and Ojibwemowin are also spoken. Weenusk used to live in the community of Winisk near the mouth of the Winisk River, but after a flood occurred the community moved to Peawanuck. Peawanuck is located 30 km up river from Winisk located near the confluence of the Winisk and Shamattawa Rivers. Weenusk First Nation is comprised of the single Winisk 90 reserve (5,310 ha) and the Winisk Indian Settlement, both are located approximately 375 km north of MFFN (ISC 2019). As of July 2019, there were less than 20 members living on Winisk 90, with the majority of the approximately 600 members living elsewhere (ISC 2019). Weenusk has a custom electoral governance system with one Chief and three Councillors elected every 2 years.
Wunnumin Lake First Nation	Wunnumin Lake First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. The Wunnumin cultural affiliation is Oji-Cree. The First Nation is comprised of two reserves, Wunnumin 1 (5,855.1 ha) and Wunnumin 2 (3,794.4 ha), both are located 270 km northwest of MFFN (ISC 2019). As of July 2019, 577 of the 712 members reside on the Wunnumin reserves (ISC 2019). The First Nation has a custom electoral system with one Chief, one Head Councillor and five Councillors elected every 2 years.

Reserve lands were granted to Indigenous communities in the area of the Project under Treaty 9 (Government of Canada 2008). There is one First Nation Reserve area that will be transected by the Project. The reserve belongs to MFFN. Reserve lands of neighbouring Indigenous communities are located beyond the area of the Project.

Contrary to the Crown, the Matawa First Nations note:

> *"[t]he Cree and Ojibway firmly believed that they signed treaties that afforded them protection and assistance from a benevolent king as well as a land sharing and resource sharing arrangement. The First Nations assert that they never gave up their land or their right to govern themselves. Matawa leaders assert that the act of entering treaty represented recognition of their nationhood. They state that they agreed to oral promises when they signed their treaties, many of which do not find expression in the Treaty text. This treaty understanding is passed down through the Elders in the oral transmission and tradition (Matawa First Nations Management 2019)."*

Ontario land claims consider land claims related to Indigenous communities' rights to land and to the use of land. Claims can consider size and location of reserves or improper use of reserve lands by government (Government of Ontario 2019a). Currently, no land claims with the government of Ontario are occurring within the area of the Project (Government of Ontario 2019b).

MFFN has initiated a Community Based Land Use Plan (CBLUP) with the MNRF (MFFN and MNR 2013) under the *Far North Act* (Government of Ontario 2014b). The *Far North Act* is the legislative foundation of land use planning for an Indigenous community's defined area of interest in the Far North of Ontario. Far North land use planning is about working with Indigenous communities to identify where development can occur and where land is dedicated to protection in the Far North, which covers 42% of Ontario's land mass (Government of Ontario 2012). Other communities that have undertaken CBLUP, which may include the area of the Project, are Eabametoong (Taashikaywin CBLUP), Constance Lake First Nation and Webequie First Nation (Government of Ontario 2014b). Aroland First Nation and MFFN have undertaken work together to collect Anishinabek Knowledge within the territory they share. CBLUPs incorporate traditional territory where Indigenous communities undertake activities and practices related to their Indigenous and Treaty Rights.

7.1.4.11 Indigenous Knowledge and Land Use

MFFN and other Matawa First Nation communities share traditional lands in the area of the Project and over a vast territory in northern Ontario. The Project falls mostly within the traditional territory of MFFN and shared territory with Aroland First Nation in the southern end of the Project. “[MFFN’s] traditional territory extends from the Current River and Ogoki Lake in the south, Makokibaton Lake in the west, Jasper Lake and Muketei Rivers to the north and the Albany Forks to the east” (MFFN 2014). The traditional territory has been used by Indigenous people for trapping, hunting, trade and socializing preceding European contact (MFFN 2014).

Common land use activities include resource harvesting that are protected under Aboriginal and Treaty Rights under section 35 of the *Constitution Act*. Common harvesting activities undertaken by Indigenous communities in the area of the Project include: hunting, fishing, trapping and gathering. These activities may take place throughout the year and are not bound by the provincial harvest seasons and regulations. Ecologically important area such as moose calving areas or fish spawning areas are important to traditional land and resource use due their role in producing the harvested resources. These harvested resources are also used for cultural practices.

Transportation pathways and features may be used to support traditional use of the land. Trails and paths within the area of the Project may be used to access hunting, trapping, fishing and gathering areas by Indigenous community members within and beyond the area of the Project. Trails may be accessed on foot, using all-terrain vehicles, trucks or snowmobiles depending on the physical characteristics of the trail and season. In addition, waterways are used as linear access features to travel between harvest areas and other communities. The Albany River is an important waterway due to its frequent use by MFFN and other communities.

Specific sites such as cabins and camps may also be used to contribute to resource harvesting. These features are likely connected to communities by transportation features. Camps and cabins may provide locations important for resource harvesting or travel throughout and beyond the traditional territory. For example, trappers will often have a trapping cabin used for servicing their trapline.

Cultural activities and practices may occur at specific sites or independent of a specific location. The traditional use of the land and socio-community characteristics of the Indigenous communities, including MFFN, facilitates cultural practices in the area of the Project. Cultural practices that are not associated with a specific site are practices that can be undertaken anywhere with other members of the community and facilitate community well-being and cultural strength. These cultural practices may include crafting, language, and food consumption.

Communities identifying traditional territory within the area of the Project, including MFFN, may have known and unknown cultural sites. Cultural sites include land uses such as ceremonial, grave, sacred, gathering and worship areas. Linear features such as trails and waterways are used by Indigenous peoples to access cultural sites within and beyond the area of the Project.

Cultural activities, in this case, refers to cultural events that may occur in the community during specific periods. Some of these cultural activities may be associated with specific sites. Within the MFFN community, a community feast and a pow-wow are held annually (MFFN 2014). These activities are important to the health and well-being of individuals and communities having cultural and spiritual significance. Cultural activities may also interact closely with traditional harvesting including large hunting or fishing events. The social value of these events is important to the sense of community within many Indigenous communities.

Indigenous landscape features such as Place Names, Boundary Markers and Orientation Points contribute to the orientation of Indigenous peoples on the land. Natural Boundary markers such as rivers or mountains indicated to Indigenous peoples which territory they were passing through (Manuel 2019).

MFFN will also work with communities to collect Indigenous Knowledge to incorporate into the EA information regarding traditional land and resource use and cultural practices (**Section 7.1.4.11**). As part of the Indigenous

Knowledge and traditional land and resource use data collection, there will also be questions posed that seek to gain information on historical species observations (presence / location). MFFN respects the significance of Indigenous Knowledge and will utilize the following principles for the Project-specific Indigenous Knowledge Studies:

- Knowledge Holders will be identified by the community to participate in the studies;
- Consultation and Indigenous Knowledge protocols will be defined prior to commencing studies and utilizing Indigenous Knowledge;
- A collaborative approach will be used that follows the customs and culture of each Indigenous community;
- Traditional channels of authority and levels of approval within each member community will be respected;
- Indigenous Knowledge workshops and interviews will be facilitated at sites within the Traditional Territory of each Indigenous community;
- Engagement and communication with Knowledge Holders through workshops and/or interviews will be respectful; and
- Indigenous communities will own and control their Indigenous Knowledge information.

MFFN will collaborate with each Indigenous community to develop the Indigenous Knowledge collection methodology. MFFN supports each interested Indigenous community conducting their own Indigenous Knowledge Study or utilizing Project consultants to assist them in this undertaking. It is anticipated that the Project-specific Indigenous Knowledge Studies will be governed by Indigenous Knowledge Sharing Agreements and could involve the following tasks:

- Literature review (i.e., discussion on existing data, etc.);
- Confirmation of the Indigenous Knowledge Study Area;
- Establishing Indigenous Knowledge categories (e.g., Animal Harvest, Spiritual/Sacred, Habitation, Travel, etc.);
- Indigenous Knowledge gathering workshops and/or one-on-one interviews;
- Validation session; and
- Report preparation including Indigenous Knowledge baseline information, Indigenous Knowledge impact assessment, and proposed mitigation.

7.1.4.12 Socio-Economic and Built Environment

The socio-economic assessment will consider six subcomponents including socio-community (social), economy, land and resource use, recreation and tourism, human health and visual aesthetics. Primary data collection programs will support all components of the socio-economic assessment.

Social

The closest populated areas to the Project are the Indigenous communities of MFFN and Aroland First Nation. The Marten Falls Ogoki Post settlement is located in the study area and is inhabited by members of MFFN. MFFN has a population of 794 registered band members with roughly half (325) of community members. Additional community members (469) live in urban centres such Thunder Bay and urban centres in Greenstone (e.g., Geraldton). The population is steadily increasing, which is anticipated to continue in the future (MFFN 2014). Languages within the community include English and Ojibway. The designated service centre for the community is Greenstone (MFFN 2014).

MFFN is also a member of the Matawa First Nations Management Inc., a regional tribal council consisting of nine Ojibway and Cree First Nations communities in the Nishnawbe Aski Territory of Northern Ontario. Nishnawbe Aski

Nation, the Political Territorial Organization provides political, social and economic support for all First Nation communities in the Treaty #9 geographic area (MFFN n.d.).

Matawa First Nations Management, which includes Aroland First Nation, Constance Lake First Nation, Eabametoong First Nation, Ginoogaming First Nation, Long Lake #58 First Nation, MFFN, Neskantaga First Nation, Nibinamik First Nation and Webequie First Nation, provides advisory and /or program services to member First Nations when requested.

MFFN is governed by a Chief and up to seven councillors with elections held once every two years (MFFN 2014). Under the *Indian Act*, MFFN has the power to establish by-laws governing health, traffic and other areas. Federal statutes apply on reserve land while provincial statutes may apply if there is no existing by-law (MFFN 2014).

Marten Falls has approximately 65 houses (Statistics Canada 2017a). Most housing is classified as band housing with approximately two-thirds of housing defined as suitable (Statistics Canada 2017a). Housing is predominantly in two subdivisions. One is older along the west shoreline of the Albany River. The second is a newer subdivision built parallel to the older subdivision (MFFN 2014).

Marten Falls has an airport 5 km from the community, which is maintained by the MTO. The only scheduled all-season access to the community is a three times per week air service from an airport operated by Zam Air Service from Nakina, Ontario and, by a three times per week air service from Thunder Bay by North Star Air. Both airlines offer passenger and freight services. Seasonal access is also provided by the winter road (MFFN 2014). Electricity is provided to Marten Falls through Ontario Hydro Remote Services (MFFN 2014). Heating primarily occurs through wood burning for homes and oil furnaces for commercial properties. Despite having a water treatment plant, water and sewer infrastructure, a boil advisory is currently in place as the water treatment plant undergoes service (MFFN 2017). The community has a landfill 3.5 km north of the community where residents can deposit their waste (MFFN 2014). Bell Canada provides telephone service while K-Net provides limited broadband internet services. Television is available through satellite. News to the community is provided by Wawatay bi-weekly and the Chronicle Journal daily (MFFN 2014).

To the south of the proposed Project is Aroland First Nation. The community has approximately 110 houses with 86% classified as suitable (Statistics Canada 2017b). Aroland First Nation is a road accessible community connected to Highway 643. The road is available in all seasons. Community infrastructure in the Aroland First Nation community includes electricity (Ontario Hydro), water, sewage, and solid waste disposal (MNRF disposal site). Communication services include phone and television service provided by Bell; the Chronicle Journal newspaper, and radio provided by the Canadian Broadcasting Corporation. Transportation services in the community include a bus and taxi service. Bus service is provided by the First Nation (Matawa First Nations Management, n.d.).

Economy

Economic development in the area of the Project is undertaken predominantly by MFFN in partnerships with adjacent First Nations and industry. When requested, Matawa Economic Development Advisory Services will assist member First Nations to promote and foster sustainable economic development through the delivery of quality information products, capacity-building initiatives, and collaborative working projects (Matawa First Nations Management 2019). The closest Indigenous communities to the Project are MFFN and Aroland First Nation. These communities are likely to have the most economic interest in the Project. The Municipality of Greenstone is also likely to have economic interest in the Project due to its position as the primary service centre for these communities and its population of MFFN community members.

The primary economic activities in the region include mining, forestry and resource-based tourism. Mining exploration and development is expanding. The Agoke Development Corporation includes MFFN, Eabametoong and Aroland and was formed to manage the Ogoke Forest Management Unit. The Agoke Development Corporation Limited has a partnership with Nakina Lumber Incorporated – the Agoke Lumber Limited Partnership. This

Partnership and other Matawa communities have pursued the forestry industry, although the forestry industry in this region has been economically limited due to the downturn in the industry (MFFN 2014). A prohibitive factor to large development projects such as mining and forestry is transportation costs and infrastructure access. The lack of electricity and a reliable transportation network increase costs undermining the feasibility of enterprises.

Economic opportunity is limited within the MFFN. The unemployment rate is high at 18.8% with a low labour participation rate of 50% (Statistics Canada 2017a). Median income is also low at $14,944, which is well below the provincial average (Statistics Canada 2017a). Within the MFFN community there are a number of small private businesses including a convenience store, a grocery store, a fuel supply business and a lodging business. Resource based tourism operations are also operated by community members. The cost of living in the community is high due to the lack of access resulting in high costs for electricity and goods due to the transportation costs of fuel and goods.

Currently, small businesses operate within Aroland including a gas bar, convenience store, taxi company and tourist outfitters (Matawa First Nations Management n.d.). Aroland First Nation has similar labour market conditions to MFFN with low labour participation and high unemployment (Statistics Canada 2017b). Similar to MFFN, economic opportunity is limited in Aroland. The median income of $13,920 is low relative to the province (Statistics Canada 2017b). Aroland First Nation's primary employment sectors include primary industries, retail, administration, education, health care, recreation, accommodation and food services (Statistics Canada 2017b).

Greenstone has a more diversified economy than MFFN with a greater variety of people employed in different sectors (Municipality of Greenstone 2015). Greenstone has an unemployment rate of 10.6% with a labour force participation rate of 57.4%**.** The unemployment is 3.2% higher than the provincial averages while the labour force participation is 7.3% lower than the provincial average (Statistics Canada 2017c). Forestry, tourism and mining are key components of the Greenstone economy with Long Lake Logging and Premier Gold as major private sector employers (Municipality of Greenstone 2015).

Land and Resource Use

The area of the Project has a remote wilderness character, with most land used for resource harvesting and tourism. Major economic activities near the Project include forestry and mining exploration. A majority of the Project is expected to occur on lands regulated under the *Far North Act, 2010*. The *Far North Act* is the legislative foundation of land use planning in the Far North of Ontario (Government of Ontario 2014b). Far North land use planning is a joint planning process with the Ontario Government and Indigenous communities to identify where development can occur and where land is dedicated to protection in the Far North, which covers 42% of Ontario's land mass (Government of Ontario 2012). The purpose of the Act is to provide for CBLUP in the Far North of Ontario. The Project is expected to occur entirely in the area that will be covered by the MFFN CBLUP that has not yet been finalized.

A small portion of the Project to the south is located on Crown land designated as General Use Area. The Crown land under this designation is subject to Crown Land Use Policy Report G2697: Geraldton Area. This policy provides direction for the management of lands within General Use Area designation, permits, road development and maintenance (MNRF 2005).

The Albany River Provincial Park is located to the west of MFFN, along the Albany River and subject to Crown Land Use Policy Report P2657: Albany River Provincial Park (MNRF 2006). The Ogoki River Provincial Park is located to the southwest of MFFN. The Little Current River Provincial Park is located to the south of the existing winter access road. The Park is along the Little Current River and Percy Lake, which the winter access road was moved from as the Park was developed (MFFN 2017). Provincial parks are regulated under the *Provincial Parks and Conservation Reserve Act, 2006*, which provides the framework for the creation, removal and alteration of provincial parks (Government of Ontario 2014a). The Albany River Provincial Park is a waterway class park with

important fish harvesting and wilderness canoeing operations. MFFN, Eabametoong First Nation and Mishkeegogamang First Nation have traditional interest in this Park for transportation, recreation and harvesting (Golder Associates Ltd. 2018a). While these communities may have traditional interests in the Park, their interest may not overlap with the Project due to the area the Park covers extending far west of the Project. The Ontario Parks Planning Management Policies (1992 Update) aims to protect the natural, cultural and recreational values for which provincial parks are regulated (Golder Associates Ltd. 2018a).

Industries such as mining, aggregate production and forestry are important to this Project and the overall land use in northern Ontario. The region has a high degree of mining interests related to the Ring of Fire chromite deposits as well as other mining claims. Both alternatives overlap a high number of mining claims belonging to multiple mining companies. Currently, no all-season ground access exists to these claims or claims of interest north of the community. Aggregate resources are available near both alternatives, and towards the southern portion of the study area. Aggregate resource development is required for road projects as it is required for construction. Two Forest Management Units may overlap the Project: Ogoki Forest and Kenogami Forest. Forest Management Units are a geographic planning area setting boundaries for wood harvesting under a Sustainable Forest Licence (Government of Ontario 2013b).

Currently, a winter road is constructed annually to provide access to the community and to bring in goods such as heavy equipment, supplies and construction materials. The road is available from January to March if conditions are favourable (MFFN 2014).

Recreation and Tourism

Resource harvesting is a common practice for Indigenous and non-Indigenous peoples in the region. Common resource harvesting practices in northern Ontario include fishing, gathering hunting and trapping. Ontario regulates these activities under the *Fish and Wildlife Conservation Act,* 1997. The Act outlines restrictions on hunting and fishing, presents licensing and safety requirements and defines permitted methods. However, this provincial legislation does not affect Indigenous rights regarding these activities considering the existing Aboriginal and Treaty Rights of the Indigenous peoples of Canada are recognized and affirmed in section 35 of the *Constitution Act, 1982*. Access for these activities is available through boat launches and float planes access. Recreational fishing and hunting are popular activities in northern Ontario, drawing in tourists and local harvesters. Common target species for locals and tourists include moose, deer, black bear, pike, walleye, bass, trout and muskie (Golder Associates Ltd. 2018b).

Additional non-consumptive tourism also occurs in the region including hiking, canoeing and snowmobiling. These activities rely on waterways and trails. Formal Ontario Federation of Snowmobile Club snowmobile trails are not within the area of the Project but snowmobiling still likely takes place within the region (Ontario Federation of Snowmobile Clubs 2019). The Project likely transects a variety of trails and waterways used for recreation and tourism in the region. The Albany River Provincial Park is also identified as used for recreation activities in the region (Golder Associates Ltd. 2018a).

The Project occurs within Ministry of Heritage, Sport, Tourism, and Culture Industries (MHSTCI) Tourism Region 13c where $108 million was spent in 2013 on pleasure tourism (MTCS 2017). Tourism in the region is generally resource based with outfitting as the primary tourism activity with 661,000 tourists identifying participating in an outdoor activity as the main purpose of their trip (MTCS 2017). Most of these tourists come from within Ontario. Outfitting involves hunting, fishing or canoeing in remote locations with or without a guide. These tourist activities rely on their remote setting and wilderness setting to attract clients. The Albany River is an important tourism feature in the region with canoeing, hunting and fishing opportunities available through guided outfitting services (KBM Resources Group 2014; Golder Associates Ltd. 2018a). Approximately ten tourism operators have been identified as potentially having overlapping operating areas within 2.5 km of the centreline of each alternative route.

Human Health

Marten Falls is policed by the Nishnawbe-Aski Police Service. Tactical and emergency response are managed jointly with the Ontario Provincial Police. Provincial court services are operated within the community regularly. Legal representation is provided by Nishnawbe-Aski Nation legal services. The MNRF provides forest fire protection services starting 16 km outside of MFFN. No fire trucks are present within the community.

Health Canada funds the Muskeg Thunder Clinic, located in Ogoki Post, which operates 5 days per week. Health staff provide nursing services, health promotion and community health programs. Emergency medical services are provided in Greenstone with medivac aircraft utilized for transportation. Specialized medical services are provided in Thunder Bay at the Thunder Bay Regional Health Centre. Community health programs focus on mental health, addiction, prenatal and maternal health. Matawa First Nations Management, Nishnawbe-Aski Nation and the Ontario government provide family support, prevention and intervention programs within the community. Child welfare and family services programs are provided based out of Aroland First Nation with one person being employed by the MFFN community, but not based in the community.

Within Aroland, health services include the Aroland Health Centre and Tikanangan Child and Family Services Centre. Emergency services in the community include the Aroland First Nation Fire Department. Emergency medical services are provided by the Township of Nakina and, if unavailable, the Township of Geraldton. Aroland First Nation has a Crisis Team Co-ordinator who provides support to communities, families and individuals; referral services; family violence prevention; and access to ongoing healing programs.

The diet in the region relies on traditional subsistence harvesting with limited access to modern foods (Gamble 2017). The high cost of living and transportation likely contributes to this as goods are expensive and in short supply relative to communities with road access.

Visual Aesthetics

The remote wilderness aesthetics are important components of the visual environment in the area of the Project as related to the tourism industry, and residents of the local communities. Visual aesthetics of the Project region are largely influenced by natural processes such as wildfires, and limited human influences such as the existing local communities and winter roads.

Socio-economic Data Collection Methods

The following describes socio-economic data collection activities to further document the baseline condition, support the Project effects assessment work and route selection decisions for all criteria and indicators included in the socio-economy and land use assessments (**Appendix A**).

Data will be obtained from a variety of existing sources as further detailed in **Appendix A** including, but will not be limited to:

- Statistics Canada Community profiles;
- First Nation government information;
- Spatial Data;
- Municipal reports and plans;
- Provincial reports and plans;
- Non-Government Organization and academic reports;
- Community land use planning; and
- Regional industry sector reports.

Are review of available desktop information will be completed to identify information gaps and inform data collection for the Project. This will allow for more focused questioning targeted at specific data gaps and relevant items for each community. Desktop information will also be reviewed following the data collection for the Project to reaffirm and expand upon any new insights gained.

The purpose of data collection for the Project is to confirm and update data obtained from existing information sources, and to obtain additional information on the socio-economic and land use activities undertaken within the potentially affected communities and area of the Project. Data collection will be focused on the socio-economic criteria and indicators included in **Appendix A**. Interviews with relevant key contacts will be a key form of primary data collection. In some cases, it may be desirable to undertake focus-groups sessions. Interviews are expected to be undertaken with representatives of Indigenous communities, municipal governments, and land users. Where possible, in-person interviews will be conducted, otherwise representatives will be interviewed by phone. When applicable, interviews with vulnerable persons will also be conducted in a manner that is consistent with a Gender Based Analysis Plus approach. Interviews will be guided by a survey instrument (e.g. interview guide, survey, questionnaire) to ensure that consistent input is requested. Within Indigenous communities, the MFFN will attempt to interview members of Chief and Council, elders and youth.

Interviews (either in-person or by phone) will be undertaken with tourism operators, recreation club leaders, industry groups and/or other land users where stakeholders are willing. A request to complete a written questionnaire may be requested if an interview is not possible with the identified representative.

To support the interviews, relevant background information will be provided including mapping and an option to keep all information shared during the interview confidential. An opportunity for the interview subject to ask questions regarding the Project will also be provided.

The Socio-economic Assessment will integrate information from the Indigenous Knowledge primary data collection program to inform general components of the human environment whenever relevant. As an example, the total removal of current and traditional harvesting land would be considered to assess changes to a community's diet and well-being. The Socio-economic Assessment will only consider information from the Indigenous Knowledge program which is to become publicly available such as summaries and general commentary. The Socio-economic Assessment will not reference sensitive material, which is not fitting for the public forum, such as the location of important cultural sites.

7.1.4.13 Cultural Heritage Resources

Cultural heritage resources include archaeological and built heritage sites, and cultural heritage landscapes. Existing cultural heritage resources will be identified and described within the EA.

The Project is located in the Ontario Shield and Hudson Bay Lowlands Ecozones, covering Ecoregions 2W and 2E, which are comprised of upland boreal forest and lowland forest and extensive lowlands, respectively. The tertiary watershed systems in the area include the Albany-Makokibatan, Lower Ogoki, Little Current and Upper Albany-Muswabik, which would have provided important historical travel routes. Distance to modern or ancient water sources is one of the most important determinants of past human settlement patterns, along with drainage, glacial geomorphology and the general topographic variability of the area.

While no other archaeological assessments are known to have been completed within the current study area, some archaeological assessment has been undertaken in the broader region. Previous Stage 1 archaeological assessments have been completed in and near the western edge of the Project for pits and quarries proposed by mining industry. Previous archaeological surveys along the Albany River (Julig 1982) have demonstrated the rich archaeological record of the region, including several thousand years of Anishnaabe occupation. The area has been noted to have been occupied for thousands of years, including 20th century mining exploration in the region.

There are four registered archaeological sites within 50 km of the Project (**Figure 7-4**), including the Marten (Martin) Falls House (EjIp-1), which is found on the southern bank of the Albany River, approximately 12km east of the westernmost proposed route, two sites of unknown cultural affiliation and site type (Baxter site (Eilr-1) and Twin Point site (Eilr-2)), and one pre-contact indigenous camp (Feldbruegge site [Eglk-1]).

The Albany River was one of the first interior waterways west of James Bay to be explored by Europeans, beginning with the French between 1657 and 1751. During this time, they established interior posts which included The Marten Falls House, Henley House, and Gloucester House which are in proximity to the Study Area.

A Stage 1 archaeological assessment to identify areas of archaeological potential within the study area will be undertaken. The assessment will document the archaeological, land use history and existing conditions within the study area through a review of recent and historical maps; previous archaeological assessments in proximity to the study area; the MHSTCI Archaeological Sites Database for a listing of registered archaeological sites; and will also consider Indigenous Knowledge and related Indigenous land use information from both the pre- and post-contact periods to determine areas of archaeological potential. This information will be used to support recommendations regarding cultural heritage values or interests as well as assessment and mitigation strategies.

Should results of the Stage 1 archaeological assessment confirm archaeological potential within the study area, a Stage 2 archaeological assessment will be undertaken prior to construction for areas that are identified as part of the final Project footprint. Areas that cannot be visually determined to be permanently wet, and are not sloped, will be subject to Stage 2 test pit survey using the alternative strategies for special survey conditions in northern Ontario and on Canadian Shield terrain, as per Section 2.1.5 of the Standards and Guidelines for Consultant Archaeologists (MTCS 2011). Site selection will be completed through consideration of a number of factors, including but not limited to:

- desktop mapping exercises, including detailed stream ordering and removal of physical landscape features of low archaeological potential (i.e., bog, wetlands);
- proximity to historic water sources or other areas identified as having archeological potential (based on the results of the Stage 1 archaeological assessment);
- professional judgement by a licensed archaeologist;
- incorporation of available Indigenous Knowledge;
- consultation with MHSTCI; and
- aerial reconnaissance via helicopter.

The Stage 2 archaeological assessment will be conducted to meet the requirements of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011). The results of the Stage 2 archeological assessment will inform the need for further archaeological investigation where effects to identified archaeological resources cannot be avoided through detailed design.

In addition to archaeological resources, which focus on specific localities and material remains of past occupation, there are also Cultural Landscapes that are of strong cultural heritage value. A Cultural Landscape is geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including Indigenous communities. The landscape may include features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association (Government of Ontario 2014c). The Cultural Landscapes within the study area will be identified and characterized following the process set out in the MHSTCI document *Heritage Resources in the Land-use Planning Process; Info Sheet #2, Cultural Heritage Landscapes* (MTCS 2005). Since the Landscapes to be addressed are largely Associative (i.e., they do not consist of formal built structures or “neighbourhoods”), the key information sources will be Indigenous Knowledge and discussions with knowledgeable community members.

Wabassi River
Marten Falls 65
Albany River
Gloucester House
Marten Falls House
Dark River
Henley House
Baxter
Washi Lake
Twin Point
Ogoki River
Feldbruegge
Marten Falls Winter Road
Painter Lake Road

James Bay
ONTARIO
Lake Nipigon
Lake Superior

Legend

- Marten Falls First Nation
- Phase 1 Study Area - Western Routes
- Phase 1 Route Alternatives - Western Routes
- Existing Road
- Archaeological Site

Marten Falls First Nation Community Access Road

Registered Archaeological Sites

0 5 10 20
Kilometers

Oct 03, 2019	1:380,000 * when printed 11"x17"	Datum: NAD 1983 UTM Zone 16N Source: Data Sources Image: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
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AECOM

Figure: 7- 4

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7.2 Potential Environmental Effects

A preliminary identification of potential environmental effects associated with the undertaking during the construction and operations phases is provided in **Table 7-4.** As part of the EA, the potential environmental effects will be evaluated using applicable effects assessment criteria developed during the EA that will be based on standards, guidelines, objectives or other accepted ecological thresholds. As part of the assessment, consideration will be given to confirming whether environmental effects of the undertaking could combine with effects of other past, present, and reasonably foreseeable projects (cumulative effects).

Table 7-4: Preliminary Identification of Potential Environmental Effects

Environment	Discipline	Potential Effect
Natural Environment	*Atmospheric Environment*	▪ Changes to air quality ▪ Change in GHGs
	Acoustic Environment	▪ Increase in noise levels at sensitive receptors ▪ Increase in vibration at sensitive receptors
	Physiography, Geology, Terrain and Soils	▪ Changes to topography and ground stability ▪ Changes to soil quality ▪ Changes to soil quantity
	Surface Water	▪ Changes to surface water quality ▪ Changes to surface water quantity and flow
	Groundwater	▪ Changes to groundwater quality ▪ Changes to groundwater quantity and flow
	Vegetation	▪ Loss and alteration of vegetation communities, including wetlands ▪ Changes to species diversity
	Wildlife	▪ Loss and alteration of wildlife habitat (availability, use, connectivity) ▪ Change in wildlife population (abundance and displacement)
	Fish and Fish Habitat	▪ Loss and alternation of fish habitat (riparian, instream) ▪ Change in fish population (injury and mortality)
	Species at Risk	▪ Refer to potential effects identified for wildlife and wildlife habitat, and fish and fish habitat
Indigenous Knowledge	*Indigenous and Treaty Rights*	▪ Change to reserve lands ▪ Change in ability to access land and resources used for traditional purposes ▪ Changes to subsistence resource and activities including hunting, fishing, gathering and trapping
	Traditional Use of Land and Resources	▪ Change to cabins or camps and other resource use sites ▪ Changes to Indigenous landscape features ▪ Changes to the environmental conditions effecting traditional land and resource use ▪ Compatibility with land use planning
	Cultural Sites and Practices	▪ Change to cultural sites including ceremonial, grave, sacred, gathering and worship areas ▪ Change to access to cultural sites
Social, Economic and Built Environment	*Social*	▪ Change in population and demographics ▪ Change in availability and use of public services and infrastructure ▪ Changes to housing ▪ Changes to community well-being ▪ Changes to cultural activities and sites
	Economy	▪ Change in employment and income ▪ Change to the regional economy ▪ Change to government finances ▪ Change to industrial opportunities

Table 7-4: Preliminary Identification of Potential Environmental Effects

Environment	Discipline	Potential Effect
	Land and Resource Use	▪ Changes to provincial parks and protected area lands ▪ Changes to existing industrial uses
	Recreation and Tourism	▪ Changes to recreational and commercial lands used for trapping, hunting, fishing and other activities
	Human Health	▪ Changes in air quality, noise levels and water quality ▪ Changes to public health and safety ▪ Changes to diet ▪ Changes to access to health and emergency facilities and care
	Visual Aesthetics	▪ Alteration of existing landscape and visual character of the area (i.e., scenic values and viewpoints)
Cultural Environment	*Cultural Heritage Resources*	▪ Damage to, or the loss of, archaeological or other heritage sites

The potential environmental effects identified below are based on the environmental features that may be affected by the proposed undertaking. This list is preliminary and will be further developed during the EA. The EA will also recommend impact management measures to avoid, eliminate or minimize potential environmental effects.

The potential effect of the environment (i.e., climate change) on the undertaking will be addressed through a climate change risk assessment of the preferred route, based on the principles of the Engineers' Canada Public Infrastructure Engineering Vulnerability Committee protocol and ISO 31000. Current conditions and future conditions will feed into a climate change risk assessment of the preferred route. Indigenous Knowledge compiled through the Project will be used to guide and inform the climate change risk assessment.

7.2.1 Atmospheric Environment

Construction and operation of the CAR has the potential to affect local air quality. Effects to the atmospheric environment from construction would be temporary and result from emissions of combustion products such as nitrogen oxides and carbon monoxide, and suspended particulate from the operation of machinery and equipment. Emissions from construction would be highly localized to the area of work during the specific time-frames planned for each section of road development.

Following construction, the operation of the CAR would also contribute changes in the local air quality from the likely increase in vehicular traffic volume (i.e., all-season availability compared to current use of winter road only) and likely reduction in air traffic volume as a result of the all-season road access. Vehicular exhaust emissions consist primarily of nitrogen oxides, carbon monoxide, sulphur dioxides, suspended particulates, and volatile organic compounds, as well as GHG emissions. The regeneration of suspended particulates from vehicle movement along the gravel roadway would also contribute to local air quality. In general, effects of vehicular traffic emissions tend to be localized to approximately 500 m on either side of a roadway.

In the EA, dispersion modelling for the construction and operation of the alternative routes will be performed using the US EPA's AERMOD (version 16216r). Multiple modeling scenarios will be run to characterize the potential impacts from the development. Model results will be considered in conjunction with the monitoring results (monitoring planned is described in **Section 7.1.4.1**) to evaluate air quality. The 90th percentile of background concentrations will be combined with the modelling concentrations and compared against the standards under Ontario Regulation 419/05 (O. Reg. 419/05).

7.2.2 Acoustic Environment

Project construction activities, including equipment and machinery use, have the potential to cause temporary noise and vibration effects at sensitive receptors. These effects are not anticipated to be long-term due to the temporary nature of construction activities. However, once constructed, the CAR will provide a route for the transportation of people and supplies, and potentially industrial, forestry and mining traffic as well. Therefore, the CAR will be designed to accommodate a range of heavy and light vehicle types. These types of vehicles do not typically generate significant vibration levels, and it is expected that the CAR has a low potential for producing vibration effects. Given the rural nature of the area surrounding the Project, it is expected that ambient sound levels will be low and that traffic along the CAR has the potential to cause a perceptible change in the acoustic environment at nearby sensitive receptors. Potential noise effects of the alternative routes will be assessed quantitatively a noise prediction model in general accordance with the “Environmental Guide for Noise” (MTO 2006), the “Guidance for Evaluating Human Health Impacts in Environmental Assessment: *NOISE”* (Health Canada 2017), and the “Environmental Noise Guideline – Stationary and Transportation Sources- Approval and Planning” (MOECC 2013).

7.2.3 Physiography, Geology, Terrain and Soils

Potential effects of road construction include changes to topography due to cut and fill for grading, blasting of bedrock and removal of overburden needed for the CAR, construction access roads and structure foundations. Aggregate is likely to be sourced locally, which will create pits and quarries (depressions where materials have been extracted) in the area of the Project. Changes to topography as a result of the Project may cause indirect effects, such as changes to surface water drainage and sub-catchment areas.

Blasting may result in areas of slope instability. Where unstable rock structures are encountered, design modifications (e.g., minor refinements to the route) may be implemented to minimize potential effects from erosion, settlement, slope instability, foundation failure or rock fall hazards that could occur as a result of construction.

Changes in soil quality and quantity may occur during construction due to increased potential for erosion, sedimentation, mixing and compaction resulting from vegetation clearing, excavation, use of heavy equipment and stockpiling of cleared materials. Changes in soil quality may also occur due to accidental release of contaminants during construction from the use of equipment and machinery (e.g., use of chemicals, explosives and fuel, equipment washing) and from vehicles during operation of the CAR (e.g., leaks and spills from road users). Maintenance activities during operations of a roadway do not typically involve the use, storage or handling of large quantities of potential contaminants other than equipment fuels and / or lubricants.

7.2.4 Surface Water

Construction and operation of the Project will require permanent infrastructure crossings of watercourses along the CAR and temporary crossings along construction access roads. Watercourse crossings may include bridges, culverts, fords, corduroy, swamp mats, ice and snow crossings, which may result in changes to surface water quality and quantity. Equalization culverts will also be installed at locations where it is determined that spring-melt or storm runoff needs to pass from one side of the CAR to the other.

It is expected that effects to surface water would be primarily related to sediment and erosion, and potential introduction of contaminants from accidental releases. Changes to surface water quality and quantity can cause indirect effects to other environmental components (e.g., fish and fish habitat, wetlands).

Activities during construction, such as vegetation clearing, grading, excavation, equipment and machinery use, and stockpiling of materials may result in sedimentation into nearby waterbodies due to the creation of exposed and unstable soils. Erosion into surface water may result in changes to concentrations of sediment, baseflows and

water temperatures. These activities may also affect surface water quality through the introduction of contaminants from blasting activities and equipment used during construction, and from maintenance activities (e.g., salt and sand application) and accidental releases from vehicles during the operation of the CAR.

Placement of stockpiles, soil compaction and impervious surfaces may change surface drainage patterns as well, which may result in effects to surface water quantity and quality. The placement of temporary and permanent structures in watercourses has the potential to change stream dynamics and morphology, and cause erosion and sediment issues.

7.2.5 Groundwater

Construction activities such as dewatering, water use, and the creation of impervious surfaces have the potential to result in effects to groundwater. Where dewatering occurs, there may be a temporary lowering of the local water table. A lowering of the water table may result in changes in groundwater quantity, which could decrease baseflow to watercourses, groundwater discharge to wetlands and groundwater flow patterns. These effects are typically confined to the zone of influence from dewatering activities and are temporary in nature. In addition, any private water wells located within the dewatering zone of influence may be temporarily affected by lower well yields and / or changes in water quality.

Blasting of bedrock also has the potential to change groundwater quantity. In rare cases, vibrations from blasting in bedrock can alter the fracture geometry, open new fractures, change the aperture of existing fractures, or permanently change local groundwater flow patterns. Groundwater quality may also be affected through agitation of subsurface conditions and the potential release of fine particulate and / or soluble substances. In the event a groundwater supply well is located within the area where ground vibration results from blasting activities, groundwater supply wells may become physically damaged and result in a reduction in well yield and / or water quality.

Construction dewatering has the potential to change groundwater quality in areas of substantial groundwater recharge through the release of contaminated construction dewatering discharge. When not mitigated effectively, groundwater discharges may also result in erosion and deposition of soils along the discharge path, elevated suspended solids and potential release of contaminants to receiving waterbodies. Groundwater quality may also be affected by leaks and accidental releases of contaminants during construction and operations.

7.2.6 Vegetation

Potential effects on vegetation and ecological communities include changes to community diversity (including community loss), changes to wetland quantity and function, and changes to species diversity.

Activities related to construction, such as vegetation clearing, stockpiling of materials, laydown areas, and excavation could result in the removal and degradation of vegetation, including forested and wetland areas. Direct (i.e., permanent vegetation removal) and indirect (e.g., changes to vegetation from erosion and sedimentation, dewatering, water-taking or water discharging activities and accidental release of contaminants) disturbances have the potential to change the form and function of the vegetation communities. Fragmentation of vegetation communities may also occur as a result of the construction of temporary and permanent components of the Project.

Dust resulting from construction activities and vehicle use of the gravel CAR may damage vegetation primarily through physical effects such as cell destruction and blocked stomata (Spellerberg 1998). Dust accumulation on plants may also affect photosynthesis, respiration and transpiration, which are important processes required for plant survival (Farmer 1993).

Spread of invasive plant species may also occur during vegetation clearing and be introduced on equipment and machinery containing seeds of invasive species.

7.2.7 Wildlife

Potential effects on wildlife and wildlife habitat during construction and operation of the CAR include habitat alteration and / or loss, change in wildlife mortality risk and change in wildlife behaviour.

The potential effects to vegetation (**Section 7.2.6**) may result in effects to wildlife where vegetation that provides suitable habitat will be lost or altered by the Project. This includes direct habitat loss, habitat degradation, and fragmentation during site preparation (e.g., vegetation clearing and site grading), stockpiling of materials, transportation of equipment and materials, and excavation activities. These activities may negatively affect wildlife habitat through increased erosion and sedimentation, soil removal, disturbance and compaction, and accidental release of contaminants. Wildlife may also be displaced during construction when habitat is removed (e.g., clearing and grubbing). Forested habitats are generally associated with a higher number of bird nests per hectare; therefore, the removal of these habitats would result in the displacement of more breeding pairs per hectare compared to other habitats such as grasslands or agricultural fields (Calvert et al. 2013). Also, the effects of dewatering, water-taking or water discharging activities, may negatively affect wildlife and wildlife habitat, particularly for species habitat dependant on surface water or groundwater (e.g., turtle overwintering habitat).

The Project construction and operation phases may result in a higher potential for accidental wildlife mortality through collisions with vehicles, equipment and machinery. Increased mortality risk is of concern during sensitive life stages (e.g., nesting / breeding season).

Noise, lights, and human presence have the potential to change wildlife behaviour through disturbance of wildlife. Disturbance to wildlife during site preparation (e.g., vegetation clearing) and other construction activities, may result in long-term effects (e.g., a decreased breeding success for nesting birds [Environment Canada 2014]). Operation of the CAR may result in continued disturbance and increased risk of mortality of wildlife species through vehicular collisions. The CAR will provide year-round access to the Far North, which is likely to increase access for recreational use. This has the potential to result in an increase in hunting pressure to wildlife populations, higher risk of the introduction of invasive species, parasites and disease, and the accidental release of contaminants to waterbodies.

7.2.8 Fish and Fish Habitat

Project-related effects on surface water quality and quantity (**Section 7.2.4**) may result in indirect effects on fish and fish habitat. Deposition of sediment in a waterbody can result in the loss of or alteration to habitat, alteration to baseflows or water temperatures, disruption of fish life processes, and fish and egg mortality.

The construction of temporary (e.g., bridges, cofferdams, fords, corduroy, swamp mats, culverts, ice and snow crossings) and permanent (e.g., bridges, culverts) watercourse crossings, and blasting as required, have the potential to result in adverse effects to fish and fish habitat. The potential effects associated with placement of structures in water includes disruption of life processes such as migration and spawning due to fish passage issues, fish mortality due to equipment and machinery, dewatering, water-taking or water discharging activities, changes in water quality (accidental release of contaminates), and the degradation, alteration or loss of fish habitat and function. To mitigate potential adverse effects on fish and fish habitat, waterbody crossings and culvert installations will be designed and installed in accordance with applicable federal and provincial guidelines and standards to avoid serious harm to fish that are part of a commercial, recreational or Indigenous fishery, or to fish that support such a fishery.

Blasting near waterbodies may cause the release of blast residues, particles at high velocity, instant and significant pressure changes and exposed soils. This may result in fish and egg mortality and degradation, alteration or loss of habitat.

The CAR will provide year-round access to the Far North, which is likely to increase access to waterbodies for recreational use. This has the potential to result in an increase in angling pressure to fish populations, higher risk of the introduction of invasive aquatic species, parasites and disease, and the accidental release of contaminants to waterbodies.

7.2.9 Species at Risk

Potential effects to SAR include those applicable to vegetation (**Section 7.2.6**), wildlife (**Section 7.2.7**) and fish and fish habitat (**Section 7.2.8**).

7.2.10 Indigenous Knowledge and Land Use

The Project may raise concerns of interested persons for potential effects to the natural environment including wildlife, vegetation and water resources. Potential effects to the environment may affect the Indigenous and Treaty Rights of communities. The potential effects to Indigenous and Treaty Rights include, but are not limited to the following:

- Change to the amount of available reserve lands for MFFN;
- Compatibility of the Project with CBLUP undertaken by Indigenous communities with traditional territory in the area of the Project;
- Changes to access to resource harvesting and cultural sites within and beyond the area of the Project through effects on linear features such as trails and waterways and camps / cabins;
- Changes to subsistence hunting, trapping, fishing and gathering as protected under Indigenous and Treaty Rights;
- Changes to Indigenous landscape features such as Place Names, Boundary Markers and Orientation Points through disturbances to the land within the area of the Project;
- Changes to the environmental conditions such as vegetation, wildlife, fish and water resources that may influence traditional activities within the area of the Project; and
- Change to spiritual and cultural sites such as ceremonial, grave, sacred, gathering and worship areas that may occur in the area of the Project.

7.2.11 Socio-Economic and Built Environment

The Project may alter the demographics, population, regional economy, labour market and public services of communities within or near the Project. These changes may result in a different socio-economic environment within communities, including differing socio-economic structures such as systems and institutions based on the construction and operation of the CAR. The extent of these changes will be based on the land users in the vicinity of the Project, the location of members of MFFN and Project procurement. For example, the location of the CAR relative to trapping area may impact the livelihood of trappers using those areas or the presence of the road may alter the economic makeup of the community. Regarding land use, the Project will disturb lands affecting wildlife, vegetation and water resources. These changes may affect human activities including resource harvesting, existing land uses and industrial uses of the land. Potential effects of the Project are likely to include, but are not limited to:

- Potential changes to the community (e.g., easier access to goods) may entice members of MFFN to return to or exit the community. Changes to population may impact the availability of housing for community members. If population increases or demographics change, strain on public safety services may also occur. These changes may also affect the well-being of the community.

- Changes to diet may also occur if members of MFFN return to live with the community on the reserve. Increased population and access to the Far North for recreational activities (e.g., fishing and hunting) may alter the ability of current MFFN community members to access traditional foods.
- The Project may result in effects to human health by altering public safety, public health, diet and mental health. These changes may be facilitated by additional access to and from southern communities year-round.
- Potential changes to provincial parks and protected area lands that may affect their values.
- Potential changes to recreation and commercial land uses due to changes to wildlife, vegetation or water resources. These changes may affect the enjoyment of these activities, which may negatively impact the tourism sector.
- Changes to industry and resource extraction activities such as mining, aggregate, forestry, linear infrastructure and energy projects. New access may allow industry opportunities to become more feasible thereby allowing for an increase in new development.
- Changes to the regional economy including the labour market. Additional access may affect the local economy through new opportunities for businesses, a lower price of goods and new development.
- Changes to visual aesthetics of the visual landscape through the introduction of a CAR within a primarily undisturbed environment.

Improved access to MFFN may also provide benefits in the form of skill development, training and job creation. Predicted benefits also include, but are not limited to:

- Reduced cost of living in the community;
- Opportunities for employment;
- Improved access to goods and services, such as education and training and health services;
- Increase of band members living year-round in the community; and
- Access to improved health services.

7.2.12 Cultural Heritage Resources

Should any archaeological or built heritage and cultural landscapes be identified in the area of the Project, there is a potential for damage to, or the loss of the cultural heritage resources through ground disturbance activities (e.g., blasting, grading). Any activity with the potential to cause ground disturbance may also inadvertently discover and / or disturb previously unknown resources. Vibration generated by heavy equipment may also damage buried artifacts of archaeological interest in areas where they are operated.

8. Assessment and Evaluation

An assessment and evaluation of the alternative methods identified in **Section 6.3.1** will be undertaken and documented in the EA. The following approach for the identification, assessment and evaluation of the potential effects to be completed within the EA is proposed:

- Review construction and operations activities to identify potential interaction(s) that could result in environmental effects;
- Characterize the existing environment using a combination of existing information and Project-specific investigations;
- Identify criteria and indicators based on standards, guidelines, objectives or other accepted ecological thresholds, where available, to measure changes to the environment;
- Identify potential environmental effects and recommend impact management measures to avoid, eliminate or minimize identified effects;
- Predict and assess potential environmental effects remaining after taking into consideration the recommended impact management measures (i.e., net effects) using direction, magnitude, geographic extent, direction, frequency, reversibility and likelihood to determine significance;
- Complete a comparative analysis of the potential net effects between the alternative routes;
- Consider the environment, cost and constructability of the alternative routes, and compare the advantages and disadvantages of each;
- Identify and describe the preferred route, which is that alternative route that has comparatively more advantages and less disadvantages;
- Complete a comparative analysis of the advantages and disadvantages of the preferred route against the “do nothing” alternative;
- Predict cumulative effects that may result from a combination of the net effects of the preferred route with the effects of other past, present and reasonably foreseeable projects; and
- Identify a monitoring framework for the preferred route that includes monitoring to verify the prediction of the effects assessment and effectiveness of the impact management measures, and a requirement for compliance monitoring of the commitments made in the ToR and EA.

Additional information on the how alternative routes will be compared, proposed criteria and indicators, and the use of Indigenous Knowledge in the EA is provided in the following sections. MFFN acknowledges that the proposed method to assess and evaluate the alternative routes will be open to input by Indigenous communities and interested stakeholders, including government agencies, during review of the Draft ToR.

Uncertainty in the assessment can be reduced by making conservative assumptions, planning implementation of impact management and monitoring measures based on proven and recognized best management practices and requiring adaptive management techniques to address potential unforeseen circumstances should they arise. A more detailed assessment method will be developed and presented in the EA.

8.1 Alternative Route Segments

The proposed alignment of Alternative 1 and Alternative 4 parallel, overlap and cross each other at multiple locations. Where the alternative routes parallel, one route may provide comparatively more advantages than disadvantages and be considered preferred. Therefore, to undertake the assessment and evaluation outlined in

Section 8, the alternative routes will be divided into segments and assigned unique identifiers, which are described as segments between lettered nodes as shown on **Figure 8-1**. The assessment and evaluation will be done on each segment of the alternative routes, with the net effects, and advantages and disadvantages compared as follows:

- Segment AB of Alternative 1 vs. Segment AC of Alternative 4;
- Segment DE of Alternative 1 vs. Segment DE of Alternative 4; and
- Segment FG of Alternative 1 vs. Segment FG of Alternative 4.

The results of the comparison will be the identification of the preferred route, which will be the combination of segments that has comparatively more advantages and less disadvantages. Segments CD, EF and GH correspond to the segments of Alternative 1 and Alternative 4 that overlap. The net effects of these segments will be assessed in the EA and will become part of the preferred route. The preferred route will be compared against the “do nothing” alternative and used to predict cumulative effects.

8.2 Proposed Criteria and Indicators

Criteria are components of the environment that are considered to have economic, social, biological, conservation, aesthetic or cultural values (Beanlands and Duinker 1983). Indicators represent the resource, feature or issue related to the criteria that, if changed, may demonstrate an effect on the environment. The proposed criteria and indicators, including possible data sources, to be used to assess and evaluate the alternative routes in the EA have been included in **Appendix A.** The table includes both quantitative and qualitative criteria. The proposed criteria and indicators are preliminary and will be further refined in the EA, and are provided here for the purposes of gathering feedback for the refinement in the EA. The final list of criteria and indicators to be used in the EA will be based on information that arises throughout the study process and incorporate comments received through consultation.

8.3 Assess and Evaluate Net Effects

As described in **Section 8**, net effects of the alternative routes will be assessed and evaluated by identifying potential effects and predicting the net effects remaining with the recommended impact management measures applied. The net effects will then be described on the basis of their effects characteristics (e.g., direction, magnitude).

The assessment will include both direct and indirect effects of each alternative route segment. A direct effect occurs when there is a change due to a project activity, whereas an indirect effect occurs when a change to a discipline resulting from a project activity causes a change to another discipline (e.g., changes in noise levels could affect wildlife). For each net effect predicted, the direction, magnitude, geographic extent, duration, reversibility, frequency and likelihood (**Table 8-1**) will be described and are combined to reach a conclusion on significance of the net effects, taking into consideration professional judgement.

Table 8-1: Net Effects Characteristics

Effects Characteristic	Definition
Direction	Direction of change from existing conditions
Magnitude	Magnitude is the expected change from existing conditions
Geographic Extent	The spatial area that the effect is expected to occur
Duration	The period of time that the effect is expected to occur
Frequency	How often the effect is expected to occur
Reversibility	The ability to return to existing conditions
Likelihood	Probability that the effect will occur

Gander River
Muswabik River
Marten Falls 65
Albany River
Eabamet Lake
Gourlie Creek
Wabimeig Lake
Chard River
Dark River
Ruby Creek
ALBANY RIVER PROVINCIAL PARK
Makokibatan Lake
Calbert Creek
Ogoki River
Komushikoba River
OGOKI RIVER PROVINCIAL PARK (WATERWAY CLASS)
Ogoki Lake
Little Current River
Britt Creek
Reckett Creek
La Rose Creek
LITTLE CURRENT RIVER PROVINCIAL PARK
Chaucer Creek
Papoose Creek
Ara Lake
Meta Lake
ANACONDA RD
Aroland First Nations
Abamasagi Lake
OGOKI RD
O'Sullivan Lake
Hanover River
Esnagami Lake
Michel Creek
Legarde River
Watistiguam River
Mundino River
Wilgar Creek
Johnson Creek
Cavell Creek
Drowning River
Singing River
Kenogami River
Atikasibi River
643
584
Nakina

Key Map
Windsor Lake
Armstrong
Nakina
Lake Nipigon
Geraldton
Hornepayne
11
Manitouwadge
Kabinakagami Lake
Dog Lake
Lake Superior
17
Map Location

Legend

- Route Alternative Node
- Study Area

Route Label

- Alternative 1
- Alternative 4

General Features

- Highway
- Local Road
- Resource / Recreation Road
- MFFN Existing Winter Access Road
- Railway
- Provincial Park
- Woodlands
- Waterbody
- Wetlands
- Far North Boundary
- First Nation Reserve
- District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Alternative Routes and Segments

0 5 10 20 30
Kilometres
Datum: NAD 1983 UTM Zone 16N

Oct, 2019	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

AECOM

Figure 8-1

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8.4 Incorporation of Indigenous Knowledge in Environmental Assessment

A critical component of the EA is the integration of Indigenous Knowledge into the planning and design process. Indigenous Knowledge is an invaluable, continuously evolving body of knowledge, values and beliefs acquired through learned experience, observation and spiritual teachings. It is a system of classification, a set of empirical observations about the local environment and a system of self-management that governs the use of resources and defines the relationship of living beings with one another and with the environment (Dene Cultural Institute 1995, quoted in Stevenson 1996).

During the EA, Indigenous Knowledge will be used to inform and confirm the proposed criteria and indicators, inform the existing environment conditions, identify and predict potential effects, and help determine appropriate impact management measures and monitoring methods. Indigenous communities will be engaged at critical decision-making points throughout the EA so that MFFN can consider and incorporate, where appropriate, Indigenous Knowledge into key Project and EA process milestones.

The collection and use of Indigenous Knowledge is extremely sensitive in nature and will be guided by the direction and values of the Indigenous communities who participate. MFFN will continue to engage neighbouring Indigenous communities to determine their interest in participating in the Indigenous Knowledge Program. Project timelines will proactively be communicated with the Indigenous communities so that Indigenous Knowledge information can be received in a timely manner for proper consideration in the EA.

The Indigenous Knowledge Program for the EA will occur in two concurrent phases, as further detailed in **Section 7.1.4.11**:

1. Collecting existing Indigenous Knowledge data (i.e., applicable Indigenous Knowledge information previously collected by communities for other purposes that they choose to share with MFFN); and
2. Completing Project-specific Indigenous Knowledge studies.

There are significant benefits of effectively incorporating Indigenous Knowledge in the EA process, including but not limited to:

- Integrating Indigenous Knowledge, including spiritual and cultural values, into environmental decision-making and Project design (e.g., avoiding important cultural or subsistence use areas, informing impact management measures, etc.);
- Informing the selection of criteria and indicators to be used to assess and evaluate net effects;
- Improving awareness of the potential effect development can have on traditional and cultural uses and the subsequent potential effect on spirituality and health; and
- Undertaking collaborative Indigenous stewardship that allows for a more inclusive and holistic approach to environmental management and monitoring.

Key Project and EA milestones where available Indigenous Knowledge will be integrated and incorporated into the EA are described as follows:

- **Informing Criteria and Indicators**
  Neighbouring Indigenous communities will be engaged to help inform and confirm the criteria and indicators selected for the Project from an Indigenous Knowledge perspective. Respecting cultural protocols and governance structures, MFFN will continue to collaborate with Indigenous communities to identify what is important to them and why. Where information has not previously been provided,

Indigenous communities are encouraged to share Indigenous Knowledge on key topics, issues and concerns to help further identify, inform, and refine the criteria and indicators. Indigenous Knowledge will provide different perspectives on the physical and socio-economic environment, and ultimately on what might constitute a criteria and indicator.

- **Assessing Potential Effects**
  MFFN will support interested Indigenous communities in completing Project-specific Indigenous Knowledge Studies during the EA. It is anticipated that information on potential effects will be compiled as part of these studies. Indigenous communities will be consulted and engaged in the effects assessment to help MFFN better understand whether a CAR will have an effect on a particular criteria and indicator based on traditional characteristics of the value and its importance to the people from an Indigenous Knowledge perspective. Through the consultation and engagement program, MFFN will consult and engage with Indigenous communities to identify potential effects from an Indigenous perspective. By utilizing Indigenous Knowledge and collaborating with Indigenous communities, MFFN will be in a better position to document concerns and have Indigenous communities participate directly and effectively in the assessment and evaluation.

- **Developing Mitigation Measures**
  Indigenous Knowledge will assist in identifying appropriate impact management measures so the CAR can be designed, constructed and operated in a manner that meets the needs of the people who use and have in-depth knowledge of the land. MFFN will collaborate with Indigenous Communities and solicit Indigenous Knowledge on measures and solutions to manage potential effects. Indigenous Knowledge will help to identify site-specific measure for sensitive areas, including avoidance where possible. Efforts will be made to identify impact management strategies that include opportunities to support, retain and enhance Indigenous Knowledge during planning, construction, and operation of the CAR.

9. Commitments and Monitoring

The design of the CAR will follow applicable standards, guidelines and impact management measures to minimize adverse effects to the environment. The proposed CAR will be constructed and operated in accordance with applicable legislation and industry best management practices.

9.1 Environmental Commitments

The EA will include a comprehensive list of environmental commitments made by MFFN during the preparation of the ToR. The EA will also include commitments arising throughout the environmental planning process related to the following:

- Development and implementation of impact management measures;
- Completion of additional works and field studies, if required;
- Receipt of regulatory approvals, prior to construction;
- Development and implementation of plans for environmental monitoring;
- Continued consultation with Indigenous communities, stakeholders and interested persons; and
- Contingency planning, documentation and correspondence.

These commitments may relate to construction and operations, impact management measures, and plans for effects and compliance monitoring.

9.2 Environmental Monitoring

MFFN will develop plans for environmental monitoring during the EA process. These plan(s) will identify the compliance and effects monitoring activities to be undertaking during all phases of the Project, as required. Environmental monitoring will verify the potential environmental effects predicted in the EA, evaluate the effectiveness of impact management measures, identify the process MFFN will follow if impact management measures are not effective and determine compliance with applicable environmental legislation, industry standards, permits and commitments made in the ToR, EA and EAA approval.

10. Consultation During the ToR

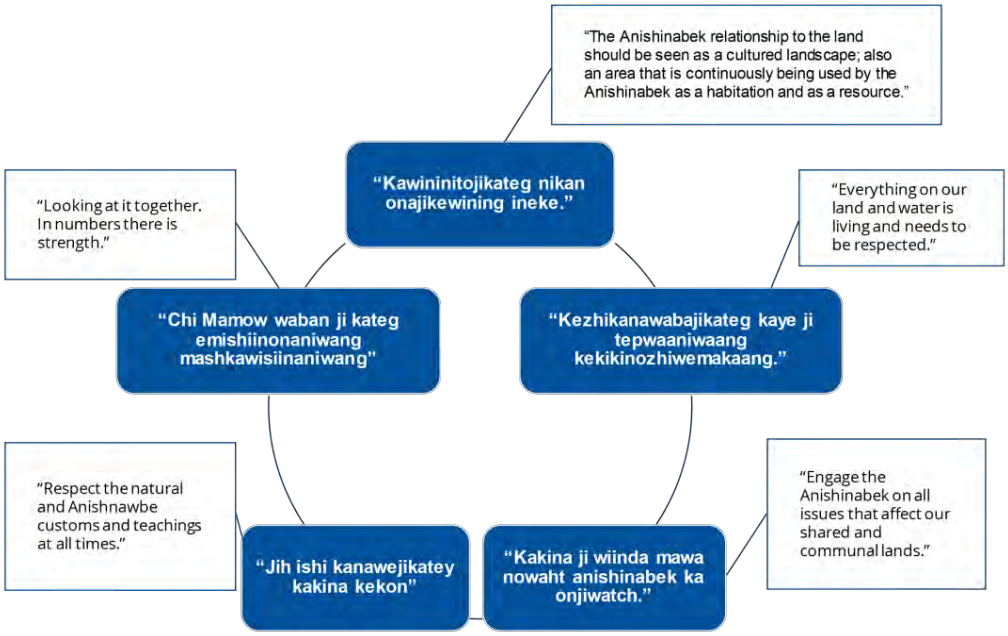
The following describes the results of the public and Indigenous community consultation program that has been undertaken up to October 11, 2019. The ToR consultation activities are continuing through fall 2019 to spring 2020, including the release of this Draft ToR. The results of these ongoing consultation activities will be documented in the Final or "Proposed" ToR that will be submitted to MECP for an approval decision. These ongoing ToR consultation activities and inputs will also feed into the development of the EA Consultation program that is outlined in draft in **Section 11**.

10.1 Principles of Consultation

A primary objective of the EA process, including the ToR development, is to effectively communicate information about the proposed CAR, and to consult with those who may be potentially affected by or have an interest in it. MFFN is committed to creating and sustaining constructive dialogue and relationships with interested persons including MFFN community membership, neighbouring Indigenous communities, government agencies, the public, industry, non-government organizations, and local and regional stakeholders, to support the environmental, social and economic sustainability of the proposed CAR.

To honour the traditional lands that the CAR is proposed to be developed on and to respect MFFN traditional teachings[5], the Guiding Principles presented in **Figure 10-1** will be followed throughout all Project-related consultation activities and the full EA process; from preparation of the ToR to preparation of the EA and implementation of the CAR. These principles have been endorsed by the MFFN Chief and Council.

Figure 10-1: Guiding Principles



5. *Guiding Principles of the Marten Falls First Nation Community-Based Land Use Planning Team for Project Planning and Engagement.*

The Guiding Principles will be put into action by providing meaningful opportunities for input throughout the EA process, including ToR development, by:

- Ensuring early and on-going communication and dialogue—throughout the EA process—with interested persons, including MFFN community membership, neighbouring Indigenous communities and their memberships, and other interested persons;
- Working with Indigenous communities to confirm existence of, align with and respect protocols and policies for Indigenous Knowledge and/ or consultation, and to customize communication plans to meet community needs;
- Delivering Project-related information in a timely and culturally sensitive manner, using plain language translations (i.e., Oji-Cree, as needed) and visual aids to enable understanding;
- Facilitating multiple and ongoing opportunities for dialogue and conversations, and encouraging participation of all age groups, from youth to elders;
- Providing sensitivity to cultural practices, events and activities of Indigenous communities and considering these when planning and scheduling events;
- Facilitating an understanding of both the Indigenous Knowledge and Western science and engineering principles that form the basis of the EA process;
- Providing interested persons, including potentially affected Indigenous communities, the opportunity to record their concerns, questions and opinions on potential effects and mitigation strategies, and their knowledge of the local environment; and
- Demonstrating how feedback was considered and/ or incorporated into decision-making.

In addition to the Guiding Principles, the *Nishnawbe Aski Nation's Consultation Policy*, as outlined in *A Handbook on Consultation in Natural Resource Development* (Nishnawbe Aski Nation 2007), will be used to guide consultation and engagement efforts. This document includes a plan for meaningful consultation between a proponent (MFFN), Indigenous communities and government, particularly on projects or decisions that have a potential to impact Aboriginal and Treaty Rights.

The key elements for meaningful consultation referenced in the Nishnawbe Aski Nation's Consultation Policy include:

- A continuous process;
- Exchanging information;
- Building relationships;
- Getting feedback on the understanding and adequacy of information, and exchanging more information if required;
- Identifying issues;
- Accommodation and reconciliation;
- Fairness; and
- Negotiating with the right attitude.

Consultation protocols of individual communities (should they be available) will also be considered.

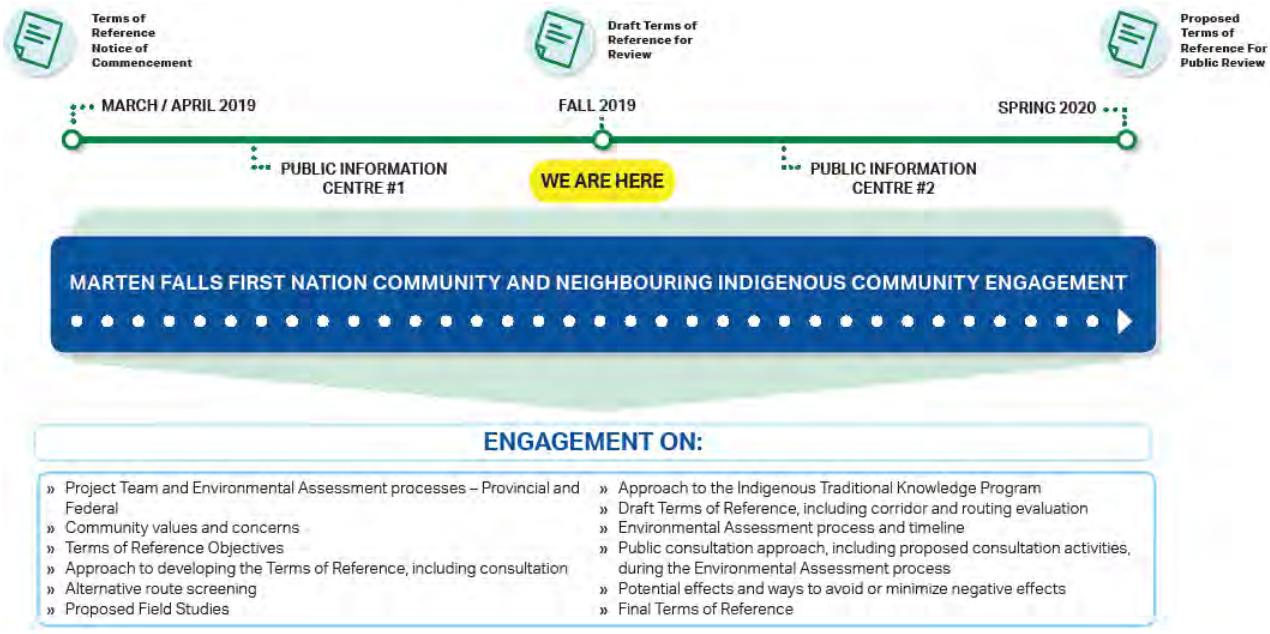
10.2 Summary of Consultation Activities on the ToR

MFFN has been actively engaging MFFN community members and interested persons on the Project since 2017. These consultation efforts took place prior to commencement of the ToR in March 2019 and are documented in *Marten Falls First Nation Community Access Road Supporting Document – Draft Alternatives Development* (AECOM 2019). Engagement with MFFN community membership, neighbouring Indigenous communities and other interested persons during the ToR was initiated with the Notice of Commencement of a ToR in March 2019.

Figure 10-2 illustrates the ToR consultation activities, which are generally organized around the following:

- **ToR Introduction**
  An overall introduction to the Project and the EA process was provided during initial conversations with interested persons. To introduce the ToR phase of the Project, meetings with MFFN Chief and Council and membership and neighbouring Indigenous communities were held, as was the round of Public Information Centres (PICs). During these activities, the Proponent was identified, and objectives, components and potential impacts of the Project were discussed, as was the ToR and EA processes, including schedules and proposed consultation activities. Feedback was sought on each of these elements. As well, efforts were taken to gauge the interest of neighbouring Indigenous communities to participate in the EA process, including discussions to ascertain whether individual communities felt Aboriginal or Treaty Rights might be impacted by development of the CAR.
- **Draft ToR Review**
  These discussions will be initiated with release of the Draft ToR, and a plain-language *Guide to the Draft ToR*, for review by the public, MFFN and neighbouring Indigenous communities' membership and other interested persons. A second round of PICs will also be held (planned for December 2019) and discussions with interested Indigenous communities are planned to review the Draft ToR and receive input. Feedback obtained will help inform the approach taken through the EA, including the approach to consultation, and will be considered in developing the Proposed ToR.
- **Proposed ToR Review**
  The Proposed ToR will be submitted to the MECP for an approval decision. As part of this process, the availability of the Proposed ToR for review and comment will be publicly advertised through notifications (e.g., newspapers, radio, email, hard copy letters) and distribution of the ToR document to Indigenous communities and public review locations. The Proposed ToR, if approved, will be the roadmap for planning and decision-making. It will outline how the EA will be prepared, including what studies will be conducted, the process to identify and assess effects and how people will be consulted. MFFN and neighbouring Indigenous communities, stakeholders and government agencies are encouraged to review and provide input on both the Draft and Proposed ToR. Consultation throughout the EA phase is also key to decision-making.

Figure 10-2: ToR Consultation Activities



The following sections describe the main consultation activities being undertaken during preparation of the ToR. A list of issues received through consultation activities during preparation of the ToR will also be included in the Proposed ToR.

10.2.1 Project Notifications and Information Releases

The following describes public notices and information that have been or will be released during the course of the ToR preparation. Notices to neighbouring Indigenous communities are described further below.

On March 6, 2019 the Notice of Commencement for the ToR was circulated to interested persons, which includes individuals or groups that are potentially impacted by the Project and/ or have an interest in the Project including but not limited to the following:

- Residents of the Municipalities of Greenstone and Thunder Bay;
- Those with recreational interest (e.g., hikers, campers, hunters and environmental groups);
- Camp operators and outfitters;
- Resource users (e.g., forestry, trappers, outfitters, mining and mineral tenure holders in the area);
- Interested businesses; and
- Community and public interest groups.

While this list is not intended to be an exhaustive list of potentially interested persons, it is intended to provide an initial understanding of groups that are in proximity to the proposed Project, or of people and organizations who may have an interest in the potential effects associated with the Project. The Project Contact List will be continually updated as the EA process continues.

To support the circulation of the Notice of Commencement, notices were distributed via mail, email and fax to people identified on the Project Contact List and advertisements were placed on Wawatay Radio during the week of March 6 to 12, 2019. To note, MFFN worked with MECP to finalize a circulation list that provided geographic coverage in a variety of mediums (i.e., mail, fax, email, newspapers and radio) for potentially interested persons. A copy of the Notice and other Project-related information was posted on the Project website. The notice is available in **Appendix C** and was published in the following newspapers:

- Geraldton Times Star;
- Chronicle Journal;
- Thunder Bay Source;
- Wawatay News;
- TBNewsWatch;
- Windspeaker; and
- Anishinabek News.

On April 12, 2019, a notice was circulated to interested persons for a PIC held on April 30 and May 1, 2019. The notice was provided via hard and electronic copy circulation (e.g., mail, email) and posted on the Project website. The notice was published in the following newspapers: Thunder Bay Source, Wawatay News, TBNews Watch and Wawatay Radio (30 second radio ads during the week of April 15 to 19, 2019) (**Appendix C**).

A Notice of Publication of the Draft ToR will be advertised in the seven (7) papers listed above and will be circulated to interested persons to advise them of the release of the Draft ToR for review, which is planned for fall 2019. The notice will be provided via hard and electronic copy circulation (e.g., mail, email and fax) and posted on the Project website.

For the second PIC planned for December 2019, notices will be released in the same manner as for PIC 1.

Following the Draft ToR review period, and subsequent updates to the ToR, a notice will be circulated to interested persons advising them of the release of the Proposed ToR for review; currently planned for spring 2020. The notice will be advertised, provided via hard and electronic copy circulation (e.g., mail, email and fax) and posted on the Project website.

A Project website was developed and became active on March 6, 2019 (www.martenfallsaccessroad.ca). The website is periodically updated with Project information including all relevant Project Notices (e.g., Notice of Commencement, PIC invitations) and other Project-related materials including maps.

10.2.2 Indigenous Communities Engagement

Prior to commencing the ToR, MFFN held Project-related discussions with several Indigenous communities between 2017 and 2018. A summary of these activities is provided in *Marten Falls First Nation Community Access Road Supporting Document – Draft Alternatives Development* (AECOM 2019).

The MECP (in a letter dated December 19, 2018)) identified 22 neighbouring Indigenous communities to be consulted on the basis that they have or may have constitutionally protected Aboriginal or Treaty Rights that may be impacted by the CAR or that they may be interested in the Project. These communities are listed in **Table 10-1**. The IAAC in their 'Preliminary List of Indigenous Communities for Proponent Engagement on the Martin Falls Access Road' also identified neighbouring Indigenous communities the Project should consult with; their list of 15 communities included all of the communities identified by the MECP plus one additional community, Mishkeegogamang First Nation. MFFN is determining how best to engage with Mishkeegogamang First Nation through the ToR process and will provide further details in the Proposed ToR.

The MECP and IAAC letters received by MFFN can be found in **Appendix C**.

Table 10-1: Identified Indigenous Communities, including their Provincial Territorial Organizations and/ or Tribal Council Affiliations

Tribal Council Affiliation	Community or Organization
Matawa First Nation (Nishnawbe Aski Nation)	▪ **Marten Falls First Nation** (Proponent and potential impacted Indigenous community) ▪ Aroland First Nation ▪ Constance Lake First Nation ▪ Eabametoong First Nation ▪ Ginoogaming First Nation ▪ Long Lake #58 First Nation* ▪ Neskantaga First Nation ▪ Nibinamik First Nation ▪ Webequie First Nation
Mushkegowuk Council (Nishnawbe Aski Nation)	▪ Attawapiskat First Nation ▪ Fort Albany First Nation ▪ Kashechewan First Nation
Shibogama First Nations Council** (Nishnawbe Aski Nation)	▪ Kasabonika Lake First Nation ▪ Kingfisher Lake First Nation ▪ Wapekeka First Nation; ▪ Wawakapewin First Nation ▪ Wunnumin Lake First Nation
Independent First Nations Alliance (Nishnawbe Aski Nation)	▪ Kitchenuhmaykoosib Inninuwug
Independent Bands (Nishnawbe Aski Nation)	▪ Weenusk First Nation
Nokiiwin Tribal Council and the **Union of Ontario Indians**	▪ Animbiigoo Zaagi'igan Anishinaabek (AZA)*
Métis Nation of Ontario	▪ Métis Nation of Ontario; Region 2*
Independent Métis Nation	▪ Red Sky Independent Métis Nation*

*Note: * Indigenous communities or organizations identified by MECP who should be consulted on the basis that they may be interested in the CAR.*

Those Tribal Councils, Nations and Alliances listed above, as well as the Chiefs of Ontario, have been identified as potentially interested in the Project, and will be provided with information and the opportunity to meet with MFFN throughout the EA process. **Figure 10-3** illustrates the location of the Indigenous communities neighbouring Marten Falls First Nation.

The Province of Ontario (MECP and ENDM) and MFFN are entering into an agreement through a Memorandum of Understanding (MOU) to share responsibility of the procedural aspects of Ontario's Duty to Consult, in the context of the EA for the Project. This MOU will define the roles and responsibilities of both parties in regard to the engagement of interested Indigenous communities. The roles and responsibilities of Marten Falls agreed to in the MOU will be included in the Proposed ToR, if the MOU is finalized at that time.

The identified Indigenous communities were provided early notice of the Project through a letter from MFFN on December 13, 2018. They also received the Notice of Commencement of a ToR in early March 2019 and were sent a follow-up letter on April 4, 2019. Copies of the letter and Notice are in **Appendix C**. Attempts were made to contact each community by phone to determine if they may have an interest in the EA. A minimum of four calls were made to the communities from mid-April to early October 2019, and voicemail messages were left in cases where no one answered the phone and a voicemail system was active.

At this time, all identified Indigenous Communities have been contacted by MFFN with conversations ranging from preliminary discussions, and one-way circulation of information, to Chief and Council meetings followed by meetings with the broader community. The *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a*)*, provides a summary of the attempts to engage with Indigenous communities up to October 24, 2019.

The following provides a summary of the engagement results with the communities up to October 24, 2019.

- **Fourteen (14) communities** have to date expressed an interest in meeting to better understand the Project. Those communities MFFN has met with already are indicated with an asterisk below (*); conversations are still ongoing with the remaining communities to determine an appropriate meeting time.
  - Marten Falls First Nation*;
  - Aroland First Nation*;
  - Attawapiskat First Nation*;
  - Neskantaga First Nation;
  - Eabametoong First Nation (Fort Hope)*;
  - Webequie First Nation*;
  - Red Sky Independent Métis Nation
  - Fort Albany First Nation*;
  - Ginoogaming First Nation;
  - Animbiigoo Zaagi'igan Anishinaabek;
  - Constance Lake First Nation;
  - Long Lake #58 First Nation;
  - Kitchenuhmaykoosib Inninuwug*; and
  - Kashechewan First Nation.
- **Eight (8) communities** have expressed interest in receiving Project materials and will contact MFFN if they would like to meet in the future. MFFN will continue outreach on an on-going basis to these communities.
  - Wunnumin Lake First Nation;
  - Wapekeka First Nation;
  - Wawakapewin First Nation;
  - Nibinamik First Nation;
  - Weenusk First Nation;
  - Kingfisher Lake First Nation;
  - Kasabonika Lake First Nation; and
  - Métis Nation of Ontario, Region 2.

MFFN, as the proponent, will continue to attempt to engage and meet with interested Indigenous communities throughout the EA process. Input received during this period will be incorporated into the Proposed ToR to be submitted to MECP. In December 2019, all 22 Indigenous communities (listed in **Table 10-1)** will be sent a plain-language *Guide to the Draft ToR*, along with the Draft ToR, and an offer to meet with communities to 'walk through" the Draft ToR if they are interested.

Weenusk First Nation

Kitchenuhmaykoosib First Nation

Wapekeka First Nation

Kasabonika Lake First Nation

Wawakapewin First Nation

Webequie First Nation

Wunnumin First Nation

Kingfisher Lake First Nation

Nibinamik First Nation

Attawapiskat First Nation

Attawapiskat First Nation

Kashechewan First Nation

Fort Albany First Nation

Neskantaga First Nation

Eabametoong First Nation

Marten Falls First Nation Intersect

Aroland First Nation

Constance Lake First Nation

Long Lake No.58 First Nation

Animbiigoo Zaagi'igan Anishinaabek

Ginoogaming First Nation

ONTARIO

UNITED STATES

Key Map

Map Location

Legend

Route Label

- Alternative 1
- Alternative 4
- First Nation Reserve

Marten Falls First Nation
All Season Community Access Road

Location of Neighboring Indigenous Communities

0 10 20 40 60 80 100
Kilometres

Datum: NAD 1983 CSRS UTM Zone 16N

Oct, 2019	1:2,500,000 * when printed 11"x17"	Data Sources: MNRF
P#:60593122	Rev:00	

AECOM

Figure 10-3

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A summary of the efforts made to engage with each of the 22 Indigenous communities and correspondence received from the communities from March 4 to October 24, 2019 is provided in Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation (AECOM 2019a).

The Province of Ontario has provided notice to each of the 22 Indigenous communities that funding will be made available to support review by each community. Where possible, MFFN has informed Indigenous communities of this potential funding and encouraged them to follow up with the Province of Ontario.

The following describes meetings that were held with Indigenous communities as part of the ToR preparation period up October 24, 2019.

10.2.2.1 Marten Falls First Nation

During preparation of the ToR, meetings were held with the MFFN community, as the proponent and most directly impacted community in relation to the Project, to inform them of the Project and to receive their feedback. **Table 10-2** identifies the four series of meetings that were held with community members up to the preparation of the raft ToR. The meetings were open to members of MFFN and were held on and off-reserve. Notices were provided via hard and electronic copy circulation (e.g., mail, email) posted on the Marten Falls Community News and Mining Facebook Page, the Ogoki Post #65 Facebook page, and the Project website. For the June and October meetings, notices were posted on a Project-specific bulletin board in the community's band office and posted on the community's Facebook page.

The purpose of the meetings was to provide community members an opportunity to learn about the ToR process including the ToR engagement program, to express concerns and issues regarding the Project, to provide feedback on the ToR content including the alternative routes, and to review the proposed engagement plan for the EA.

Table 10-2: MFFN Community Member Meetings

Date	Location	Meeting Information—Summary
March 2019	▸ Thunder Bay – March 20, 2019 ▸ MFFN – March 21, 2019	Introduce the Project and discuss the provincial EA process.
May 2019	▸ Thunder Bay – May 6, 2019 ▸ MFFN – May 7, 2019 ▸ Geraldton – May 8, 2019	Provide information on the alternative routes and next steps for consultation.
June 2019	▸ Thunder Bay – June 25, 2019 ▸ MFFN – June 26, 2019	Present the Draft ToR, including approach to alternatives evaluation and effects assessment, potential effects and impact management measures, EA process and timing, and approach to consultation through the EA.
October 2019	▸ Thunder Bay – October 17, 2019 ▸ MFFN – October 18, 2019	The purpose of the community meetings in October was to: ▪ Describe changes to the Impact Assessment Act and implications to the Project; ▪ Provide an update on the Project and associated activities that have taken place since the last community meeting; ▪ Introduce the Draft ToR; ▪ Provide a status update on the study timelines; and ▪ Discuss next steps for the EA process.

The general format of the meetings was typically a short presentation followed by either small group discussions and / or individual discussions associated with the review of information provided on display panels. A copy of the notifications, presentation materials and display panels used at the meetings as well as a meeting minutes are

available in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a)**.** Input received from the meetings will be incorporated into the Proposed ToR to be submitted to MECP.

The MFFN community, being the community that is most involved in and impacted by the Project given that the CAR is being developed to provide access specifically to their community, has specific feedback related to the Project that is unique to their community. The following is a summary of the main issues of interest regarding the Project received from the MFFN community to date.

- Changes to water quality and flows;
- Waterway navigability;
- Potential effects on wildlife habitat;
- Potential effects on MFFN community and environmental health, particularly related to the possibility of a supply road passing through the community (noise and impacts on sleeping);
- Socio-economic changes to MFFN community (positive and negative);
- Potential effects on culturally significant sites;
- Potential effects of new public access into MFFN territory (e.g., increased hunting pressure);
- Potential for increased drugs in the community; and
- Visual / landscape changes.

Meeting participants also described, through the “Benefits Tree” diagram available at community meetings, the following positive attributes of the Project:

- Increased economic development and business opportunities and increased job creation, including those relating to new resource extraction activities;
- Reduction in costs to education, health services and freight charges; and
- Increased potential for recreation activities and increased participation in cultural activities.

Further, at the May 2019 meetings, Community Members were provided the opportunity to provide comment on potential alternative routes for the CAR. While community members did indicate a preference for a CAR with shorter road lengths, community members were generally supportive of the proposal to focus the EA on the western routes.

Opportunities for youth to participate were available at the March 2019 and May 2019 community meetings in Marten Falls. These included a brief presentation to grade school students at the Henry Coaster Elementary School, followed by group discussion to obtain feedback.

10.2.2.2 Neighbouring Indigenous Communities

Table 10-3 includes a summary of consultation with neighbouring Indigenous communities that has occurred up to October 24, 2019. A summary of key comments made, any issues raised, and follow-up activities is also provided. The issues and comments made will be considered in the EA. As consultation on the ToR continues it is expected that this summary list of issues and comments will be expanded on for the Proposed ToR. A copy of the presentation materials used at the meetings and meeting minutes are available in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a).

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community / Date*	Description	Key Comments and/or Issue Raised
Aroland First Nation **May 23, 2019**	▪ A meeting was held with the Aroland First Nation Chief and Council and the community to introduce the Project and ToR process. The community meeting provided an update on the Project, including a look at alternative routes and outlining items to be presented in the ToR. Preceding the community meeting a meeting was held with Aroland Chief and Council.	▪ That Aroland is interested in participating in the MFFN EA. Aroland has traditional territory that extends into the southern limits of the Project. ▪ Attendees expressed support for the MFFN CAR. ▪ The relationship and overlap of the Aroland Painter Lake Road upgrade project and the MFFN CAR was discussed. ▪ That Indigenous communities need to be included and benefit from any development that happens as a result of the road, forestry, tourism etc. ▪ That the environment needs to be protected / managed responsibly (for seven generations). ▪ One attendee expressed concerns with the top down approach and lack of involvement at the community level, also was frustrated at the pace of development. ▪ There is interest in future community meetings regarding the MFFN EA.
Fort Albany First Nation **August 2, 2019**	▪ A meeting was held in Thunder Bay with Chief Metatawabin and a community advisor. The purpose of the meeting was to provide an update on the MFFN CAR, including an outline of the ToR process and content, alternative routes, and to understand the potential interest that Fort Albany First Nation may have in the Project.	▪ No specific concerns were expressed about the Project. ▪ Interest was expressed on how MFFN might control access and the flow of people and goods into the Community. ▪ MFFN was encouraged to prepare an economic development plan in association with their road project. ▪ Fort Albany First Nation is hoping that a relationship with Marten Falls First Nation continues considering that the two communities are on the same river system. The alignment of the two communities is important.
Eabametoong First Nation **August 7, 2019**	▪ A meeting was held at the Eabametoong First Nation community. A meeting with Chief and Council was first held followed by a presentation to the larger community. The purpose of the meeting was to introduce the CAR, including an outline of the ToR process and content, alternative routes, and to understand the potential interest that Eabametoong First Nation may have in the Project.	▪ That there may be interest in Eabamettong participating in the MFFN EA. ▪ Interest in the formation of a relationship agreement so that MFFN works together with Eabametoong as the communities share the river, have shared history and a shared family lineage. ▪ It was asked whether a regional strategic EA including the road to the RoF would be considered. ▪ Question about the type of EA being completed was asked.
Webequie First Nation **August 9, 2019**	▪ A meeting was held at the Webequie First Nation with members of Council. The purpose of the meeting was to provide an update on the Project, including an outline of the ToR process and content including alternative routes, and to understand the potential interest that Webequie First Nation may have in the Project.	▪ Questions were asked about how the CAR would be constructed including sources of aggregate material. ▪ It was asked if capacity funding would be available for participation in the Marten Falls EA. ▪ It was noted that there could be information collection/sharing opportunities in regard to Indigenous Knowledge as the two projects have some common communities to engage with. ▪ Questions about planned baseline water studies for both projects were raised. ▪ Interest was expressed on having regular calls to update each community on the MFFN and Webequie road EA. ▪ The two communities are to explore a future meeting regarding the sharing of Indigenous Knowledge.

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community / Date*	Description	Key Comments and/or Issue Raised
Attawapiskat First Nation **August 13, 2019**	▪ A meeting was held with a representative of the Attawapiskat First Nation to provide an update on the MFFN CAR EA.	▪ A request was made for a MOU to guide Attawapiskat First Nation involvement during the MFFN EA. ▪ It was also asked if participant funding would be available. ▪ There is interest in receiving future Project documents and the potential for future meetings will be determined as the EA progresses.
Kitchenuhmaykoosib Inninuwug First Nation **September 6, 2019**	▪ The purpose of the meeting was to introduce the Project, gather input on the Project and present next steps and future engagement activities. The presentation content included an outline of the ToR and EA processes, including alternative routes.	▪ Questions were asked about Marten Falls and where the community and proposed CAR are located. ▪ It was noted that some Kitchenuhmaykoosib Inninuwug community members hunt caribou and there is interest in learning how the EA will assess the potential for impacts on Caribou including migration paths. MFFN will keep the community informed on EA assessment work related to caribou movement.
Aroland First Nation **October 22,2019**	▪ A conference call was held with representatives of MFFN and the Aroland First Nation. The purpose of the call was to update Aroland on the status of the CAR and for Aroland to update MFFN on the Painter Lake Road upgrade project.	▪ Aroland continues to have interest in the CAR. ▪ Monthly update calls will be scheduled. ▪ MFFN will present an update to the Aroland Community in late November 2019 after the Aroland elections. ▪ MFFN will provide an outline of the Community Consultation Coordinator position. ▪ The two communities will hold future discussions on how Anishinabek Knowledge collection can be coordinated for the two road projects.

10.2.3 Public and Other Interested Stakeholders

Consultation with the public and other interested stakeholders undertaken during the ToR included the release of Project notices, the development and update of the Project website a PIC, and meetings with interest groups. An initial list of contact information of public and other stakeholders was developed based on discussions prior to the initiation of the provincial EA and during preparation of the ToR. Public stakeholders are individuals and groups that could have an interest in the Project, including but not limited to communities in the region (e.g., Geraldton, Longlac), recreational users or those with recreational interest (e.g., hikers, campers, hunters, and environmental groups), and those with commercial interests (e.g., forestry, trappers, outfitters, other mineral tenure holders in the area).

The first round of PICs were held April 30 and May 1, 2019 in Thunder Bay and the Municipality of Greenstone (Geraldton), respectively. Notices for the PICs were placed in local newspapers and on radio during the week of April 15 to 19, 2019 (i.e., Thunder Bay Source, Wawatay News, TBNewsWatch, Wawatay Radio). The PICs were also advertised on the Project website and notices were sent to those on the Project Contact List.

The PICs provided an update on the Project, including a look at alternative routes and outlined information that would be presented in the ToR. The meetings were held as an open house format and featured a series of 25 display boards. Participants were encouraged to review all of the display boards and provide comments using the materials and comment forms provided or by having one-on-one discussions with members of the Project Team. Subject matter experts from the Project Team were stationed alongside corresponding display board groups to help ensure all questions and comments were answered and captured accordingly.

Approximately 39 individuals signed into the PICs (30 people on April 30 and 9 people on May 1, 2019). Attendees included Indigenous community members, provincial agencies, members of the public and industry representatives (including small business owners and union representatives). A full description of the event is provided in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a), including presentation material used and key issues raised.

A second round of PICs is planned for December 2019 in Thunder Bay and the Municipality of Greenstone. Notices for the PIC will be placed in local newspapers in advance of the meeting and mailed/emailed to those on the Project Contact List. The PIC will also be advertised on the Project website. This PIC will provide information about the Draft ToR including the alternative routes and consultation plan for the EA. Input received during the second round of PICs will be incorporated into the proposed ToR to be submitted to MECP.

On May 22, 2019, a meeting was held with Geraldton Area Natural Resource Advisory Committee to introduce the Project, discuss the EA process and answer questions of the attendees. A copy of the presentation materials used at the meeting, as well as a summary of issues raised, is available in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a).

In addition, MFFN hosted a booth at the trade show of the Northern Ontario First Nations Environment Conference on October 9, 2019 to raise awareness about the proposed CAR. As a result, 19 new email addresses were added to the electronic mailing list. MFFN also submitted an advertisement in September 2019 to be published in the November 2019 issue of the Assembly of First Nations' official semi-annual publication, *The Circle*. *The Circle* has a circulation list of 3,500 and is distributed at assemblies, trade shows, meetings and other events across Canada. The advertisement provided a snapshot of the Project, along with the community benefits tree design, and directed readers to the website and Project contacts for more information.

10.2.4 Government Agencies

Throughout the course of the ToR development, MFFN has discussed the Project with provincial and federal government agencies during regular conference calls and meetings on various aspects of the EA including timing for reviews of the ToR, data availability, alternative routes identification process and consultation activities, particularly as they relate to Indigenous communities. The government agencies that are members of the interagency EA Coordination Team include (but are not limited to):

- ENDM;
- MECP;
- MNRF; and
- IAAC; formerly the Canadian Environmental Assessment Agency.

In addition to regularly scheduled EA Coordination Team meetings, MFFN has met with MECP, ENDM and MNRF during the ToR development to seek input and guidance on specific aspects of the ToR (**Table 10-4**).

Table 10-4: Government Agency Meetings

Agency	Date	Location	Notes
MECP	May 30, 2019	Teleconference	Overview of Draft ToR and anticipated schedule
MECP	June 6, 2019	Teleconference	Meeting to discuss alternatives assessment for Draft ToR
MECP	June 20, 2019	Teleconference	Meeting to discuss consultation materials
MECP	July 31, 2019	Teleconference	Meeting to discuss caribou baseline and effects assessment
MECP and ENDM	August 22, 2019	Toronto and Teleconference	Meeting to discuss comments on Draft ToR
MECP and ENDM	August 28, 2019	Toronto and Teleconference	Meeting to discuss comments on Draft ToR
MECP and ENDM	September 19, 2019	Toronto and Teleconference	Meeting to discuss comments on Draft ToR related to consultation
MECP and ENDM	October 22, 2019	Toronto and Teleconference	Meeting to discuss comments on the MOU and comments on Record of Consultation

MFFN met with MECP and ENDM on May 30, 2019 and June 6, 2019 to seek input on the proposed alternatives and method of evaluation. MECP, ENDM and MNRF provided written comments on the Draft Alternatives Methods and Initial Screening Report (AECOM 2019b) on May 29, 2019. Responses to these written comments have been included the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a) and, where applicable, include references to sections of the Draft ToR that have been edited in response to the comments.

MFFN met with MECP and ENDM on August 22 and 28, 2019 and September 19, 2019 to discuss written comments provided by MECP on their review of the Draft ToR (which was submitted to MECP by MFFN on July 2, 2019). The August 22, 2019 meeting largely focused on a discussion of the historical development of the alternative methods. The August 28, 2019 meeting involved a detailed review of the Draft ToR comments and a review of the May 29, 2019 comments on the Draft Alternatives Methods and Initial Screening Report. The September 19th, 2019 meeting was focused on the comments related to consultation. Responses to the written comments have been included in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a) and, where applicable, include references to sections of the Draft ToR that have been edited in response to the comments.

MFFN has engaged MECP and MNRF specifically with respect to baseline effects assessments including field work plans, permit applications, data requests, and the methodology and scope to be used for the caribou baseline and effects assessment. MFFN provided MECP and MNRF work plans associated with field work planned during 2019

for review, however the agencies have indicated they will not be commenting on work plans until the ToR is finalized. A meeting was held with MECP and MNRF on July 31, 2019 to review the information shared in the May 29, 2019 comments and to discuss the effects assessment on caribou, following which MFFN provided the necessary information for MECP to run the Caribou Screening Tool for the Project. The Project is still awaiting the output from the Caribou Screening Tool as the agencies have indicated the Tool is currently not functioning properly.

Based on their proximity to the proposed CAR, The City of Thunder Bay and the Municipality of Greenstone are included in the EA Consultation program. On May 23, 2019, a meeting was held with the Mayor of Greenstone (Mayor Renald Beaulieu) to inform him of the Project and to advise him of future consultation meetings. A copy of the presentation materials used at the meeting, as well as a summary of issues raised, is available in the *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019a).

10.2.5 Release of Draft ToR

The Draft ToR is planned for release in fall 2019 for review by interested persons and Indigenous communities. Notices regarding the availability of the Draft ToR will be placed in local newspapers and sent to those on the Project Contact List and to neighbouring Indigenous communities. The Draft ToR will also be made available through the Project website and hard copies made available at public locations in Thunder Bay, Geraldton, Timmins, Marten Falls Band Office, Matawa First Nations Management and two MECP offices. The Draft ToR will be provided to the 22 Indigenous communities with an offer to meet to discuss the documents with them. MFFN in consultation with the neighbouring Indigenous communities will give consideration to providing a copy of the Draft ToR at Band offices.

Further to the above, the Draft ToR will also be submitted to the Government Review Team which includes the following provincial agencies that may have an interest or comments on the Draft ToR:

- ENDM;
- MECP;
- MNRF;
- IAAC;
- MTO; and
- MHSTCI.

10.3 Release of Proposed ToR

Following the Draft ToR review period, the ToR will be revised and then finalized. As per the MECP ToR review and approval decision process, the Proposed ToR that will be submitted to MECP for review and an approval decision will be publicly released for review by interested members of the public and Indigenous communities. The availability of the Proposed ToR will be advertised through newspaper notices, on the Project website and through email/ mail to those on the Project Contact List. All 22 Indigenous communities that have been identified by the MECP will be sent a copy of the Proposed ToR for their review. The Proposed ToR will also be sent to the Government Review Team. A request for comments on the Proposed ToR will be made as part of the notifications for submission to the MECP.

11. Consultation Plan for the Environmental Assessment

This section provides an overview of MFFN's planned approach to consultation and engagement during the EA, with details related to the key stakeholders, planned approach, activities, milestones and scheduling provided in the *Draft Environmental Assessment Consultation Plan* (**Appendix B**). Input received to date from MFFN community members and interested persons, neighbouring Indigenous communities, government agencies, the public, industry, non-government organizations, and local and regional stakeholders has helped shape the planned approach to consultation proposed in the *Draft Environmental Assessment Consultation Plan* (**Appendix B**).

Consultation planned for the EA has been designed to meet consultation requirements outlined in section 5.1 of the EAA, the *Code of Practice for Consultation in Ontario's Environmental Assessment Process* (MECP 2014a) and *Code of Practice on Preparing and Reviewing Environmental Assessments in Ontario* (MECP 2014b). The *Draft Guidelines for Consultation with Indigenous Peoples related to Aboriginal Rights and Treaty Rights (Government of Ontario 2019c)* and the *Nishnawbe Aski Nation Handbook on Consultation in Natural Resource Development* (Nishnawbe Aski Nation 2007) were also used for guidance where appropriate.

MFFN's proposed approach to consultation is preliminary and subject to revision based on input received during preparation of the ToR, including any feedback received during public review of the Draft ToR document, and through future engagement during preparation of the EA. As such, it is expected that the EA Consultation Plan may evolve to include the possible development of tailored consultation plans for select interested Indigenous communities.

11.1 Importance of Consultation

MFFN's primary consultation objectives during the EA is to: effectively communicate information about the proposed CAR; to consult with those who may be potentially affected by, or have an interest in the Project or the lands potentially affected by the Project; and to receive the input of interested persons and communities so that any issues or concerns can be addressed in the EA or future Project design process.

Neighbouring Indigenous Communities: The MECP and IAAC identified First Nations, Métis and Traditional Land-Based Rights Holders who may be interested in the MFFN Community Access Road and should be consulted with as part of the EA. The term 'neighbouring' is used to identify any Indigenous community being engaged with respect to the Project.

MFFN is committed to creating and sustaining constructive dialogue and relationships with interested persons, including MFFN community membership, neighbouring Indigenous communities and their memberships, government agencies, the public, industry, non-governmental organizations and local and regional stakeholders, to support the environmental, social and economic sustainability of the proposed CAR. The purpose of MFFN's EA Consultation Plan is to:

- Outline how MFFN (as the Proponent) will consult with MFFN community membership, neighbouring Indigenous communities, members of the public, government agencies and other stakeholders;
- Describe how key information will be shared and how input will be obtained, addressed and considered;
- Identify key milestones, timing, targeted input and key consultation questions;

- Provide an issues resolution strategy; and
- Provide a strategy for monitoring and evaluating the effectiveness of communication and consultation efforts throughout the EA process.

More information regarding the Principles and Key Elements that will guide consultation during EA is provided in Chapter 10 and the *Draft Environmental Assessment Consultation Plan* (**Appendix B**).

11.2 Duty to Consult

Aboriginal and Treaty Rights are guaranteed under section 35 of the *Constitution Act*, which includes recognition of existing Indigenous and Treaty Rights to hunt, trap, fish, gather and manage the lands for all First Nation, Inuit and Metis people of Canada. As part of these rights, the Government of Canada has the Duty to Consult Indigenous communities for this Project.

The MECP (in a letter dated December 19, 2018) identified 22 neighbouring Indigenous communities to be consulted on the basis that they have or may have constitutionally protected Aboriginal or Treaty Rights that may be impacted by the CAR, or that they may be interested in the Project. The IAAC in their 'Preliminary List of Indigenous Communities for Proponent Engagement on the Martin Falls Access Road' also identified neighbouring Indigenous communities the Project should consult with; their list of 15 communities included all of the communities identified by the MECP plus one additional community, Mishkeegogamang First Nation. MFFN is determining how best to engage with Mishkeegogamang First Nation through the ToR process and will provide further details in the Proposed ToR.

The Province of Ontario (MECP and ENDM) and MFFN are entering into an agreement through a MOU to share responsibility of the procedural aspects of Ontario's Duty to Consult, in the context of the EA for the Project. This MOU will define the roles and responsibilities of both parties in regard to the engagement of interested Indigenous communities. The roles and responsibilities of Marten Falls agreed to in the MOU will be included in the Proposed ToR, if the MOU is finalized at that time.

11.3 Indigenous Communities and Key Stakeholder Identification

An initial list of stakeholders was developed based on discussions and Project development prior to the initiation of the provincial EA and during preparation of the ToR. Key stakeholders are individuals and groups who could have an interest in the Project including but not limited to Indigenous communities, including MFFN members, government agencies, and the public and other stakeholders.

The Project Contact List developed during the ToR will be expanded on throughout the EA and will be used to inform key stakeholders about the EA and planned engagement activities.

11.3.1 Identification of Indigenous Communities

MFFN is currently engaging the Indigenous communities identified to-date by the MECP and IAAC and will continue to do so throughout the EA, as per the level of interest expressed by each community. MFFN will also work with communities to collect Indigenous Knowledge to incorporate into the EA regarding traditional land and resource use and cultural practices. **Section 10** provides the list of identified Indigenous communities.

Participation of Indigenous communities, including MFFN community membership, during the EA is intended to allow MFFN to identify, consider and respond to potential concerns and issues of interested Indigenous communities and to provide those communities with an opportunity to receive information and provide meaningful

input into the EA process. It is MFFN's intent throughout the EA to engage interested Indigenous communities and organizations at an appropriate depth and frequency based on a community's interest and the potential for any effects related to the proposed all season CAR. Recognizing that the appropriate level of engagement will vary by community and may evolve through ongoing discussions, the approach to consultation for each community will be flexible and open to change as the EA progresses.

It is not MFFN's intent to dictate the form of engagement to be offered to each community, although effort has been made to predict an appropriate level of consultation. The proposed consultation activities and schedule outlined in the Draft EA Consultation Plan will be used as the foundation for consultation with Indigenous communities. As discussions progress with interested communities, more focused consultation efforts will be developed and uniquely applied as needed. If an Indigenous community has a Community-Based Land Use Plan or other plans (e.g., Consultation or Indigenous Knowledge Protocols) that might be useful to reference and work with, they will, with permission, be used to help shape community-specific engagement and consultation efforts.

All identified communities will receive all statutory notices related to the EA (e.g., Notice of Commencement of the Environmental Assessment) and comprehensive, plain-language Project updates through email, mail and the Project website. Each will also be provided the full opportunity to review and comment on key EA documents including the Draft and Proposed ToR as well as the Draft and Final Environmental Assessment Report. In addition, Indigenous communities, depending on their level of interest in and the potential for impacts related to development of the CAR, will be encouraged or offered the opportunity to meet in-person to discuss the Project and gather feedback at appropriate milestones throughout the EA.

More information regarding the manner in which MFFN intends to consult with Indigenous Communities and the proposed activities and milestones to obtain their feedback throughout the EA is provided in the *Draft Environmental Assessment Consultation Plan* (**Appendix B**).

11.4 Government Agencies

11.4.1 Government Review Team

Throughout the course of the ToR development, the MFFN Project Team has discussed the Project with provincial and federal government agencies during regular conference calls and meetings on various aspects of the EA, including timing for reviews of the ToR, data availability, route selection process and consultation activities (particularly as they relate to Indigenous communities). The government agencies that are members of the Government Review Team were outlined in Section 10.2.4., and include:

- ENDM;
- MECP;
- MNRF;
- IAAC
- MTO; and
- MHSTCI.

Throughout the EA process, it is anticipated that the Government Review Team will provide information and guidance for MFFN to consider in preparation of the EA and will contribute to the review of EA documentation by providing comments from their mandated areas of responsibility. Considering the Project components and the potential environmental effects, provincial and federal agencies are expected to participate in the EA to varying levels.

In addition, through the establishment of an EA Coordination Team, MFFN has and will continue to receive guidance from a select group of agencies including ENDM, MECP, MNRF and IAAC. This team will meet regularly throughout the EA process to provide updates, exchange information, consider opportunities and concerns, and to discuss opportunities to progress and improve the EA process.

11.4.2 Municipalities

Based on their proximity to the proposed CAR, The City of Thunder Bay and the Municipality of Greenstone will be included in the EA Consultation program.

11.4.3 Public and Stakeholders

An initial list of public and other stakeholders was developed based on discussions and Project development prior to the initiation of the provincial EA and during preparation of the ToR. Public stakeholders are individuals and groups who could have an interest in the Project, including but not limited to communities in the region, those with commercial interests (e.g., forestry, trappers, outfitters, other mineral tenure holders in the area) and recreational users or those with recreational interest (e.g., campers, hunters, and environmental groups). Many of the public and other stakeholder representatives within the area meet frequently (monthly) as part of the Geraldton Area Natural Resource Advisory Committee (GANRAC); this group has been and will continued to be engaged throughout the EA process.

11.5 Consultation Activities During the EA

Communication and engagement will be planned and executed to align with the Guiding Principles and consultation key elements introduced previously (**Section 10** and **Appendix B**), to provide interested persons, including MFFN community membership, neighbouring Indigenous communities and their membership, government organizations, and local and regional stakeholders, with opportunities to learn about and understand the Project, and to provide input to help identify potential effects and impact management measures.

Consultation and engagement efforts undertaken in the ToR phase will continue into the EA. Any feedback received during the ToR phase related to the consultation approach, activities, milestones and scheduling will also be taken into consideration during the EA.

The following EA milestones will help guide the timing and focus of consultation and engagement efforts:

- Notice of Commencement;
- Development of impact assessment/ routing evaluation criteria;
- Evaluation of routing alternatives;
- Identification of preferred alternative;
- Submission of Draft Environmental Assessment Report/ Impact Statement[6]; and
- Submission of Final Environmental Assessment Report/ Impact Statement.

The Draft EA Consultation Plan is provided in **Appendix B** and summarized in **Table 11-1**. A variety of communication and engagement tools will be used throughout the EA process to build positive, respectful relationships, share information with interested persons and obtain input on the Project. Input received through these activities, including how that input was considered in the EA, will be documented in the EA Record of Consultation.

6. The Impact Statement is pending federal EA requirement decision.

Table 11-1: Proposed Consultation Activities for the Environmental Assessment

Consultation Activity/ Tool	Indigenous Communities (including Marten Falls First Nation)	Public and Other Interested Persons	Government Agencies
Indigenous Communities			
Chief and Council and/ or Community Meetings, are expected with the most potentially interested / impacted communities, including MFFN. Three visits for each of these communities are anticipated, to introduce the Project and gather feedback throughout the EA. Communication materials will be developed to support these meetings including: presentation decks; display boards; and fact sheets. These will be plain-language and visually inviting. Community visits to other neighbouring Indigenous communities will be planned on request.	X		
Community Member Discussions, with select members of Indigenous communities (e.g., Leadership, land users hunters and trappers, youth, Elders) may be held to discuss the Project and obtain input. These discussions will be co-ordinated with data gathering needs for the EA.	X		
Topic-Specific Community Member Discussions, as an additional follow-up engagement activity for Indigenous community that would like to attend a focused conversation around a specific topic, for example Caribou. The meeting would be held in a central location that is easy for all interested groups to attend.	X		
MFFN Youth and Elder Meetings, will be timed with community visits to provide audience-specific information and gather input on the Project from these respected community members	X		
Social Media / Facebook will be leveraged to communicate more broadly with the MFFN community. Information related to Project notices and MFFN Community meetings will be posted to the community site(s).	X		
Community Consultation Co-ordinators, may be engaged to assist those communities with the highest potential for effects and Project interest (and therefore the highest level of engagement) coordinate in-community events, assist with Indigenous Knowledge programs and inform the MFFN Project Team of engagement requirements and cultural protocols.	X		
All Stakeholders			
Project Statutory Notices will be provided throughout the EA process at key milestones, via registered mail and email, and published in local newspapers and on the radio. Additional notices (e.g., Field Study notices) will be directed to appropriate audiences via email/ mail and posted on social media. All Project Statutory notices will also be mailed and emailed to individuals on the Contact List. Key milestones include: Notice of Commencement; invitations to PICs, Submission of the Draft EA Report and review period; Posting of the Final EA Report and review period.	X	X	X
Project Website (www.martenfallsaccessroad.ca), will provide ongoing access to information, employment opportunities and planned engagement activities, and will serve as a method to receive feedback and comments. The website will be updated through the EA to include all published information about the Project and be populated with Project updates at key Project milestones. Electronic versions of any newsletters / Project updates will also be available through the blog function of the website. The website will continue to be maintained and updated in a way that allows for users with low bandwidth and slow internet connection to access information.	X	X	X

Table 11-1: Proposed Consultation Activities for the Environmental Assessment

Consultation Activity/ Tool	Indigenous Communities (including Marten Falls First Nation)	Public and Other Interested Persons	Government Agencies
Project Hotline / Email Address, contact information (e.g., telephone number and email address) will be included on Project communication materials so that people know who to contact to solicit information or discuss Project activities and provide feedback.	X	X	X
Newsletters and Email Updates will be provided throughout the EA to keep people informed and up-to-date on Project progress; distribution will be scheduled around the timing of planned PICs / Off-Reserve Community Meetings. Each update will be distributed to MFFN community members, neighbouring Indigenous communities and persons who have expressed an interest in the Project. Newsletters will also be made available at the MFFN Band Office, on the website and through the electronic mailing list. Paper copies of newsletters can also be provided to interested communities or stakeholders, if requested.	X	X	X
Comment Forms / Questionnaires will be developed and used to gather feedback at PICs and community meetings.	X	X	X
Key Informant Interviews will be scheduled with select interested persons/ organizations (e.g., Geraldton Area Natural Resources Advisory Committee, business operators and resource users) to gather information regarding key issues and possible concerns. Presentations to key groups will be an important component of soliciting feedback for decision-making.	X	X	
Public Information Centres will be held at key Project milestones in Thunder Bay and in the Municipality of Greenstone on three (3) occasions. These events will serve to discuss the Project and obtain input from members of the public and other interested persons. PICs will be advertised in local newspapers, and through the Project Contact List and website.	X	X	X
Environmental Assessment Report / Impact Statement may be reviewed by the public and interested persons during public review periods. These documents will be made available on the Project website (www.martenfallsaccessroad.ca), will be posted at select locations and provided to Indigenous communities by mail, electronic copy and USB. Plain language and translated copies of the documents can be provided. Note: Impact Statement is pending federal EA requirement decision.	X	X	X

The approach to engagement through the EA will be is designed to provide flexibility and adaptability to evolving Project needs. As with any project, it is anticipated that there will be individuals, groups or other interested persons that may require additional consultation not reflected in this approach. In addition, communication and engagement tools will be regularly evaluated to ensure effectiveness and adjustments will be made as necessary to allow for the implementation of a robust and effective consultation program.

Details related to the proposed EA consultation activities, milestones and scheduling is provided in the *Draft Environmental Assessment Consultation Plan* (**Appendix B**).

11.6 Issue Resolution Strategy

Consultation is expected to bring to light issues that must be carefully addressed and considered in the EA process. Comments and input received throughout the EA will be documented and included in a Record of Consultation for the EA. Each issue or comment received will be considered and responded to by MFFN, and documented in the EA. If an issue persists, continued discussions, including face-to-face meetings, are proposed to explore potential

solutions. If resolution cannot be reached, mediation by a neutral, mutually acceptable third party will be considered. Issues that cannot be resolved will be noted along with documentation of attempts to resolve the issue.

11.7 EA Record of Consultation

For successful completion of the EA, it is essential that the consultation process be documented to appropriately categorize, and address feedback received. For reporting purposes, and to support the EA, a Record of Consultation will be developed to track all incoming and outgoing discussions, correspondence and public and stakeholder meetings along with notes on how questions and concerns were addressed. This Record, which will be provided as an appendix to the Individual EA, will provide an accurate account of all communication exchanged with neighbouring Indigenous communities and other interested persons during the EA.

12. Accommodating New Circumstances

The MECP Code of Practice (MECP 2019a) and subsection 6.1(1) of the EAA states that the EA for a proposed undertaking must be prepared in accordance with an approved ToR. However, complex undertakings may undergo changes that could prevent the commitments of the ToR from being met. As the ToR cannot be amended once approved, the MECP Code of Practice requires that flexibility be provided in the ToR to accommodate changes and / or unforeseen circumstances the may arise throughout the environmental planning process.

This ToR has been prepared using preliminary design, readily available information, and input received during consultation activities that took place prior to and during preparation of the ToR. It provides an accurate and realistic description of the proposed CAR known at the time of ToR preparation. However, the final design, location and scope is subject to change as more information becomes available throughout the environmental planning process as a result of the advancement of design, technical and environmental studies, feedback from consultation activities, and input received from government agencies during the preparation of the EA. The ToR allows for the EA to have minor changes from the approved ToR to accommodate these factors. Minor changes include, but are not limited to, modifications or variations to the consultation plan, proposed study areas and alternatives, refinement of evaluation criteria and need for additional studies.

To accommodate new changes and unforeseen circumstances, flexibility has been incorporated into this ToR, where appropriate. 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. The ToR does not provide flexibility for significant changes. Any significant changes from the ToR will be discussed with the MECP to identify whether additional requirements are necessary (e.g., preparation of a new ToR) before proceeding with the change.

13. Other Permits and Approvals

To facilitate the construction of the CAR, MFFN will need to acquire a number of permits and approvals from provincial, federal government and other jurisdictional agencies. A preliminary list of permits and approvals applicable or potentially applicable to the Project are detailed in **Table 13-1.** This list is based on preliminary design, and the final determination of permits and approvals that will be required will occur as the design is defined through the EA process.

Table 13-1: Potential Permits and Approvals for the proposed Project

Approval Authority	Permit / Approval / Authorization	Applicability to the Project
Provincial		
Ministry of Natural Resources and Forestry (MNRF)	Work Permit	▸ Work Permit under the *Public Lands Act, 1990* to authorize works on public lands and / or shore lands. Examples of works include geotechnical investigations, construction of roads and trails, and culverts / bridges. ▸ Consolidated Work Permit under the *Lakes and Rivers Improvement Act, 1990*, for work planned on shore land and within water bodies including work and burn authorization for clearing and burning of cleared vegetation.
	Land Use Permit	▸ Land Use Permit under the *Public Lands Act, 1990*, for rights to Crown land for construction of the CAR, and for construction access, temporary laydown and spoil areas.
	Forest Resource Licence (Cutting Permit)	▸ Forest Resource License (Cutting Permit) under the *Crown Forest Sustainability Act, 1994* to harvest and / or cut timber on Crown lands.
	Burning Permit (only required if a restricted fire zone is in place)	▸ Burning Permit under the *Forest Fires Prevention Act, 1990*, to enable burning of materials from forest clearing, if required.
	Aggregate Permit	▸ Aggregate Permit under the *Aggregate Resources Act, 1990*, to extract aggregate on all Crown Land and also on private land in areas of the province designated (identified) in the regulations.
	CBLUP Approvals	▸ ToR for MFFN to prepare a CBLUP has been approved. The CBLUP is under development.
	Licence to Collect Fish for Scientific Purposes	▸ Licence to Collect Fish for Scientific Purposes under the *Fish and Wildlife Conservation Act, 1997*, to facilitate capture and transfer of fish during in-water works, such as cofferdam construction or dewatering.
	Wildlife Scientific Collectors Permit	▸ Wildlife Scientific Collectors Permit under the *Fish and Wildlife Conservation Act, 1997*, to facilitate capture and transfer of wildlife from one site to another.
	Approval under the *Fish and Wildlife Conservation Act, 1997*	▸ Approval under the *Fish and Wildlife Conservation Act, 1997,* will likely be required as it is expected that Project activities such as clearing, grubbing, blasting, dewatering, and damming will result in the destruction of beaver dams, furbearer dens, black bear dens and / or bird nests and eggs.
	Research Authorization	▸ Authorization to conduct surveys within Provincial Parks.
	Permit / approval under the *Far North Act, 2010*	▸ A significant portion of the proposed Project is located in Far North Ontario. Permits / approvals under the *Far North Act, 2010* may be required depending on the type of development and stage of completion of the CBLUP.
	Approval under *Lakes and Rivers Improvement Act, 1990*	▸ Approval for water crossings, bridges, culverts and causeways.
	Approval and amendment under the *Provincial Parks and Conservation Reserves Act, 2006*	▸ Approval to cross provincial parks as per the *Provincial Parks and Conservation Reserves Act, 2006* ▸ Amendment to management direction for provincial parks and nature reserves under the *Provincial Parks and Conservation Reserves Act, 2006* ▸ Authorization to conduct research in Ontario protected areas for works required within a provincial park from the Park Superintendent
Ministry of the Environment, Conservation and Parks (MECP)	Approval	▸ Approval of this ToR and subsequent Individual EA under the *Ontario EAA*.
	Environmental Compliance Approvals for wastewater, waste, air and noise (if temporary camps are required)	▸ Environmental Compliance Approvals under the *Environmental Protection Act, 1990*, for the following activities: ▪ to transport waste by haulers from the Project work site; ▪ to enable emissions (e.g., air or noise) from on-site equipment; ▪ to facilitate stormwater management; and ▪ to facilitate temporary on-site sewage and water treatment facilities.
	Environmental Activity and Sector Registry or Permit to Take Water	▸ Permit to Take Water under the *Ontario Water Resources Act, 1990*, if the construction of the proposed Project requires taking greater than 50,000 litres of water in a day from a lake, stream, river or groundwater source (e.g., dewatering); or ▸ Registration of the water taking activity in the Environmental Activity and Sector Registry, if the water taking is less than 50,000 litres in a day from the sources identified above.
	Approval	▸ Approval under the *Health Protection and Promotion Act, 1990,* to facilitate provision of potable water, and on-site sewage treatment and disposal systems at temporary construction camp(s).
	Letter of Advice or Permit	▸ Letter of Advice or Permit under *Endangered Species Act* if the Project affects a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species.
Ministry of Transportation (MTO)	Various Permits	▸ Following permits may be required under the as per the *Public Transportation and Highway Improvement Act, 1990*: ▪ An Entrance Permit for proposed entrances onto provincial highways; ▪ An Encroachment Permit for any work within, under, or over a provincial highway ROW; ▪ A Sign Permit for all signage erected within 400 m of the limit of a provincial highway; and, ▪ A Land Use and Building Permit for construction occurring: o within 45 m of the ROW limit of any provincial highway, o within 180 m of the intersection of a side road and a “King’s” highway; or o within 395 m of a controlled access highway.
Ministry of Energy, Northern Development and Mines (ENDM)	Approval	▸ Potential for the proposed Project to obtain Minister approval under the *Mining Act, 1990* for the withdraw from prospecting, mining claim registration, sale and lease of lands, mining rights or surface rights that are the property of the Crown.
Ministry of Heritage, Sport, Tourism, and Culture Industries (MHSTCI)	Archaeological and Cultural Heritage clearances	▸ Archaeological Assessment(s) to be completed as part of the EA under the *Ontario Heritage Act, 1990,* and submitted to the Ontario Public Register of Archaeological Reports. Built Heritage and Cultural Heritage Landscape screening and, Heritage Impact Assessments, where required, submitted to the Ministry of Tourism, Culture and Sport (MTCS) for review under the *EAA*.
Ministry of Municipal Affairs and Housing	Letters of Conformity or Zoning Conformity Permits	▸ Potential for the proposed Project to be located in unorganized territory. Letters of Conformity or Zoning Conformity Permits required for areas located in unorganized territories.
Ministry of Labour	Notice of Project	▸ Filing of a notice of Project prior to construction under *Occupational Health and Safety At, 1990*.

Table 13-1: Potential Permits and Approvals for the proposed Project

Approval Authority	Permit / Approval / Authorization	Applicability to the Project
Federal		
Canadian Environmental Assessment Agency	Determination	▸ Canadian Environmental Assessment Agency (now Impact Assessment Agency of Canada to determine if the proposed Project will require a federal EA under the *Impact Assessment Act*, 2019 since the CAR is a designated project under the Act, or if the provincial EA process is considered sufficient under the Canada-Ontario Agreement on Environmental Assessment Co-operation.
Environment and Climate Change Canada	Permit	▸ Permit under *Species at Risk Act, 2002,* if the proposed Project activities will occur on federal lands (including First Nations reserve lands) and will destroy or remove a SAR listed under the *Species at Risk Act, 2002* or its habitat.
Fisheries and Oceans Canada	Authorization	▸ Authorization under section 35 of the *Fisheries Act, 1985* for any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery. Serious harm to fish is the death of fish or any permanent alteration to, or destruction of, fish habitat.
	Permit or Letter of Advice	▸ Permit or Letter of Advice under the *Species at Risk Act, 2002*, to authorize an activity affecting a species listed under Schedule 1 of the *Species at Risk Act*, if it is on federal lands or if an activity is not on federal lands will affect an aquatic species listed under Schedule 1 of the *Species at Risk Act, 2002*.
	Leases or crossing agreements	▸ Leases or crossing agreements for roads, railways, or canals under the *Federal Real Property and Federal Immovables Act, 1991*
Indigenous and Northern Affairs Canada	Land Use Permit	▸ Land use permit or equivalent under section 28(2) of the *Indian Act, 1985* to use federal lands (i.e., to allow the crossing of First Nation reserves).
Natural Resources Canada	Permit	▸ Permit under the *Explosives Act, 1985* for the use, storage or transportation of explosives.
Other		
Hydro One Networks Inc.	Permit to cross Hydro One transmission lines	▸ Permit to cross existing transmission lines, if required.
Local Municipalities	Various Permits	▸ Building Permit per the *Building Code Act*, 1992 ▸ Permit to Injure or Remove Trees (woodlands / woodlots), as applicable based on municipal by-laws ▸ Noise By-law exemptions, as applicable, based on proposed work and municipal by-laws ▸ Conformance with local land use policy and zoning (e.g., Official Plan amendments and Site Plan Control Approval in accordance with the *Planning Act, 1990*). ▸ Permits for open-air burning and fires, as applicable.
Canadian Pacific Railway	Clearance Letter	▸ Clearance Letter for crossing of Canadian Pacific Railway rail line, if required.
Mining Claim and Crown Interest Holders	Consent	▸ Consent from existing claim holders under the *Mining Act, 1990*.
Thunder Bay District Health Unit	Notice of Camp Opening under the *Health and Promotion Act, 1990*	▸ Notice of Camp Opening under the *Health and Promotion Act, 1990*
	Permit for sewage holding tank under the *Building Code Act, 1992*.	▸ Permit for sewage holding tank at construction camps under the *Building Code Act, 1992*.
Other Utility Companies	Permit to cross other utilities	▸ Permit to cross other utilities (e.g., existing pipelines, fibre optics).

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Appendix A

Draft Criteria & Indicators for Alternatives Evaluation

Environmental Discipline	Criteria	Indicator	Potential Data Sources
Natural (Physical and Biophysical) Environment			
Atmospheric Environment	▪ Air Quality	▪ NO_x ▪ CO ▪ SO ▪ TSP ▪ PM_{10} ▪ $PM_{2.5}$ ▪ Selected VOCs	▪ Field investigations ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Ontario Ministry of the Environment, Conservation and Parks (MECP) Regulation 419/05 ▪ Canadian Ambient Air Quality Standards (CAAQS)
	▪ GHG Emissions	▪ CO_2, CH_4, N_2O	
Acoustic Environment	Noise	▪ Noise Levels	▪ Field investigations ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Guidance for Evaluating Health Impacts in Environmental Assessment: Noise (Health Canada) ▪ "Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning" (MOECC, 2013)
	Vibrations	▪ Vibration Levels	
Physiography, Geology, Terrain and Soils	Local Geology, Terrain and Soils	▪ Bedrock ▪ Terrain and Topography ▪ Natural hazards ▪ Soil quality	▪ Field investigations ▪ Data from previous environmental assessments ▪ Data from government agencies (e.g., Ontario Geological Survey)
Surface Water	Surface Water	▪ Surface Water Quality	▪ Field investigations ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Ontario Integrated Hydrology Data ▪ Land Information Ontario ▪ Natural Heritage Information Centre (MNRF, 2019) ▪ Ontario Flow Assessment Tool Version 3 (OFAT III) ▪ Hydrometric data from Water Survey of Canada and MECP, or from Ontario Hydro ▪ Archived water quality data from the MECP Provincial (Stream) Water Quality Monitoring Network ▪ MECP Source Protection Information Atlas ▪ Archived water taking data from the MECP Permits to Take Water Database ▪ MECP Water Well Inventory
		▪ Surface Water Quantity	
Ground Water	Ground Water	▪ Ground Water Quantity	
		▪ Ground Water Quality	
Vegetation	Wetland Ecosystems	▪ Availability ▪ Distribution ▪ Function and Composition	▪ Field investigations ▪ Ecological Land Classification of vegetation communities ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Atlas of the Mammals of Ontario (Dobbyn, 1994) ▪ Natural Heritage Information Centre (MNRF, 2019) ▪ iNaturalist ▪ Forest Management Plans & Inventory Mapping ▪ Far North Mapping ▪ Crown Land Use Policy Atlas ▪ Land Information Ontario ▪ MECP Species at Risk Range Maps
	Upland Ecosystems	▪ Availability ▪ Distribution ▪ Function and Composition	
	Designated Areas (ANSIs [Areas of Natural and Scientific Interest], Critical Landform/ Vegetation Associations [CLVAs])	▪ Availability ▪ Distribution ▪ Function and Composition	

Environmental Discipline	Criteria	Indicator	Potential Data Sources
Wildlife	Breeding Birds (including SAR-olive-sided flycatcher, rusty blackbird and common nighthawk) Bats (including SAR-Little Brown Myotis and Northern Myotis) Fur Bearers (American Marten and SAR Wolverine) Raptors (including SAR-bald eagle) Amphibians and Reptiles	▪ Habitat availability ▪ Habitat distribution ▪ Survival and Reproduction (Population state)	▪ Field investigations ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Atlas of the Mammals of Ontario (Dobbyn, 1994) ▪ Natural Heritage Information Centre (MNRF, 2019) ▪ Ontario Breeding Bird Atlas (Bird Studies Canada et al., 2006) ▪ Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019) ▪ eBird ▪ iNaturalist ▪ Bat Species Range Mapping (Bat Conservation International, 2019) ▪ Forest Management Plans & Inventory Mapping ▪ Far North Mapping ▪ Crown Land Use Policy Atlas ▪ Land Information Ontario ▪ MECP Species at Risk Range Maps
Ungulates	Moose	▪ Habitat Availability ▪ Habitat Distribution ▪ Species Population	▪ Forest Management Plans & Inventory Mapping ▪ Far North Mapping ▪ Crown Land Use Policy Atlas ▪ Land Information Ontario ▪ MECP Species at Risk Range Maps ▪ Provincial Best Management Practices
	Caribou	▪ Habitat Availability ▪ Habitat Distribution ▪ Species Population ▪ Spatial extent and distribution of category 1, 2 and 3 habitats ▪ Relative significance of sub-range habitat features ▪ Cumulative range disturbance ▪ Relative tolerance of the range to alteration/risk ▪ Consideration of the density of linear and non-linear disturbances ▪ Direct and indirect impacts of the project on individuals	
Fish and Fish Habitat	Lake Sturgeon Walleye Brook Trout Northern Pike Lake Whitefish	▪ Habitat Quantity and Quality ▪ Habitat Distribution and Connectivity ▪ Survival and Reproduction	▪ Field investigations ▪ Indigenous Knowledge ▪ Data from previous environmental assessments ▪ Natural Heritage Information Centre rare species records and Make a Map: Natural Heritage Areas application (MNRF, 2019) ▪ Fisheries and Oceans Canada (DFO) Aquatic Species at Risk Maps ▪ iNaturalist ▪ Forest Management Plans & Inventory Mapping ▪ Far North Mapping ▪ Crown Land Use Policy Atlas ▪ Land Information Ontario ▪ MECP Species at Risk Range Maps ▪ Ontario Ministry of Natural Resources and Forestry (MNRF) Fish Online

Environmental Discipline	Criteria	Indicator	Potential Data Sources
Indigenous Knowledge			
Indigenous Knowledge and Land Use[1]	Traditional Use of Land and Resources and Aboriginal and Treaty Rights	▪ Value of animal harvesting areas / sites to Indigenous people: ▪ Value of plant harvesting areas / sites to Indigenous people ▪ Number and value of waterbody features used to harvest fish ▪ Number of habitation sites (cabins / camps / village / trading posts) ▪ Number of trap line crossings ▪ Number and value of travel routes (trail / canoe / walking)	▪ Existing Indigenous Knowledge data that is shared with Marten Falls First Nation (MFFN) ▪ Community Based Land Use Planning initiatives ▪ Indigenous Knowledge data collected through the Project-specific Indigenous Knowledge Studies ▪ Previous land claims (historic and outstanding)
	Cultural/Spiritual Areas and Sites (Indigenous)	Number and significance of culturally sensitive sites and areas: ▪ Ceremonial Sites ▪ Graves ▪ Sacred Sites ▪ Gathering Areas ▪ Spiritual Sites ▪ Points of Interest ▪ Worship Areas	
	Indigenous Landscape	▪ Number and significance of Place Names1 ▪ Number of Orientation Points2 ▪ Number of important ecological areas (e.g., moose calving area) ▪ Number and significance of shared areas (i.e., territorial overlap)	
	Reserve Land	▪ Reserve Land other than MFFN	▪ Canada Lands Survey
	Land Claims	▪ Indigenous Land Claims	▪ Provincial: Negotiations Branch Ministry of Indigenous Affairs ▪ Federal: Crown–Indigenous Relations and Northern Affairs Canada
Socio-Economic and Built Environment			
Social	Housing and Accommodation	▪ Housing demand ▪ Housing supply	▪ Statistics Canada data on housing ▪ Municipal, provincial and Indigenous government websites ▪ Municipal plans and reports ▪ Provincial plans and reports
	Community Services and Infrastructure	▪ Demand for services and infrastructure	▪ Municipal, provincial and Indigenous government websites (e.g., Ministry of Transportation Ontario (MTO) traffic counts) ▪ Municipal plans and reports ▪ Provincial plans and reports ▪ Local service providers (e.g., Airports) ▪ Industry reports ▪ Previous Environmental Assessments
	Transportation	▪ Road transportation network use ▪ Air transportation use	

1. *Place names are representative of shared local and cultural knowledge based on experiential and physical interaction with a specific place, thus they are tied to traditional land uses. Significance may be related to the nature of the place name and the oral traditions within which it is rooted.*
2. *Orientation points or markers are features that may be used to guide traditional land users when out on the land and serve an important function in traditional land use.*

Environmental Discipline	Criteria	Indicator	Potential Data Sources
	Community Well-being	▪ Nuisance (e.g., noise, vibrations)	▪ Other Environmental Assessment studies
		▪ Community satisfaction ▪ Community cohesiveness ▪ Family and social ties ▪ Perceived safety and security	▪ Primary data ▪ Statistics Canada well-being index ▪ Non-Government Organization and Interest groups on community well-being ▪ Municipal, provincial and Indigenous government websites ▪ Municipal plans and reports ▪ Provincial plans and reports ▪ Local service providers
Economy	Regional Economy	▪ Economic opportunity ▪ Procurement opportunities ▪ Price of goods	▪ Statistics Canada on economic sectors ▪ Municipal, provincial and Indigenous government websites ▪ Municipal plans and reports on economic development ▪ Provincial plans and reports on regional sector development ▪ Local service providers such as infrastructure and utility providers ▪ Regional economic development reports; ▪ Regional tourism reports ▪ Industry report (e.g., mining and forestry) ▪ Previous Environmental Assessments
	Labour Force and Employment	▪ Employment	▪ Statistics Canada labour force and employment data ▪ Municipal, provincial and Indigenous government websites ▪ Municipal plans and reports on labour gaps and markets ▪ Provincial plans and reports on labour gaps and markets ▪ Industry reports ▪ Previous Environmental Assessments
	Government Finances	▪ Expenditure ▪ Revenue	▪ Municipal and Indigenous community financial statements ▪ Provincial plans and reports
Land and Resource Use	Land Use Compatibility	▪ Compatibility with existing land uses	▪ Primary data ▪ Spatial data on existing planned land uses ▪ Land use plans (municipal, provincial and federal) ▪ Community-based land use planning
	Parks and Protected Areas	▪ Natural, cultural and recreational values	▪ Primary data ▪ First Nation government information ▪ Spatial Data on the land used for protected areas ▪ Provincial reports and plans (e.g., Park management documents) ▪ Community-based land use planning
	Extractive Industry	▪ Land use and access	▪ Primary data ▪ First Nation government information ▪ Spatial Data on existing mining and aggregate areas ▪ Municipal reports and plans ▪ Provincial reports and plans ▪ Community land use planning ▪ Regional industry sector reports ▪ Non-Government Organization and academic reports

Environmental Discipline	Criteria	Indicator	Potential Data Sources
	Forestry Industry	▪ Land use and access ▪ Disruption	▪ Primary data ▪ First Nation government information ▪ Spatial Data on forestry areas and facilities ▪ Provincial reports and plans (e.g., Forestry management plans) ▪ Community land use planning ▪ Forestry Management Plans
	Energy and Linear Infrastructure	▪ Land use and access	▪ Primary data ▪ First Nation government information ▪ Spatial Data on utilities and other infrastructure or potential energy sites ▪ Municipal reports and plans ▪ Provincial reports and plans on energy requirements or projects ▪ Community land use planning ▪ Regional industry sector reports (e.g., Independent Electricity System Operator reports) ▪ Non-Government Organization and academic reports
Recreation and Tourism	Recreation and Tourism	▪ Land use and access ▪ Environmental conditions ▪ Resource availability	▪ Primary data ▪ First Nation government information ▪ Spatial Data including recreation and access points and polygons ▪ Provincial reports and plans on tourism such as Ontario Ministry of Tourism Culture and Sport (MTCS) data ▪ Community-based land use planning ▪ Other impact assessments such as air quality, noise, surface water, wildlife, fish and fish habitat and vegetation and wildlife
Human Health	Personal Safety	▪ Project-related accidents ▪ Vehicular Accidents ▪ Violence and harassment	▪ Primary data ▪ Non-Government Organization and Interest group reports ▪ Municipal, provincial and Indigenous government websites ▪ Provincial traffic volumes and data
	Health	▪ Health services ▪ Substance abuse	▪ Primary data ▪ Statistics Canada ▪ Non-Government Organization and Interest group reports ▪ Municipal, provincial and Indigenous government websites and reports ▪ Local service providers
	Diet	▪ Food consumption	▪ Primary data ▪ Economic Assessment
	Environmental Factors Influencing Health	▪ Air quality ▪ Noise ▪ Surface water quality	▪ Air Quality Assessment ▪ Noise Assessment ▪ Surface Water Assessment
Visual Aesthetics	Visual Character	▪ Visibility of the Project from sensitive locations	▪ Primary data ▪ First Nation government information ▪ Spatial Data ▪ Provincial reports and plans; and, ▪ Community-based land use planning

Environmental Discipline	Criteria	Indicator	Potential Data Sources
Cultural Environment			
Cultural Heritage Resources	Cultural Heritage Landscapes	▪ Areas of importance to local communities ▪ Areas of Historical Significance ▪ Culturally Important Landscape Features ▪ Areas of Religious or Spiritual Significance	▪ Indigenous Knowledge ▪ Recent and historical maps of the study area
	Archaeological Resources	▪ Burial Sites ▪ Historical Villages ▪ Areas of Cultural Significance ▪ Registered archaeological sites ▪ Areas of importance to local communities ▪ Areas of Historical Significance	▪ Recent and historical maps of the study area ▪ Reports of previous Archaeological Assessments in proximity to the study area ▪ The MTCS's Ontario Archaeological Sites Database (OASD) for a listing of registered archaeological sites within a 50 km radius of the study area ▪ Existing Indigenous Knowledge data that is shared with MFFN ▪ Community Based Land Use Planning initiatives ▪ Indigenous Knowledge data collected through the Project-specific Indigenous Knowledge Studies ▪ Field investigations

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Appendix B

Draft Environmental Assessment Consultation Plan

DRAFT

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Marten Falls First Nation

Draft Environmental Assessment Consultation Plan

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List of Acronyms and Abbreviations

CBLUP ..... Community Based Land Use Plan
IAAC ..... Impact Assessment Agency of Canada
EA ..... Environmental Assessment
EAA ..... *Environmental Assessment Act*
ENDM ..... Ministry of Energy, Northern Development and Mines
GANRAC ..... Geraldton Area Natural Resource Advisory Committee
IK ..... Indigenous Knowledge
km ..... Kilometres
MECP ..... Ministry of Environment, Conservation and Parks
MFFN ..... Marten Falls First Nation
MNRF ..... Ministry of Natural Resources and Forestry
MOU ..... Memorandum of Understanding
MHSTCI ..... Ministry of Heritage, Sport, Tourism, and Culture Industries
MTO ..... Ministry of Transportation
PIC ..... Public Information Centre
PTO ..... Provincial Territorial Organization
ToR ..... Terms of Reference

1. Introduction

1.1 Background and Project Overview

Marten Falls First Nation (MFFN; the community) is a remote First Nation community in northern Ontario, located at the junction of the Albany and Ogoki rivers (**Figure 1-1**). MFFN is currently accessible year-round by air transportation out of Thunder Bay and Nakina and by a winter access road constructed on an annual basis, if conditions permit. Neither mode of transportation to the community is ideal. MFFN's winter access road is not reliable and is typically only useable about six to eight weeks annually between February and March, making transportation of goods and people difficult. The alternative means of transportation (i.e., air) is expensive for community members. Given the unreliability of the winter road and the expense of air travel, an all-season access road connecting MFFN to the existing provincial highway network is needed to improve the well-being of the community. MFFN has started a Provincial Environmental Assessment (EA) and Preliminary Design Study to assess the potential impacts and benefits related to the proposed Community Access Road.

Since the 1990s, MFFN has received provincial funding to maintain 140 km of winter road to the community. In addition, MFFN has received provincial funding since 2014 to maintain 79 km of the Anaconda and Painter Lake Road systems which connect the winter road to the provincial highway system.

In 2009, MFFN was successful in acquiring funds from the Northern Ontario Heritage Fund Corporation to complete the 2011 MFFN Winter Road Realignment / All Weather Road Project, Feasibility Analysis and Business Plan Report (W. L. Lees & Associates and Marten Falls Logistics-LP. 2011; MFFN 2017). This report built on previous studies and was used by MFFN to guide discussions with government, industry and adjacent First Nations on improving community access to MFFN. In 2016, the Ministry of Northern Development and Mines (now the Ministry of Energy, Northern Development and Mines [ENDM]) confirmed financial support (MFFN 2017) and Indigenous and Northern Affairs Canada (now Indigenous Services Canada, and Crown-Indigenous Relations and Northern Affairs Canada) provided financial support under the Building Canada Fund for work related to realignment of the winter road to higher ground.

In April 2018, MFFN signed a voluntary agreement with the Ministry of Environment, Conservation and Parks (MECP) to prepare an Individual Environmental Assessment (EA). As the proponent, MFFN has determined that the planning and EA process for the proposed all-season access road will follow a community-led approach, meaning the MFFN community helps to develop solutions and advance decisions about the Community Access Road. MFFN, as the proponent or owner of the Project, has formed a Project Team that includes MFFN members and acts with input, guidance and direction from the MFFN Chief and Council, MFFN Community Member Advisors and MFFN membership. MFFN will also undertake consultation with government agencies, the public, industry, non-government organization, local and regional stakeholders, and with neighbouring Indigenous communities to allow for an EA process that carefully addresses traditions, Indigenous Knowledge and land use.

Although not a requirement of the provincial EA process, MFFN has voluntarily chosen to provide a Draft ToR for review by Indigenous communities, agencies and the public. The Draft ToR was prepared in accordance with the *Environmental Assessment Act* (EAA) and the *Code of Practice for Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (Code of Practice; MECP 2019a). The proposed ToR will be submitted to the Minister of MECP for review and approval based on feedback provided on the Draft ToR.

Marten Falls 65
Aroland First Nations
Gander River
Muswabik River
Wabimeig Creek
Albany River
Wabimeig Lake
Charo River
Gourlie Creek
Eabamet Lake
ALBANY RIVER PROVINCIAL PARK
Makokibatan Lake
Dark River
Ruby Creek
Calbert Creek
Komushikoba River
Jenner Creek
OGOKI RIVER PROVINCIAL PARK (WATERWAY CLASS)
Ogoki Lake
Reckett Creek
Colpitts Creek
La Rose Creek
Britt Creek
Little Current River
LITTLE CURRENT RIVER PROVINCIAL PARK
Brace Creek
Chaucer Creek
Runway Creek
Papoose Creek
Ara Lake
Meta Lake
Abamasagi Lake
OGOKI RD
O'Sullivan Lake
Blob Creek
Deeds Creek
Hanover River
Esnagami Lake
Wilgar Creek
Johnson Creek
Wababimiga River
Drowning River
Netveton Creek
Singing River
643
584
Nakina

Ontario Index Map
Fort Severn
Manitoba
Attawapiskat
Ontario
Marten Falls First Nation
Fort Albany
Moosonee
Quebec
Sioux Lookout
Kenora
Nakina
Geraldton
Hearst
Kapuskasing
Atikokan
Thunder Bay
Timmins
Sault Ste. Marie
Sudbury
North Bay
Ottawa
USA
Owen Sound
Toronto
Hamilton
London
Windsor
Project Location

Key Map
Windsor Lake
Fort Hope 64
Marten Falls 65
Aroland First Nations
Nakina
Armstrong
Lake Nipigon
Geraldton
Hornepayne
Manitouwadge
Dog Lake
Kabinakagami Lake
Lake Superior
11
17
Map Location

Legend

- Highway
- Local Road
- Resource / Recreation Road
- Railway
- Existing Winter Access Road
- Painter Lake Road
- Provincial Park
- Waterbody
- Wetlands
- Woodlands
- First Nation Reserve
- Far North Boundary
- District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Project Location

0 5 10 20 30
Kilometres
Datum: NAD 1983 UTM Zone 16N

Nov, 2019	1:600,000 *when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

AECOM

Figure 1-1

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1.2 About This Consultation Plan

This Consultation Plan outlines the engagement and consultation activities that are planned to occur during the preparation of the EA. In accordance with The Code of Practice (MECP 2019a), this document:

- Outlines the methods that will be used to consult with interested persons during preparation of the EA;
- Describes how input will be obtained;
- Identifies key milestones when consultation will occur;
- Provides an issues resolution strategy; and
- Provide a strategy for monitoring and evaluating the effectiveness of communication and consultation efforts through the EA process.

The EA Consultation Plan is draft and subject to revision based on input received on the Draft ToR and future engagement during the preparation of the EA, including input from Indigenous communities, government agencies, the public and other stakeholders.

The *Marten Falls First Nation Community Access Road Supporting Document – Draft Terms of Reference Record of Consultation* (AECOM 2019) has been prepared to summarize consultation and engagement activities during the preparation of the ToR and will be updated throughout the EA process.

1.3 The Proponent

The proponent of the proposed Project is Marten Falls First Nation (MFFN), a remote Indigenous community in northern Ontario located at the junction of the Albany and Ogoki rivers, approximately 430 km from Thunder Bay, Ontario. MFFN will design and permit the proposed Community Access Road, while options for road ownership, maintenance activities and liability are being considered in discussion with the Province.

1.3.1 Community-Led Process

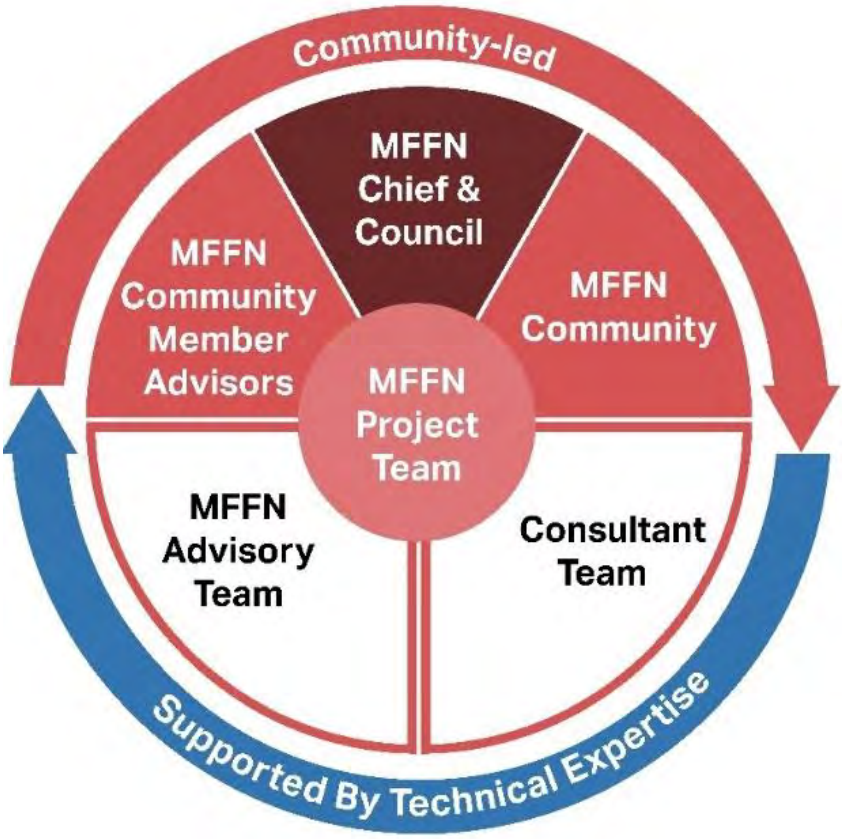
The planning of the Project is community-led; meaning MFFN community membership will help develop solutions and advance decisions on the Community Access Road. MFFN, as the Proponent or owner of the Project, has formed a Project Team that includes MFFN community members. The Project Team acts with guidance, direction and input from MFFN Chief and Council, MFFN Community Member Advisers and MFFN community membership to:

- Effectively manage the Project so as to meet the requirements of the EA process;
- Keep MFFN community membership, as the proponent, up-to-date of plans and progress, and to gather direction and input to enable decisions related to the Community Access Road; and
- Consult and engage members of MFFN and neighbourhood Indigenous communities.

For MFFN community membership, given they are the owners of the Project, there are two distinct roles: 1) involvement in the community-led process as proponent of the Project; and 2) an Indigenous community potentially affected by the Project.

Figure 1-2 depicts the structure of the community-led process established to guide the Project through the EA process.

Figure 1-2: Community-led Process



1.4 Importance of Consultation

Consultation and engagement are significant components of any project and are a means to gather input into the decision-making process. The most meaningful engagement occurs when individuals have input on how they want to be engaged, and this plan provides the framework to create unique and flexible approaches and activities that can be tailored to the needs of Indigenous communities, government agencies, municipalities, the public and other stakeholders.

This Consultation Plan, has been designed to meet consultation requirements outlined in section 5.1 of the EAA, the *Code of Practice for Consultation in Ontario's Environmental Assessment Process* (MECP 2014a) and *Code of Practice on Preparing and Reviewing Environmental Assessments in Ontario* (MECP 2014b). The *Draft Guidelines for Consultation with Indigenous Peoples related to Aboriginal Rights and Treaty Rights (Government of Ontario 2019c)* and the *Nishnawbe Aski Nation Handbook on Consultation in Natural Resource Development* (Nishnawbe Aski Nation 2007) were also used for guidance where appropriate.

The overall purpose of this Consultation Plan is to:

- Outline how MFFN (as the proponent) will consult with MFFN community members, neighbouring Indigenous communities, members of the public, government agencies and other stakeholders;
- Describe how key information will be shared and how input will be obtained, addressed and considered;
- Identify key milestones, timing, targeted input and key consultation questions;
- Provide an issues resolution strategy; and
- Provide a strategy for monitoring and evaluating the effectiveness of communication and consultation efforts through the EA process.

Neighbouring Indigenous Communities:

The Ontario Ministry of the Environment, Conservation and Parks (MECP) and Impact Assessment Agency of Canada (IAAC) identified the First Nations, Métis and Traditional Land-Based Rights Holders who may be interested in the MFFN Community Access Road and should be consulted with as part of the EA. The term 'neighbouring' is used to identify any Indigenous community being engaged with respect to the Project.

Input received to date from interested persons, including MFFN community members, neighbouring Indigenous communities and their membership, government agencies, the public, industry, non-government organizations, and local and regional stakeholders has helped shape the planned approach to consultation proposed during the EA. The approach described in this document will evolve as time progresses. This Consultation Plan is included in the Draft Terms of Reference (ToR) and interested persons are encouraged to provide feedback for the next version, to be included in the Proposed ToR. This Plan will also be revisited regularly throughout the EA process, and should updates be required they will be provided as addendums.

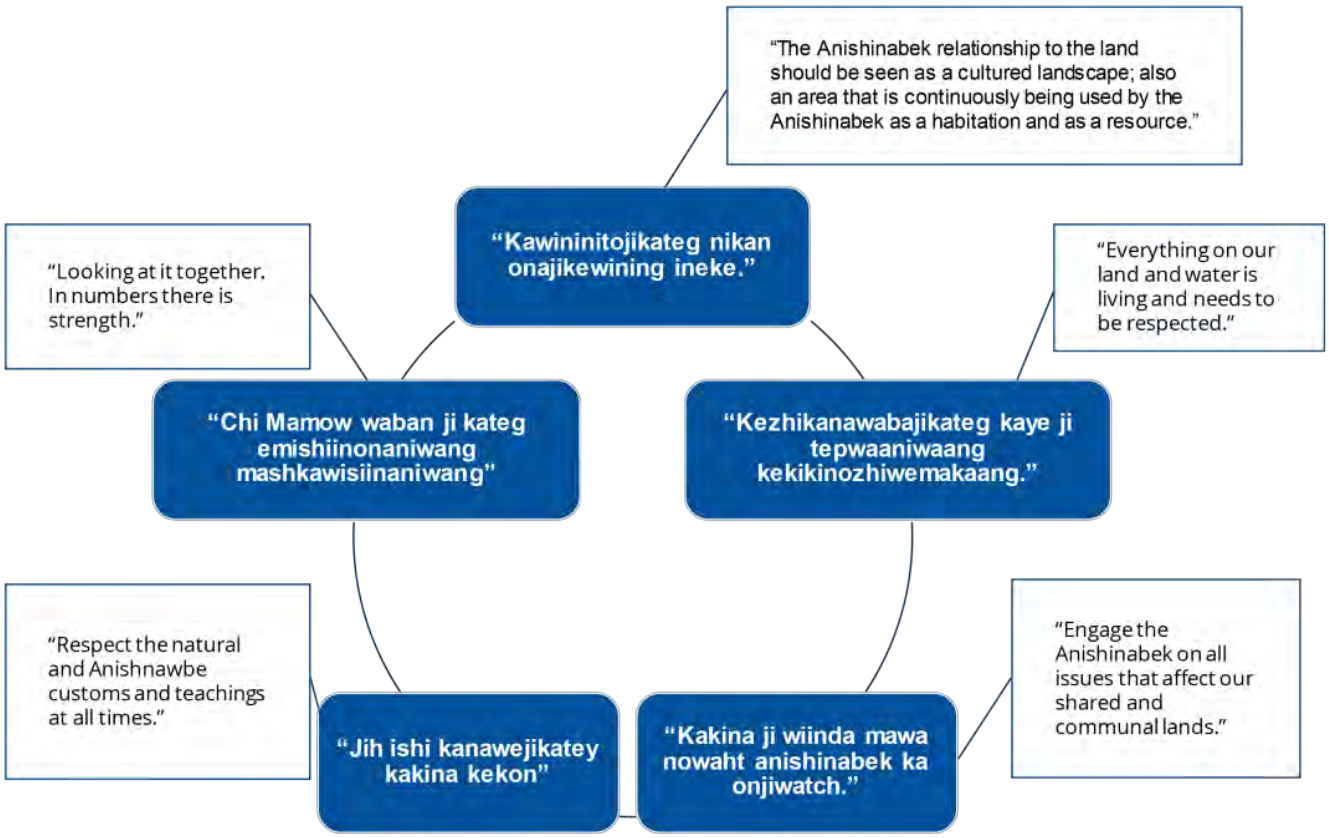
2. Principles and Approach

2.1 Principles of Consultation

A primary objective of the EA process is to effectively communicate information about the proposed Community Access Road, and to consult with those who may be potentially affected by or have an interest in it. MFFN is committed to creating and sustaining constructive dialogue and relationships with interested persons, including MFFN community membership, neighbouring Indigenous communities and their memberships, government agencies, the public, industry, non-government organizations, and local and regional stakeholders, to support the environmental, social and economic sustainability of the proposed Community Access Road.

To honour the traditional lands that the MFFN Community Access Road is proposed to be developed on and to respect MFFN traditional teachings[1], the Guiding Principles presented in **Figure 2-1** will be followed throughout all Project-related consultation activities and the full EA process; from preparation of the ToR to preparation of the EA and implementation of the MFFN Community Access Road. These principles have been endorsed by the MFFN Chief and Council.

Figure 2-1: Guiding Principles



1. *Guiding Principles of the Marten Falls First Nation Community-Based Land Use Planning Team for Project Planning and Engagement.*

The Guiding Principles will be put into action by providing meaningful opportunities for input throughout the EA process, and by:

- Ensuring early and ongoing communication and dialogue throughout the EA process with interested persons, including MFFN community membership, neighbouring Indigenous communities and their memberships, and other interested persons;
- Working with Indigenous communities to confirm existence of, align with and respect protocols and policies for Indigenous Knowledge (IK) and / or consultation, and to customize communication plans to meet community needs;
- Delivering Project-related information in a timely and culturally sensitive manner, using plain language, translations (i.e., Oji-Cree, as needed) and visual aids to enable understanding;
- Facilitating multiple and ongoing opportunities for dialogue and conversations, and encouraging participation of all age groups, from youth to elders;
- Providing sensitivity to cultural practices, events and activities of Indigenous communities and considering these when planning and scheduling events;
- Facilitating an understanding of both the Indigenous Knowledge and western science and engineering principles that form the basis of the EA process;
- Providing interested persons, including potentially affected Indigenous communities, the opportunity to record their concerns, questions and opinions on potential effects and mitigation strategies, and their knowledge of the local environment; and
- Demonstrating how feedback was considered and / or incorporated into decision making.

2.2 Nishnawbe Aski Nation Consultation Policy

In addition to the Guiding Principles, the *Nishnawbe Aski Nation's Consultation Policy*, as outlined in *A Handbook on Consultation in Natural Resource Development* (2007), will be used to guide consultation and engagement efforts. This document includes a plan for meaningful consultation between a proponent (MFFN), Indigenous communities and government, particularly on projects or decisions that have a potential to impact Aboriginal and Treaty Rights.

The key elements for meaningful consultation referenced in the Nishnawbe Aski Nation's Consultation Policy include:

- A continuous process;
- Exchanging information;
- Building relationships;
- Getting feedback on the understanding and adequacy of information, and exchanging more information if required;
- Identifying issues;
- Accommodation and reconciliation;
- Fairness; and
- Negotiating with the right attitude.

Consultation protocols of individual communities (should they be available) will also be considered.

2.3 Duty to Consult

Aboriginal and Treaty Rights are guaranteed under section 35 of the *Constitution Act*, which includes recognition of existing Indigenous and Treaty Rights to hunt, trap, fish, gather and manage the lands for all First Nation, Inuit and Métis people of Canada. As part of these rights, the Government of Canada has the Duty to Consult Indigenous communities for this Project.

The MECP (in a letter dated December 19, 2018) identified 22 neighbouring Indigenous communities to be consulted with on the basis that they have or may have constitutionally protected Aboriginal or Treaty Rights that may be impacted by the proposed Project, or that they may be interested in the Project. The Impact Assessment Agency of Canada (IAAC) in their 'Preliminary List of Indigenous Communities for Proponent Engagement on the Martin Falls Access Road' also identified neighbouring Indigenous communities the Project should consult with; their list of 15 communities included all communities identified by the MECP plus one additional community, Mishkeegogamang First Nation. MFFN is determining how best to engage with Mishkeegogamang First Nation through the ToR process and will provide further details in the EA Consultation Plan included with the Proposed ToR.

The Province of Ontario (MECP and ENDM) has delegated some procedural aspects of Ontario's Duty to Consult to MFFN (the proponent) and is currently working with MFFN to develop a Memorandum of Understanding (MOU) to set out how these responsibilities will be shared through the EA process. This MOU will define the roles and responsibilities of both parties regarding the engagement of interested Indigenous communities.

3. Indigenous Communities and Stakeholder Identification

3.1 Identification of Indigenous Communities

The Project is located within James Bay Treaty–Treaty No. 9 (made in 1905 and 1930) and adhesions made in 1929 and 1930 area. Within the proposed Project area, the Tribal Councils and Provincial Territorial Organizations (PTOs) who may have interests include: Matawa First Nations Management, Mushkegowuk Council, and Shibogama Tribal Council. In addition, Nokiiwin Tribal Council and Nishnawbe Aski Nation (PTO) have been identified as potentially having interest in the Project. MFFN is a member of the Matawa First Nations Management.

Aligning with its Guiding Principles and to help guide the Project, MFFN initiated early and ongoing communication and dialogue with neighbouring Indigenous communities prior to the commencement of this EA process. In December 2018, MFFN extended those engagement efforts and is currently engaging with the Indigenous communities identified to-date by the MECP and IAAC; MFFN will continue to do so throughout the EA at the level of interest expressed by each community. MFFN will also work with communities to collect Indigenous Knowledge, regarding traditional land and resource use and cultural practices, for incorporating into the EA. The EA will include community sharing land use information from communities with a Community-Based Land Use Plan (CBLUP), either registered through the Province of Ontario or not.

Listed below in **Table 3-1** are, according to the MECP (in a letter dated December 2018), the neighbouring Indigenous communities who should be consulted on the basis that they have/ may have constitutionally protected Aboriginal or Treaty Rights that may be impacted by the Community Access Road, or who may be interested in the Project (i.e., communities depicted with an asterisk (*) in the below table).

Table 3-1: Identified Indigenous Communities, including their Provincial Territorial Organizations and/ or Tribal Council Affiliations

Tribal Council Affiliation	Community or Organization	
Matawa First Nations (Nishnawbe Aski Nation)	▪ **Marten Falls First Nation** (Proponent and potential impacted Indigenous community) ▪ Aroland First Nation ▪ Constance Lake First Nation ▪ Eabametoong First Nation	▪ Ginoogaming First Nation ▪ Long Lake #58 First Nation* ▪ Neskantaga First Nation ▪ Nibinamik First Nation ▪ Webequie First Nation
Mushkegowuk Council (Nishnawbe Aski Nation)	▪ Attawapiskat First Nation ▪ Fort Albany First Nation	▪ Kashechewan First Nation
Shibogama First Nations Council (Nishnawbe Aski Nation)	▪ Kasabonika Lake First Nation ▪ Kingfisher Lake First Nation ▪ Wapekeka First Nation;	▪ Wawakapewin First Nation ▪ Wunnumin Lake First Nation
Independent First Nations Alliance (Nishnawbe Aski Nation)	▪ Kitchenuhmaykoosib Inninuwug	
Independent Bands (Nishnawbe Aski Nation)	▪ Weenusk First Nation	
Nokiiwin Tribal Council and the Union of Ontario Indians	▪ Animbiigoo Zaagi'igan Anishinaabek (AZA)*	
Métis Nation of Ontario	▪ Métis Nation of Ontario; Region 2*	
Independent Métis Nation	▪ Red Sky Independent Métis Nation*	

*Note: * Indigenous communities or organizations identified by MECP who should be consulted on the basis that they may be interested in the Community Access Road.*

Those Tribal Councils, Nations and Alliances listed above, as well as the Chiefs of Ontario and Union of Ontario Indians, have also been identified as potentially interested in the Project, and will be provided with information and the opportunity to meet throughout the EA process.

The list provided by the Crown includes communities who should be consulted with because: 1) they may be interested in the Project; and 2) they have or may have constitutionally protected Aboriginal or Treaty Rights that may be impacted by the Project. Recognizing that the nature of a community's interest may change as the EA process progresses and new information becomes available, all identified communities will receive all statutory notices (e.g., Notice of Commencement of the Environmental Assessment) related to the EA and comprehensive Project updates, and will be provided the full opportunity to review and comment on key EA documents (i.e., Draft and Proposed Terms of Reference, Draft and Final Environmental Assessment Report). In addition, communities who are considered to have / may have Rights that may be impacted by the Project will be provided the opportunity to be engaged more frequently and with more depth than those communities who have been considered to only have an interest in the Project

To help ensure an appropriate level of consultation related to the proposed all-season Community Access Road (i.e., frequency and depth of consultation), the list of identified Indigenous communities was considered against the following:

- Expressed interest (to-date) in meeting with MFFN on the proposed Community Access Road;
- Geographical distance or proximity to the study area;
- Situated downstream of the Project and with a potential to experience impacts to water courses as a result of the Project, and / or located within a connected watershed;
- Traditional and/ or current land use within the study area or of lands potential impacted by the Project;
- Familial or clan connections to MFFN community;
- Community Based Land Use Planning and / or area of interest for planning has been identified, including any shared protocols associated between MFFN and others;

The Indigenous communities, therefore, expected to have the highest level of interest in the Community Access Road and a higher potential for impacts related to its development follow; it is expected that these communities will request the most frequent and deepest level of consultation/ engagement:

- Marten Falls First Nation;
- Aroland First Nation;
- Eabametoong First Nation;
- Constance Lake;
- Ginoogaming First Nation; and
- Neskantaga First Nation

The above list of communities expected to have a heightened interest in the Project is preliminary, and it is expected that the list will evolve through the ToR and the EA consultation phases as new information becomes available and more neighbouring Indigenous communities are engaged.

In addition to receiving all statutory notices and being provided with comprehensive information related to the Project throughout the EA and the full opportunity to review and comment on key EA documents, these communities will also be encouraged to meet in-person, more often and as needed, to discuss the Project and gather feedback from the community. As it is understood that the level of a community's interest may change as the EA process progresses and new information becomes available, this list will be reconsidered regularly throughout the EA.

The remaining Indigenous communities (of the list of 22 communities identified by the MECP) will be engaged similarly in that they will receive all statutory notices, and will be provided with comprehensive information related to the Project throughout the EA and the full opportunity to review and comment on key EA documents. These communities will also be offered in-person consultations; however, it is expected that these will occur less frequently than with the initial list of communities.

3.2 Government Agencies

3.2.1 Government Review Team

Throughout the course of the ToR development, the MFFN Project Team has discussed the Project with provincial and federal government agencies during regular conference calls and meetings on various aspects of the EA, including timing for reviews of the ToR, data availability, route selection process and consultation activities (particularly as they relate to Indigenous communities). The government agencies that are members of the Government Review Team include (but are not limited to):

- Ministry of Energy, Northern Development and Mines (ENDM);
- Ministry of the Environment, Conservation and Parks (MECP);
- Ministry of Natural Resources and Forestry (MNRF);
- Impact Assessment Agency of Canada (IAAC) - formerly the Canadian Environmental Assessment Agency;
- Ministry of Transportation (MTO); and
- Ministry of Heritage, Sport, Tourism, and Culture Industries (MHSTCI).

Throughout the EA process, it is anticipated that the Government Review Team will provide information and guidance for MFFN to consider in preparation of the EA and will contribute to the review of EA documentation by providing comments from their mandated areas of responsibility. Considering the Project components and the potential environmental impacts, provincial and federal agencies are expected to participate in the EA to varying levels.

In addition, through the establishment of an EA Co-ordination Team, the MFFN Project team has and will continue to receive guidance from a select group of agencies including ENDM, MECP, MNRF and IAAC. This team will meet regularly throughout the EA process to provide updates, exchange information, consider opportunities and concerns, and to discuss opportunities to progress and improve the EA process.

3.2.2 Municipalities

Based on their proximity to the proposed Community Access Road, The City of Thunder Bay and the Municipality of Greenstone will be included in the EA Consultation program.

3.3 Public and Stakeholders

An initial list of public and other stakeholders was developed based on discussions and project development prior to the initiation of the provincial EA and during preparation of the ToR. Public stakeholders are individuals and groups who could have an interest in the Project, including but not limited to communities in the region, those with commercial interests (e.g., forestry, trappers, outfitters, other mineral tenure holders in the area) and recreational users or those with recreational interest (e.g., campers, hunters, and environmental groups). Many of the public and other stakeholder representatives within the area meet frequently (monthly) as part of the Geraldton Area Natural Resource Advisory Committee (GANRAC); this group has been and will continued to be engaged throughout the EA process.

4. Consultation Activities During the EA

MFFN's primary objective is to effectively communicate information about the proposed Community Access Road, and to consult with those who may be potentially affected by, or have an interest in, the Project or the lands potentially affected by the Project. MFFN is committed to creating and sustaining constructive dialogue and relationships with interested persons, including MFFN community membership, neighbouring Indigenous communities and their memberships, government agencies, the public, industry, non-government organizations, and local and regional stakeholders, to support the environmental, social, and economic sustainability of the Project.

Communication and engagement will be planned and executed to align with the Guiding Principles and consultation key elements introduced in **Section 2.1** and to provide MFFN community members, neighbouring Indigenous communities and interested persons with opportunities to learn about and understand the proposed Community Access Road, and provide input to help identify potential effects and impact management measures.

Consultation and engagement efforts undertaken in the ToR phase will continue into the EA. Any feedback received during the ToR phase related to the consultation approach, activities, milestones and scheduling will also be taken into consideration during the EA.

The following milestones throughout the EA will help to guide consultation and engagement efforts:

- Notice of Commencement;
- Development of impact assessment/ routing evaluation criteria;
- Evaluation of routing alternatives;
- Identification of preferred alternative;
- Submission of Draft Environmental Assessment Report/ Impact Statement; and
- Submission of Final Environmental Assessment Report/ Impact Statement.

Note: The Impact Statement is pending federal EA requirement decision.

4.1 Activities

4.1.1 Indigenous Communities

Participation of Indigenous communities during the EA is intended to allow MFFN to identify, consider and respond to potential concerns and issues of interested Indigenous communities, including its own community membership, and to provide those communities with an opportunity to receive information and provide meaningful input into the EA process. It is MFFN's intent throughout the EA to engage Indigenous communities and organizations at an appropriate level, considering interest and potential impacts related to the proposed access road. We recognize that the level of engagement desired by each community will vary and could evolve through ongoing discussions and are accepting of these changes.

It is not the Project Team's intent to dictate the form of engagement to be offered to each community, although effort has been made to predict the appropriate level of consultation using established criteria (see **Section 3.1**). The activities outlined in this Consultation Plan will be used as the foundation for consultation with Indigenous communities. Once discussions are held with each interested community, more focused consultation efforts will be developed and uniquely applied as needed and will align with the community's own consultation process and

documents. If an Indigenous community has any type of land use planning document, feasibility study, strategic plan and/ or other plans that might be useful to reference and work with, they will help shape community-specific engagement and consultation efforts.

In the engagement of interested communities, the following factors have been and will continue to be considered throughout the Project:

- **The Land**:
  Where possible, meetings, activities and workshops will be hosted in the community and on the land, providing elders, youth, other community members and land users the opportunity to be in-place when discussing the Project and reflecting on Indigenous Knowledge.
- **Translation**:
  Meetings, information panels, newsletters and radio ads may be translated (as requested / required) into Oji-Cree to show respect to the people of the territory. MFFN will work with Indigenous communities to identify community members to fulfil the role of a live translator for meetings, if appropriate.
- **Traditional Foods**:
  Where possible, local caterers will be hired in the communities to make use of traditional foods for community meals.
- **Cross-Cultural Orientation**:
  If appropriate, MFFN will respectfully ask each Indigenous community to provide the Project Team with a cultural and community orientation. This will be in-person and will provide an opportunity to develop a series of Guiding Principles on how to work together based on respect, trust and mutual-learning.
- **Observe Hunting and Cultural Periods:**
  MFFN will consult with communities about the timing of engagement events to ensure there are no conflicts with traditional cultural periods.

All MECP identified communities will continue to receive Project notices including notices of public meetings, key website updates, and draft documentation releases. Plain language summaries and updates will also be periodically prepared and distributed at key milestones during the EA (e.g., selection of the preferred route). The information provided will clearly identify the MFFN contacts, should more information be desired and/ or to provide questions or concerns to.

A complete list of EA consultation activities is outlined in **Section 4.1.5,** including those that could be undertaken with Indigenous communities. Where possible. Community-specific Engagement Plans will be developed and shared with the Province as per the terms of the MFFN-MECP MOU on the Duty to Consult (see **Section 2.4**)

4.1.2 Indigenous Knowledge

A critical component of the EA is the integration of Indigenous Knowledge (IK) into the planning and design process. IK is an invaluable, continuously evolving body of knowledge, values and beliefs acquired through learned experience, observation and spiritual teachings. It is a system of classification, a set of empirical observations about the local environment and a system of self-management that governs the use of resources and defines the relationship of living beings with one another and with the environment.

Details about the IK approach and program is outlined in Section 7 of the Terms of Reference.

4.1.3 Government Agencies

The provision of information to provincial and federal agencies and other public agencies will provide transparency and accountability throughout the duration of the Project. MFFN is working with an EA Co-ordination Team that includes provincial agencies (MECP, ENDM, MNRF and MTO) and IAAC. This team will meet regularly throughout the EA process, either in Thunder Bay and / or via teleconference, to provide updates related to project development and guidance related to regulatory requirements.

The wider provincial Government Review Team will also be involved in the review of the ToR and EA, and will be engaged as appropriate throughout the development of the EA. **See Table 4-1: Consultation Activities** for more information about consultation activities related to Government Agencies.

4.1.4 Public and Other Stakeholders

The Project Contact List developed during the ToR will be expanded throughout the EA, and will be used to inform the public, individuals and groups about the EA and engagement activities.

During the EA, three Project Information Centres (PICs) are planned to be held in Thunder Bay; other locations including the Municipality of Greenstone (Geraldton) and Longlac will also be considered. The PICs will be advertised through newspaper ads, email invitations and social media.

The alternative routes for the Project fall within Cochrane District, which is a French designated area under the *French Language Services Act.* Therefore, for public meetings in the Municipality of Greenstone—also a French designated area under the *French Language Services Act* - bi-lingual Project Team member(s) can be available to provide French translation of materials.

In addition to the PICs, it is anticipated that meetings will be held with key stakeholder groups that would include but not be limited to: Municipality of Greenstone (including presentations to Council), GANRAC, forestry operators, outfitters and mineral exploration and development members. These meetings will be held depending on the interest of these organizations.

See **Table 4-1: Consultation Activities** for more information about consultation activities related to the public and other stakeholders.

4.1.5 Summary of Consultation Activities

A variety of communication, engagement and consultation tools will be used throughout the EA process to build positive, respectful relationships, share information with interested persons and obtain input on the Project. Input received through these activities, including how that input was considered, will be documented in the EA.

Table 4-1: Consultation Activities

Consultation Activity/ Tool	Indigenous Communities (including Marten Falls First Nation)	Public and Other Interested Persons	Government Agencies
Indigenous Communities			
Chief and Council and/ or Community Meetings, are expected with the most potentially interested / impacted communities (See Section 3.1), including MFFN. Three (3) visits for each of the communities are anticipated, to introduce the Project and gather feedback throughout the EA. Communication materials will be developed to support these meetings including: presentation decks; display boards; and fact sheets. These will be plain-language and visually inviting. Community visits to other neighbouring Indigenous communities will be planned on request.	X		
Community Member Discussions, with select members of Indigenous communities (e.g., Leadership, land users, hunters and trappers, youth, Elders) may be held to discuss the Project and obtain input. These discussions will be co-ordinated with data gathering needs for the EA.	X		
Topic-Specific Community Member Discussions, as an additional follow-up engagement activity for Indigenous community that would like to attend a focused conversation around a specific topic, for example Caribou. The meeting would be held in a central location that is easy for all interested groups to attend.	X		
MFFN Youth and Elder Meetings, will be timed with community visits to provide audience-specific information and gather input on the Project from these respected community members	X		
Social Media/ Facebook, will be leveraged to communicate more broadly with the MFFN community. Information related to Project notices and MFFN Community meetings will be posted to the community site(s).	X		
Community Consultation Co-ordinators, may be engaged to assist those communities with the highest potential for impact and project interest (and therefore the highest level of engagement), co-ordinate in-community events, assist with Indigenous Knowledge programs and inform the MFFN Project Team of engagement requirements and cultural protocols.	X		
All Stakeholders			
Project Statutory Notices will be provided throughout the EA process at key milestones, via registered mail and email, and published in local newspapers and on the radio. Additional notices (e.g., Field Study notices) will be directed to appropriate audiences via email / mail and posted on social media. All Project Statutory notices will also be mailed and emailed to individuals on the Contact List. Key milestones include: Notice of Commencement; invitations to PICs, Submission of the Draft EA Report and review period; Posting of the Final EA Report and review period.	X	X	X
Project Website (www.martenfallsaccessroad.ca), will provide ongoing access to information, employment opportunities and planned engagement activities, and will serve as a method to receive feedback and comments. The website will be updated through the EA to include all published information about the Project and be populated with Project updates at key Project milestones. Electronic versions of any newsletters/ project updates will also be available through the blog function of the website. The website will continue to be maintained and updated in a way that allows for users with low bandwidth and slow internet connection to access information.	X	X	X

Consultation Activity/ Tool	Indigenous Communities (including Marten Falls First Nation)	Public and Other Interested Persons	Government Agencies
Project Hotline / Email Address, contact information (e.g., telephone number and email address) will be included on Project communication materials so that people know who to contact to solicit information or discuss Project activities and provide feedback.	X	X	X
Newsletters and Email Updates, will be provided throughout the EA to keep people informed and up-to-date on Project progress; distribution will be scheduled around the timing of planned PIC/ Off-Reserve Community Meetings. Each update will be distributed to MFFN community members, neighbouring Indigenous communities and persons who have expressed an interest in the Project. Newsletters will also be made available at the MFFN Band Office, on the website and through the electronic mailing list. Paper copies of newsletters can also be provided to interested communities or stakeholders, if requested.	X	X	X
Comment Forms / Questionnaires, will be developed and used to gather feedback at PICs and community meetings.	X	X	X
Key Informant Interviews will be scheduled with select interested persons/ organizations (e.g., Geraldton Area Natural Resources Advisory Committee, business operators and resource users) to gather information regarding key issues and possible concerns. Presentations to key groups will be an important component of soliciting feedback for decision-making.	X	X	
Public Information Centres will be held at key Project milestones in Thunder Bay and in the Municipality of Greenstone on three (3) occasions. These events will serve to discuss the Project and obtain input from members of the public and other interested persons. PICs will be advertised in local newspapers, and through the Project Contact List and website.	X	X	X
Environmental Assessment Report/ Impact Statement may be reviewed by the public and interested persons during public review periods. These documents will be made available on the Project website (www.martenfallsaccessroad.ca), will be posted at select locations and provided to specific Indigenous communities by mail, electronic copy and USB. Plain language and translated copies of the documents can be provided. Note: Impact Statement is pending federal EA requirement decision.	X	X	X

The approach to engagement throughout the EA is designed to provide flexibility and adaptability to evolving Project needs and may involve community-specific consultation plans. As with any project, it is anticipated that there will be individuals, groups or other interested persons that may require additional consultation not reflected in this approach. In addition, communication and engagement tools will be regularly evaluated to ensure effectiveness and adjustments will be made as necessary to allow for implementation of a robust and effective consultation program.

4.1.6 Schedule

Table 4-2: Consultation Milestones, Schedule and Activities

Milestone	Activities	Targeted Input	Timing
Notice of EA Commencement—Introduction	▪ Circulate EA Notice of Commencement ▪ Website update ▪ Distribute Letter to Chief and Councils ▪ Meet with interested Chiefs and Councils and/or Indigenous communities ▪ Newsletters and email blasts ▪ Social media updates	▪ Level of interest in Project ▪ Level of interest in meeting with Chiefs and Councils and/ or communities ▪ How Indigenous communities would like to be kept informed during the EA	Summer, 2020
Indigenous Community Outreach – Introduction of EA Process	▪ MFFN community member meeting ▪ MFFN Youth and Elder ▪ Ongoing discussions/ meetings with neighbouring Indigenous communities ▪ Continued outreach to Indigenous communities to gauge interest and schedule meetings (telephone, mail, email) ▪ Engage any required Community Consultation Co-ordinators	▪ Indigenous Knowledge and/or feedback on approach to gathering and considering Indigenous Knowledge ▪ Potential Impacts of Project on Aboriginal or Treaty Rights ▪ Important values the MFFN Project Team should consider ▪ Input to study area, EA process, consultation approach, baseline conditions, requested topics of interest	Summer to Fall, 2020 (continues throughout entire EA process)
Alternative Route Impact Assessment and Evaluation Criteria	▪ MFFN community member meeting ▪ Neighbouring Indigenous community meetings ▪ PIC #1 ▪ Plain language Project updates ▪ Key informant interviews ▪ Website update ▪ Newsletter and email blasts ▪ Social media updates	▪ Input to study area, evaluation criteria, route alternatives, consultation approach ▪ Important values the Project Team should be considering ▪ Share Indigenous Knowledge ▪ Impacts on Aboriginal or Treaty Rights ▪ Input on how feedback has been incorporated into the EA process	Fall, 2020
Identification of Preferred Route—Which Route for the Potential Road Will be Selected?	▪ MFFN community member meeting ▪ Ongoing neighbouring Indigenous community meetings ▪ PIC #2 ▪ Plain language Project updates ▪ Key informant interviews ▪ Potential meetings with shared community-specific interests (e.g., caribou) ▪ Website update ▪ Newsletter and email blasts	▪ Input on community-specific interests (e.g., caribou) ▪ Input on preferred route alternative, rational for its selection and preliminary road design ▪ Input on potential effects and impact management program to incorporate in Draft EA ▪ Input on how feedback has been incorporated into the EA process	Winter, 2021

Table 4-2: Consultation Milestones, Schedule and Activities

Milestone	Activities	Targeted Input	Timing
Review of Draft Environmental Assessment Report	▪ Circulate Notice of Draft EA Report ▪ Post Draft EA Report at Band Offices and participating municipal locations ▪ Follow-up calls to Final EA Report recipients ▪ MFFN community member meeting ▪ Ongoing neighbouring Indigenous community meetings ▪ Key informant interviews ▪ PIC #3 ▪ Plain language Project updates ▪ Potential meetings with shared community-specific interests (e.g., caribou) ▪ Website update ▪ Monthly newsletter and email blasts ▪ Social media updates	▪ Input and comments on Draft EA Report ▪ Input on how feedback was incorporated in the Draft EA Report, including input on consultation summary and key inputs, including Indigenous Knowledge obtained, for the Draft EA Report	Spring, 2021
Review of Final Environmental Assessment Report	▪ Circulate Notice of Final EA Report ▪ Post Final EA Report at Band Offices and participating municipal locations ▪ Letters to Chiefs & Councils ▪ Plain language Project updates ▪ Follow-up calls to Final EA Report recipients ▪ Contact Government Review Team and neighbouring Indigenous communities about the Final EA Report and Draft EA Report ▪ Ongoing neighbouring Indigenous outreach and potential meetings ▪ Website update ▪ Monthly newsletter and email blasts ▪ Social media updates	▪ Input on Final EA Report	Winter to Spring, 2022

5. Issue Resolution

Consultation is expected to bring to light issues that must be carefully addressed and considered in the EA process. Comments and input received throughout the EA will be documented and included in a Record of Consultation for the EA. Each issue or comment received will be considered and responded to by MFFN, and documented in the EA. If an issue persists, continued discussions, including face-to-face meetings, are proposed to explore potential solutions. If resolution cannot be reached, mediation by a neutral, mutually acceptable third party will be considered. Issues that cannot be resolved will be noted along with documentation of attempts to resolve the issue.

6. Record of Consultation

For successful completion of the EA, it is essential that the consultation process be documented, to appropriately categorize and address feedback received. For reporting purposes, a Record of Consultation has been developed to track all incoming and outgoing discussions, correspondence and public and stakeholder meetings since the Notice of Commencement of the ToR along with notes on how questions and concerns were addressed. The Record of Consultation will be updated as the Project progresses. This Record provides an accurate account of all communication exchanged with neighbouring Indigenous communities and other interested persons during the EA and will include the following:

- Contact information of the Project Team member and stakeholder or stakeholder group involved in the correspondence;
- Date the correspondence occurred;
- Method of communication (e.g., email, phone call, letter, in-person meeting);
- Copy of or link to original correspondence source (e.g., email, letter)
- Summary of correspondence; and
- Identification of issues raised, and follow-up action required, if necessary.

A copy of the Record of Consultation will be provided to regulators and each Indigenous community will be provided with a copy of records pertaining to their community. A final Record of Consultation including all incoming and outgoing Project correspondence will be provided as an appendix to the Individual EA.

7. Monitoring and Measuring

It will be necessary to gauge the effectiveness of the Consultation Plan throughout the EA process. Key Performance Indicators based on the Guiding Principles will be used to measure the performance of the engagement activities. The proposed Key Performance Indicators include:

- Level of comments received via the Project website, at PICs and other in-person events, measured by an assessment of the number of inquiries and comments received and nature of media coverage;
- Attendance at live events;
- Number of requests to join the Project Contact List;
- Number of website hits on the Project website; and
- Satisfaction with information provided, measured by comments received at live events, on comment forms, and via email and telephone.

This Consultation Plan is designed to be a living document and will be reviewed on a regular basis.

8. References

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