Marten Falls First Nation

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

Prepared by:

AECOM Canada Ltd.
105 Commerce Valley Drive West, 7th Floor
Markham, Ontario L3T 7W3
Canada

T: 905.886.7022
F: 905.886.9494
www.aecom.com

Date: September 2020

Project #: 60593122

Distribution List

# Hard Copies	PDF Required	Association / Company Name
✓	✓	Marten Falls First Nation
✓	✓	Ministry of the Environment, Conservation and Parks
	✓	AECOM Canada Ltd.

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("AECOM") for the benefit of the Client ("Client") in accordance with the agreement between AECOM and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents AECOM's professional judgement in light of the Limitations and industry standards for the preparation of similar reports;
- may be based on information provided to AECOM which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context;
- was prepared for the specific purposes described in the Report and the Agreement; and
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time.

AECOM shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. AECOM accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

AECOM agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but AECOM makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

Without in any way limiting the generality of the foregoing, any estimates or opinions regarding probable construction costs or construction schedule provided by AECOM represent AECOM's professional judgement in light of its experience and the knowledge and information available to it at the time of preparation. Since AECOM has no control over market or economic conditions, prices for construction labour, equipment or materials or bidding procedures, AECOM, its directors, officers and employees are not able to, nor do they, make any representations, warranties or guarantees whatsoever, whether express or implied, with respect to such estimates or opinions, or their variance from actual construction costs or schedules, and accept no responsibility for any loss or damage arising therefrom or in any way related thereto. Persons relying on such estimates or opinions do so at their own risk.

Except (1) as agreed to in writing by AECOM and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

AECOM accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of AECOM to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.

AECOM: 2015-04-13
© 2009-2015 AECOM Canada Ltd. All Rights Reserved.

Authors

Report Prepared By:

<Originally Signed By>

Jessalyn Beaney, B.Sc.
Senior Environmental Planner

<Originally Signed By>

Sara Barss, P.Eng., MPA
Senior Environmental Planner

Report Reviewed By:

<Originally Signed By>

Christine Cinnamon
Senior Project Manager

<Originally Signed By>

Shawna Kjartanson, M.Sc., P.Biol., EP
Environmental Scientist

Table of Contents

page

1. Introduction 1

2. The Proponent 3

2.1 Proponent Identification 3
2.1.1 Community-Led Process 3
2.1.2 Proponent Contact Information 4

3. Environmental Assessment Process 5

3.1 Provincial Environmental Assessment Requirements 5
3.2 Federal Impact Assessment Requirements 6
3.3 Canada-Ontario Agreement on Environmental Assessment Cooperation 6
3.4 Preparation of the Environmental Assessment 7
3.4.1 Environmental Assessment and Project Management Principles 8
3.4.2 Indigenous Knowledge and Indigenous Land and Resource Use 9
3.4.2.1 Indigenous Knowledge Program 11

4. Purpose of the Project and the Study 13

5. Rationale for and Description of the Undertaking 14

5.1 Rationale for the Proposed Undertaking 14
5.2 Description of the Proposed Undertaking 15
5.2.1 Project Components 15
5.2.1.1 Road 15
5.2.1.2 Bridges and Culverts 16
5.2.1.3 Quarries, Borrow Areas, and Aggregate Source Areas 16
5.2.1.4 Temporary Infrastructure for Construction 16
5.2.2 Project Activities 17

6. Description of and Rationale for Alternatives 21

6.1 Overview 21
6.2 Approach to Considering “Alternatives To” 21
6.3 Approach to Considering “Alternatives Methods” 22
6.3.1 Alternative Routes for the Environmental Assessment 24

7. Existing Environment and Potential Environmental Effects 27

7.1 Description of the Environment and Methods to Characterize the Environment 27
7.1.1 Preliminary Study Area 27
7.1.2 Environmental Features 30
7.1.3 Methods to Characterize the Environment during the Environmental Assessment 30

7.1.4 Description of the Existing Environment 31
7.1.4.1 Aboriginal and Treaty Rights and Interests 32
7.1.4.2 Atmospheric Environment 42
7.1.4.3 Acoustic Environment 43
7.1.4.4 Physiography, Geology, Terrain and Soils 44
7.1.4.5 Surface Water 46
7.1.4.6 Groundwater 47
7.1.4.7 Vegetation 48
7.1.4.8 Wildlife 49
7.1.4.9 Fish and Fish Habitat 54
7.1.4.10 Social, Economic and Built Environment 57
7.1.4.11 Archaeology and Cultural Heritage 62
7.2 Potential Environmental Effects 63
7.2.1 Indigenous Peoples' Rights and Interests 65
7.2.2 Atmospheric Environment 66
7.2.3 Acoustic Environment 66
7.2.4 Physiography, Geology, Terrain and Soils 67
7.2.5 Surface Water 67
7.2.6 Groundwater 68
7.2.7 Vegetation 68
7.2.8 Wildlife 69
7.2.9 Fish and Fish Habitat 69
7.2.10 Social, Economic and Built Environment 70
7.2.11 Archaeology and Cultural Heritage 71

8. Assessment and Evaluation 72

8.1 Alternative Route Segments 73
8.2 Proposed Criteria and Indicators 73
8.3 Assess and Evaluate Net Effects 73
8.4 Advantages and Disadvantages 74

9. Commitments and Monitoring 76

9.1 Environmental Commitments 76
9.1.1 Commitments Identified during the Terms of Reference 76
9.2 Environmental Monitoring 77

10. Consultation During the Terms of Reference 78

10.1 Principles of Consultation 78
10.2 Summary of Consultation Activities on the Terms of Reference 80
10.2.1 Project Notifications and Information Releases 81
10.2.2 Indigenous Communities Engagement 82
10.2.2.1 Marten Falls First Nation 87
10.2.2.2 Neighbouring Indigenous Communities 89
10.2.3 Interested Persons 97
10.2.4 Crown Government Agencies 99
10.2.5 Summary of Changes to the Terms of Reference 101
10.3 Release of Proposed Terms of Reference 101

11. Consultation and Engagement Plan to Support the Environmental Assessment 102

11.1 Importance of Consultation 102
11.2 Duty to Consult 103
11.3 Neighbouring Indigenous Communities, Government Agencies and Interested Persons 103
11.3.1 Identification of Neighbouring Indigenous Communities 104
11.4 Crown Government Agencies 104
11.4.1 Provincial and Federal Agencies 104
11.4.2 Municipalities 105
11.5 Interested Persons 105
11.6 Consultation Activities During the Environmental Assessment 105
11.7 Milestones and Targeted Input 108
11.8 Issue Resolution 109
11.9 Record of Consultation 109

12. Accommodating New Circumstances 111

13. Other Permits and Approvals 112

14. References 115

List of Figures

Figure 1-1: Project Location 2
Figure 2-1: Community-led Process 3
Figure 5-1: Project Schedule 18
Figure 6-1: Alternative Routes 25
Figure 7-1: Preliminary Study Area 28
Figure 7-2: Treaty Boundaries 33
Figure 7-3: Potential Aggregate Sources 45
Figure 8-1: Alternative Routes and Segments 75
Figure 10-1: Guiding Principles 78
Figure 10-2: Terms of Reference Consultation Activities 81
Figure 10-3: Location of Neighbouring Indigenous Communities 85

List of Tables

Table 7-1: Environmental Components and Disciplines to be Considered during the Environmental Assessment 30
Table 7-2: Community Profiles of Neighbouring Indigenous Communities 35
Table 7-3: Estimated Number of Culvert and Bridge Watercourse Crossings 46
Table 7-4: Potential Wildlife Species At Risk and Species At Risk Habitat 51
Table 7-5: Potential Fish Species At Risk and Species At Risk Habitat 56
Table 7-6: Preliminary Identification of Potential Environmental Effects 64
Table 8-1: Net Effects Characteristics 74

Table 10-1: Identified Indigenous Communities, including their Provincial Territorial Organizations and / or Tribal Council Affiliations 83
Table 10-2: Marten Falls First Nation Community Member Meetings 87
Table 10-3: Consultation with Neighbouring Indigenous Communities 90
Table 10-4: Crown Government Agency Meetings 99
Table 11-1: Consultation Activities 106
Table 11-2: Milestones and Targeted Input 108
Table 13-1: Potential Permits and Approvals for the Project 113

Appendices

Appendix A. Draft Criteria and Indicators for Alternatives Evaluation
Appendix B. Consultation and Engagement Plan to Support the Environmental Assessment / Impact Statement
Appendix C. Record of Consultation
Appendix D. Marten Falls-Ontario Memorandum of Understanding on Shared Consultation Responsibilities

List of Acronyms and Abbreviations

AZA ..... Animbiigoo-Zaagi'igan Anishinaabek First Nation
CAR ..... Community Access Road
CBLUP ..... Community Based Land Use Plan
CIRNAC ..... Crown-Indigenous Relations and Northern Affairs Canada
EA ..... Environmental Assessment
EAA ..... *Environmental Assessment Act*
ENDM ..... Ministry of Energy, Northern Development and Mines
GHG ..... Greenhouse Gas
IA ..... Impact Assessment
IAA ..... *Impact Assessment Act*
km ..... Kilometres
LiDAR ..... Light Detection and Ranging
MECP ..... Ministry of the Environment, Conservation and Parks
MFFN ..... Marten Falls First Nation
m ..... Metres
mm ..... Millimetres
MNO ..... Métis Nation of Ontario
MNRF ..... Ministry of Natural Resources and Forestry
MOU ..... Memorandum of Understanding
MHSTCI ..... Ministry of Heritage, Sport, Tourism, and Culture Industries
MTO ..... Ministry of Transportation
NoC ..... Notice of Commencement
PIC ..... Public Information Centre
RSMIN ..... Red Sky Métis Independent Nation
RoC ..... Record of Consultation
ROW ..... right-of-way
ToR ..... Terms of Reference
The Agency ..... Impact Assessment Agency of Canada

1. Introduction

Marten Falls First Nation (MFFN) 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 MFFN community is proposing an all-season Community Access Road (CAR or the Project) that will connect the MFFN community to the Ontario provincial highway network (**Figure 1-1**). The Project includes construction and operation of a multi-purpose 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 effects of climate change in *Building Better Lives: Ontario's Long-term Infrastructure Plan* (MOI 2018). Therefore, interests and concerns of the MFFN community have identified a desire for improved all-season community access to the provincial highway network in the south, near Painter Lake.

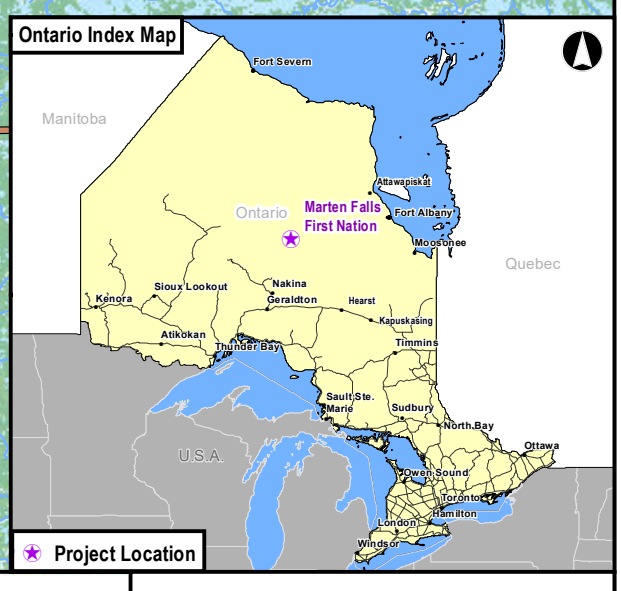
In 2009, MFFN was successful in acquiring funds from the Northern Ontario Heritage Fund Corporation to complete the 2011 MFFN Winter Road Realignment / All Weather Road Project, Feasibility Analysis and Business Plan Report (W. L. Lees & Associates and Marten Falls Logistics-LP. 2011, MFFN 2017). This report built on previous studies and was used by MFFN to guide discussions with government, industry, and adjacent Indigenous communities 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 [CIRNAC]) provided financial support under the Building Canada Fund for work related to realignment of the winter road to higher ground.

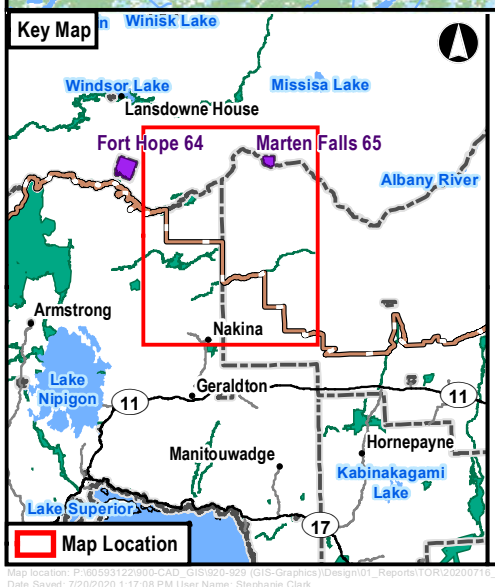
The Project is subject to the Ontario *Environmental Assessment Act* (EAA). In April 2018, MFFN signed an agreement with the Ministry of the Environment, Conservation and Parks (MECP) to prepare an Individual Environmental Assessment (EA). As the Proponent, MFFN has determined that the planning and EA process for this Project will follow a community-led approach, meaning the MFFN community helps to develop solutions and advance decisions about the CAR (**Section 2.1.1**). MFFN, as the Proponent of the Project, has formed a MFFN 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**). The MFFN Project Team will also undertake consultation with neighbouring Indigenous communities, government agencies and interested persons[2] to promote an EA process that carefully addresses traditions, Indigenous Knowledge[3] 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* (MECP 2020) and will be submitted to the Minister of the Environment, Conservation and Parks for review and decision. Should the ToR be 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. *The phrase "interested persons" is defined as individuals and groups (e.g., associations, non-governmental organizations, industry and academia) 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).*
3. *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.*

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





Legend

- Highway
- Local Road
- Resource / Recreation Road
- Existing Winter Access Road
- Railway
- Provincial Park
- Woodlands
- Waterbody
- Wetlands
- 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

Jul, 2020	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

AECOM

Figure 1-1

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-07-16_Fig1_ProjectLocation_R1_60593122.mxd
Date Saved: 7/20/2020 1:17:08 PM User Name: Stephanie.Clark

2. The Proponent

2.1 Proponent Identification

The Proponent of the 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.

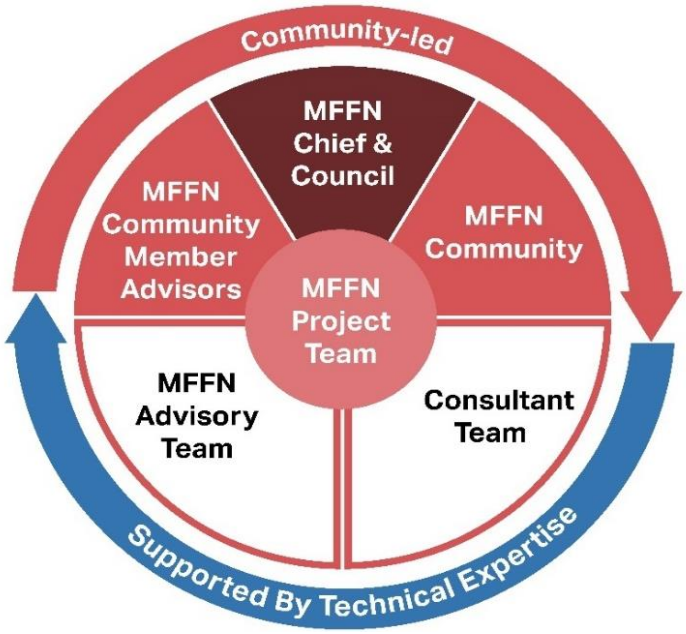
2.1.1 Community-Led Process

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

- Manage the Project to meet the requirements of the EA / IA processes;
- Keep MFFN community membership, as the Proponent, up-to-date on plans and progress, and to gather direction and input to enable decisions by MFFN Chief and Council related to the CAR; and
- Consult and engage members of MFFN and neighbouring Indigenous communities.

MFFN community membership have 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**.** Although not every MFFN community member is part of the MFFN Project Team, input from community members, in addition to direction from MFFN Chief and MFFN Council and Community Member Advisors, helps guide 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:

- Chief Bruce Achneepineskum; 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
  Provincial Environmental Assessment Lead
  AECOM Canada Ltd.
  105 Commerce Valley Drive West, 7th Floor
  Markham, Ontario L3T 7W3
  Telephone: +905-886-7022
  Email: christine.cinnamon@aecom.com

3. Environmental Assessment Process

The Project is subject to the Ontario EA process and a federal Impact Assessment (IA). In addition, other permits and approvals will be 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 assessment requirements, how the EA is to be prepared, and information on EA and project management principles that are key to successful planning and 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 Project, including the need to prepare an Individual EA.

The Project may also require the completion of Class EAs prior to proceeding with construction. Where possible, the Individual EA will be prepared in a manner that meets the requirements of Class EAs confirmed applicable to the Project. A review of Class EAs as well as consultation with government agencies has been undertaken and the following Class EA processes have been identified as applicable to the Project based on information available at the time of preparing the ToR:

- MECP Provincial Parks and Conservation Reserves Class EA for disposition of land tenure and new road within a provincial park; and
- MNRF Resource Stewardship and Facility Development Class EA for the disposition of rights to Crown resources.

The Project may also be subject to the MTO Provincial Transportation Class EA should the CAR be considered a provincial highway under the *Public Transportation and Highway Improvement Act*. Options for ultimate road ownership and access are being considered in discussion with the Province. The intent for the CAR (i.e., public or private) may determine other provincial and federal environmental approvals, including additional EA process requirements. MTO will be consulted throughout the EA process and when information is available, will assess whether additional requirements should be included in the EA to retain flexibility until a decision is made, including any MTO Class EA process requirements if applicable. Ultimate ownership of the road may also trigger an additional class of project under the MECP Class EA to deregulate park land and modify the boundary of a provincial park for the CAR.

The Individual EA, and appropriate notices, will specify the intent to meet some or all of the Class EAs applicable to the Project in conjunction with the Individual EA requirements. Where applicable, the exact Class EA requirements will also be listed to provide transparency with respect to how Class EA triggers will be addressed.

It is noted that the July 2020 amendments to the EAA[4] included changes to the provincial EA process that may result in requirements for the Project that are different than what is outlined above. MFFN will consult with government agencies throughout the EA process to confirm applicable requirements from the EAA amendment.

4. On July 21, 2020, Ontario passed Bill 197, the COVID-19 Economic Recovery Act, 2020. Through Schedule 6 of this Act, Ontario made amendments to the EAA.

3.2 Federal Impact 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*

The Detailed Project Description was accepted by the Impact Assessment Agency of Canada (the Agency) and it was confirmed that a federal Impact Assessment would be required for the Project on December 2, 2019. The Agency has issued Tailored Impact Statement Guidelines for the Proponent to follow during the preparation of the Impact Statement. The Notice of Commencement (NoC) for the federal IA was released in late February 2020.

3.3 Canada-Ontario Agreement on Environmental Assessment Cooperation

Under the Canada-Ontario Agreement on Environmental Assessment Cooperation, projects that require review under both provincial and federal EA legislation may undergo a single, cooperative assessment, meeting the legal requirements of both provincial and federal governments. The *Impact Assessment Act, 2019* includes provisions for cooperation and coordinated 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, cooperative assessment” would entail, particularly given the recent passing of the *Impact Assessment Act*.

The current understanding is based upon the *Impact Assessment Agency of Canada – Ontario Ministry of the Environment, Conservation and Parks Cooperation Plan for the Marten Falls Community Access Road Project Impact Assessment* (IAAC 2020a). The following is a summary of key points from this document:

- The Agency and MECP will coordinate activities, where possible, including harmonizing timelines, streamlining processes, and reducing regulatory burden. Each jurisdiction retains its own decision.
- The Agency and MECP have identified common factors and areas of review that are expected, related to provincial and federal assessments of projects of this type. For these areas, the Agency and MECP will work to provide consistent advice to the Proponent, where appropriate, and to share information and expertise during the review of the Proponent’s information.
- A coordinated provincial and federal assessment process should result in one body of Proponent documentation related to the assessment, which is known as the Impact Statement for the Agency, and as the Environmental Assessment report for MECP.
- The Agency will, where possible, align and coordinate with MECP public comment periods and associated timelines for the Project.
- The Agency will lead Crown consultation on behalf of the Government of Canada for this assessment, while Ontario (MECP and ENDM) will be responsible for provincial Crown consultation for the assessment of this Project[5]. The Agency and Ontario (MECP and ENDM) will coordinate, to the extent possible and desired by Indigenous communities, joint consultation and engagement meetings.
- The Agency and MECP will consult with each other regarding proposed conditions related to decisions, to facilitate consistency and improve regulatory efficiencies.

5. *The Province of Ontario (MECP and ENDM) and MFFN entered 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.*

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 an approval decision. It sets out the framework for the planning and decision-making process to be followed by the proponent during the preparation of an EA. Should the ToR be approved by the Minister of the Environment, Conservation and Parks, MFFN will commence the EA for the 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 the reasonable range of alternatives that are within MFFN's ability to implement is limited to an all-season access road. 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 Project will consist of:

- a description and purpose of the undertaking;
- a 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 EA Government Review Team appointed for the Project. The review process, outlined below, takes a minimum of 30 weeks for the Minister of the Environment, Conservation and Parks to reach a decision on an EA:

- Public and Government Review: the MECP and other government agencies, Indigenous communities and interested persons are provided seven weeks to comment on the Individual EA.
- MECP Review: the MECP has five weeks to prepare a Ministry Review Report that considers the proponent's 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 and interested persons have five 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's Decision: Once the public consultation on the Ministry Review is finished, the Minister of the Environment, Conservation and Parks has 13 weeks to make a decision whether to approve the EA or not. The EA must be approved before the Project can proceed. The Minister of the Environment, Conservation and Parks may:
  - refer the undertaking to mediation, prior to a making a decision;
  - refer the undertaking to the Environmental Review Tribunal, prior to making a decision, which is 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 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 per the Code of Practice (MECP 2020) include:

- Adhere to timelines in accordance with Ontario Regulation 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 coordinate 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.

3.4.2 Indigenous Knowledge and Indigenous Land and Resource Use

Indigenous Knowledge refers to Indigenous systems of knowledge as well as cultural practices related to the production of knowledge based on traditional belief systems, relationships to the environment and community practices. It is the accumulated and living knowledge built upon the historic experiences of Peoples living on the land and adapting to social, economic, environmental, spiritual and political change (Chiefs of Ontario, n.d.). It includes knowledge about the natural environment (e.g., locations of caribou seasonal use and calving areas), the relationships between environmental changes and species or ecosystems, and how potential effects to the environment can be avoided or minimized. Indigenous land and resource use, sometimes referred to as Traditional Land Use, refers to areas and resources used when Indigenous Peoples learn and practice their Indigenous Knowledge (Garvin et al. 2001). During the EA, Indigenous Knowledge and information on Indigenous land and resource use will inform and validate 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. Further details of how Indigenous Knowledge and information on Indigenous land and resources use will be collected are provided in **Section 3.4.2.1**.

Indigenous communities will be involved at critical decision-making points throughout the EA so that MFFN can consider and incorporate, where appropriate, Indigenous Knowledge and Indigenous land and resource use information into the Project 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 work 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 criterion and indicator.

- **Establishing Existing Conditions** – Indigenous Knowledge can support and strengthen the EA as it has relevance to all aspects of the environment and, as a result, obvious linkages to the assessments of all disciplines (e.g., fish and wildlife, water, culture, archaeology). Indigenous Knowledge will identify cultural or heritage uses and will assist in determining health, abundance and distribution of species and their habitats, including seasonal variations, and historical changes / fluctuation. Information collected through the Indigenous Knowledge Program will also help to establish the current use of land and resources for traditional purposes. While baseline data collection has already commenced for several environmental disciplines, it is expected that available Indigenous Knowledge shared and collected to support the EA will be used to both guide future data collection ; and supplement the data gathered through Western scientific means for this remote area of the province. The findings of field investigations will also be presented to Indigenous communities to determine where Indigenous Knowledge fills gaps for characterizing existing conditions.

- **Assessing Potential Effects**
  MFFN will support interested Indigenous communities in completing Project-specific Indigenous Knowledge and Indigenous Land and Resource Use 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 the Project may have a potential effect on a particular criterion and indicator based on traditional characteristics of the value and its importance to the people from an Indigenous Knowledge perspective. MFFN will consult and engage with Indigenous communities to identify potential effects from an Indigenous perspective. Working with Indigenous communities in the collection and sharing of Indigenous Knowledge and information on Indigenous land uses will better position MFFN to document and address concerns directly and effectively in the EA.

- **Developing Impact Management Measures**
  Indigenous Knowledge and information on Indigenous land and resource use 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 work with Indigenous communities and solicit Indigenous Knowledge and perspective on impact management measures to manage potential effects. Indigenous Knowledge and information on Indigenous land and resource use will help to identify site-specific measures for sensitive areas, including avoidance where possible. Efforts will be made to identify impact management measures that include opportunities to support, retain and enhance Indigenous Knowledge during planning, construction, and operation of the CAR.

Indigenous Knowledge and information on Indigenous land and resource use is extremely sensitive in nature. Indigenous Knowledge within the EA 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 and information on Indigenous land and resources can be received in a timely manner for proper consideration in the EA.

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

- Integrating Indigenous Knowledge, spiritual and cultural values, and information on Indigenous land and resource use into environmental decision-making and Project design to enable the avoidance of important cultural or subsistence use areas and to identify potential impact management measures;
- Informing the selection of criteria and indicators used in the effects assessment to support the inclusion of criteria and indicators of relevance to Indigenous communities and their interests;
- Improving awareness of the potential effects the Project may have on Indigenous land and resource use and cultural practice, and the subsequent potential socio-cultural and health effects to support a fulsome assessment of potential impacts on Aboriginal and Treaty rights and interests; and
- Supporting Indigenous stewardship that allows for a more inclusive and holistic approach to environmental management and monitoring.

MFFN will strive to respectfully collaborate with Indigenous communities on how Indigenous Knowledge and information on Indigenous land and resource use will become part of the EA. It is expected that measures to support this may include but are not limited to: providing Indigenous communities with draft sections of the EA to illustrate how Indigenous Knowledge and information on Indigenous land and resource use has been integrated and to validate that it has been presented appropriately; and completing collaborative working sessions with Indigenous communities for the effects assessment on Aboriginal and Treaty Rights and Interests.

3.4.2.1 Indigenous Knowledge Program

For the purpose of the EA, the Indigenous Knowledge Program refers to how Indigenous Knowledge and information on Indigenous land and resource use will be collected for the Project. The Indigenous Knowledge Program for the EA will occur in two concurrent phases:

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

MFFN respects the importance of Indigenous Knowledge and Indigenous land and resource use information and the following principles will be used to guide the Project-specific Indigenous Knowledge and Indigenous Land and Resource Use studies:

- Knowledge Holders will be identified by the MFFN community to participate in the studies;
- Consultation and Indigenous Knowledge protocols will be defined prior to commencing studies;
- 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 Indigenous community will be respected;
- Indigenous Knowledge and Indigenous land and resource use data collection 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;
- Indigenous communities will own and control their Indigenous Knowledge and information on Indigenous land and resource use; and
- MFFN will strive to respectfully collaborate with Indigenous communities on how Indigenous Knowledge and information on Indigenous land and resource use shared will be incorporated into the EA.

MFFN will collaborate with Indigenous communities that complete Project-specific Indigenous Knowledge and Indigenous Land and Resource Use studies to develop the data collection methods, or to build on data collection methods already used by Indigenous communities, where appropriate. MFFN supports Indigenous communities conducting their own Indigenous Knowledge and Indigenous Land and Resource Use Study or having Project consultants to assist them in this undertaking. These studies could involve the following tasks:

- Literature review (i.e., discussion on existing data);
- Confirmation of the study area;
- Establishing Indigenous Knowledge and land and resource use categories (e.g., Animal Harvest, Spiritual / Cultural, Habitation, Travel);
- Indigenous Knowledge and Indigenous land and resource use information gathering workshops and / or one-on-one interviews;
- Validation session; and
- Report preparation including Indigenous Knowledge and Indigenous land and resource use baseline information, effects assessment, and proposed impact management measures.

MFFN will develop and provide an Indigenous Knowledge Program Guidance Document to support the sharing and collection of Indigenous Knowledge and information on Indigenous land and resource use relevant to and required for the EA, per provincial and federal requirements. It is expected that the Indigenous Knowledge Guidance Document will be designed to solicit:

- Site-specific Indigenous Knowledge and information on Indigenous land and resource use in the vicinity of the Project;
- Indigenous Knowledge that is not site-specific (e.g., how resources used are prepared, observed changes in wildlife populations);
- Information about the existing environment in the vicinity of the Project, both in the past and present;
- Concerns and perspectives about how the natural environment (e.g., wildlife, water) and human environment (e.g., culture, language, Indigenous land and resource use, Aboriginal and Treaty Rights) may be affected by the Project; and
- Suggestions for how the Project could be planned and designed to avoid or minimize potential negative effects, and enhance benefits.

It is anticipated that all Indigenous Knowledge and information on Indigenous land and resource use shared and / or collected through the program will be governed by Indigenous Knowledge Sharing Agreements that indicate how confidential information will be used to inform the effects assessment but will be protected from public or third-party disclosure.

While the Indigenous Knowledge Program is distinct from activities outlined in the Consultation and Engagement Plan to Support the Environmental Assessment / Impact Statement[6] (**Section 11)**, they are complementary and collectively serve to solicit Indigenous perspectives, values and inputs with respect to Project planning and the EA. A key differentiator is that sensitive and / or confidential information will be specifically collected through the Indigenous Knowledge Program and its use and publication will be governed by Indigenous community-specific Indigenous Knowledge Sharing Agreements. Instances where Indigenous Knowledge sharing has taken place during consultation activities (e.g., meetings, reports) will be recorded in the Record of Consultation, including where Indigenous Knowledge was incorporated into Project decisions and into the EA, with reference to the appropriate section where applicable (i.e., specifics will not be included in the public Record of Consultation given the potential sensitivity and / or confidentiality of the information shared).

6. *The Consultation and Engagement Plan to Support the Environmental Assessment / Impact Statement is herein referred to as a the "Consultation Plan".*

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, improve community social, health, education, and wellness services in addition to providing the MFFN community with future economic development opportunities. The CAR will serve community access and industrial supply needs for both the MFFN community (e.g., fuel, construction supplies, water treatment supplies) and industrial proponents (e.g., mining, forestry), thereby minimizing infrastructure corridors in the Far North, which aligns with general land use planning guidance and MFFN's community based land use planning underway. 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 alternative, identify the potential effects of the Project, identify and recommend impact management measures to avoid or minimize potential environmental effects and identify opportunities to enhance benefits to the environment.

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 MFFN community with economic opportunities associated with mineral developments in MFFN territory or near the Project. The improvements occurred in 2011 and 2012 and consisted of minor upgrades to the winter road to straighten corners and realign sections of the road to reduce snow drifting and thawing in the spring (KBM Resources Group n.d.).

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

- Operational issues associated with terrain constraints (e.g., 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 MFFN community is reliant on air-transportation of the goods needed to sustain people living in the community, and have limited access to basic social, health, education and wellness services. This has resulted in high costs to ship goods and materials, food and fuel to the community, as well as affecting basic quality of life of MFFN community members. 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 MFFN community for over 20 years.

The need for all-season access of northern communities is also identified in *Building Better Lives: Ontario's Long-Term Infrastructure Plan 2017* (MOI 2018). The North is noted as vulnerable to the effects of climate change where winter road systems are relied on for access and transportation of supplies. In addition, the provincial government

has committed to provide funding to plan for an all-season road from Nakina to MFFN. Ontario's *Growth Plan for Northern Ontario, 2011* (Ministry of Infrastructure and Ministry of Northern Development, Mines and Forestry 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. The EA will include the consideration of construction and operation activities for a CAR. Options for road ownership, operations and maintenance activities, and liability are being considered in discussion with the Province.

Project engineering is currently at the conceptual level; therefore, it is recognized that Project components described in this ToR could change during the EA as additional information becomes available through engineering progress, completion of environmental investigations and studies, further identification and refinement of alternative methods, and input received through the Indigenous Knowledge and consultation programs. At this time, the Project components are anticipated to include, but may not be limited to, the following:

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

The following sections provide preliminary information on the anticipated Project components of the Project. It is recognized that the description of the proposed Project will evolve through advancement of the EA process. Therefore, the description of the Project will be refined throughout the EA based on the results of the advancement of the Project design, environmental investigations and studies, identification / refinement of alternative methods, and Indigenous Knowledge and consultation programs. The description will be sufficiently detailed to identify and assess potential effects of the Project during the Project phases.

Evolution of the Project throughout the EA process could change the alternative routes that have been identified in this ToR for assessment and evaluation in the EA. Further information on alternatives for consideration, and the approach for their assessment and evaluation is provided in **Section 6.3** and **Section 8**. The Project description will be provided in greater detail in the EA.

5.2.1 Project Components

5.2.1.1 Road

The CAR is anticipated to 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 to accommodate construction activities, access, borrow areas, aggregate source areas, quarry sites, and temporary infrastructure such as staging areas, camps, and debris and / or timber stockpiles. The preferred route of the 100 m ROW for the CAR will be identified in the EA. 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 MTO's Highway Classification, Design Speed (i.e., 80 km / hr), *Transportation Association of Canada Geometric Design Guide for Canadian Roads*

(Transportation Association of Canada 2017b) as supplemented by the *Geometric Design Supplement* (Transportation Association of Canada 2017a), the *Canadian Highway Bridge Design Code* (CSA 2014), the *Roadside Design Manual* (MTO 2017) administered by the MTO and *MTO's Guidelines for the Design of Bridges on Low Volume Roads* (MTO 2016).

The predominant building materials will be blasted rockfill and composite excavation material capped with granular surface material. If feasible, the majority of blasted rockfill is expected to 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. A cross-section consisting of a 10 m top width and recoverable side slopes of 4:1 is proposed.

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 to carry two lanes of traffic with appropriate shoulder widths. The foundation support for the bridge abutments are expected to consist of driven steel piles, drilled concrete piles or concrete spread footings.

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 CAR.

Culverts will range from small diameter corrugated steel pipes for overland water drainage to large concrete box or steel arch culverts for smaller waterways. The expected culvert sizes are a minimum of 800 millimetres (mm) in diameter for small diameter corrugated steel pipe culverts, approximately 3 m to 4.5 m square for large concrete box culverts, and ranging from approximately 3 m up to 8 m in diameter with a semi-circular shape for large steel arch culverts.

5.2.1.3 Quarries, Borrow Areas, and Aggregate Source Areas

Quarries[7], borrow areas[8] and aggregate source areas[9] 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 is expected to come from quarry sites adjacent to the proposed CAR. Where this is not possible, potential sources further away, possibly outside the preliminary study area (**Section 7.1.1**) may need to be developed for constructing the Project. 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 volume and type of borrow materials, and therefore number of quarries, borrow areas, and aggregate sources areas required will be determined during the EA.

5.2.1.4 Temporary Infrastructure for Construction

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, borrow areas and aggregate sources areas. It is anticipated that 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, borrow areas and aggregate source areas. The temporary access roads will be cleared, but not grubbed, to 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. The

---

7. *"Quarry sties" generally refers to solid rock outcropping or solid rock areas near surface where material is harvested through blasting and processing.*
8. *"Borrow areas" generally, refers to areas with fine-grained material such as clays or tills where material is harvested by excavation.*
9. *"Aggregate source areas" generally, refers to areas of natural sand and gravel deposits where material is harvested by excavation.*

Project will take into consideration MRNF recommended practices for the construction of access roads on Crown Land provided in their publication of *Environmental Guidelines for Access Roads and Water Crossings (MNR 1990).*

Temporary construction camps, staging areas and stockpile areas are anticipated to be established at various locations along the ROW and / or near other Project components. These Project components are proposed to support crews, and to store equipment, vehicles, materials and supplies.

5.2.2 Project Activities

The Project will be executed in three main phases, which are briefly described below (**Figure 5-1**). Each phase will be further detailed as part of the EA.

- **Planning and Design Phase:**

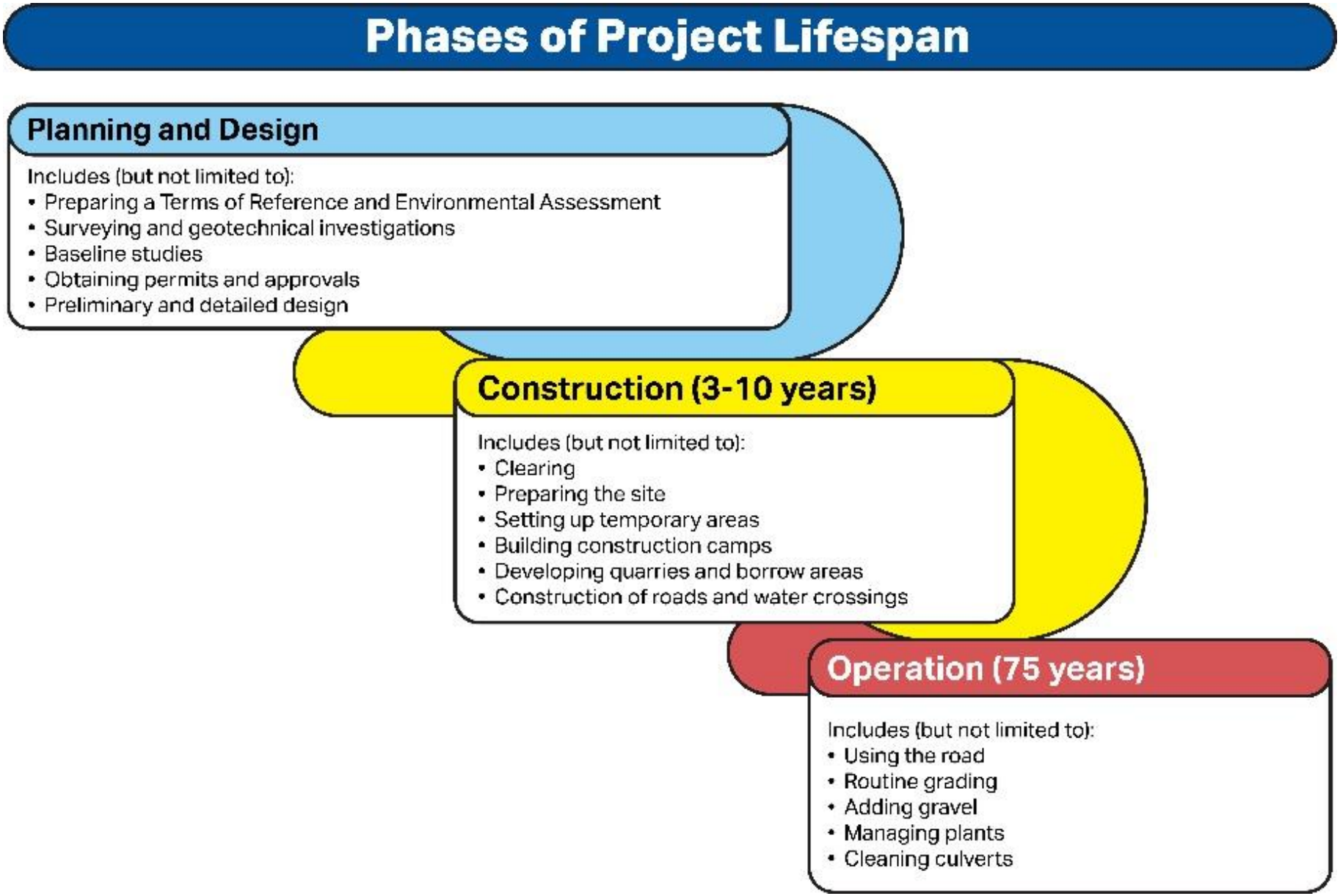
  The first step in project planning and design is the process of defining the undertaking, which includes the identification of activities and need for associated infrastructure. Once the project has been defined, possible alternatives are identified, and a review of legislation is undertaken to determine approvals that will be required. For this Project, a decision under the Ontario EAA is required. Therefore, planning and design has included the preparation of a ToR. Should the ToR be 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; EA findings will be incorporated into the detailed design as appropriate. It is anticipated that project planning will take approximately three to five 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 also need to acquire permits and approvals from provincial, federal government and other jurisdictional agencies, which are anticipated to 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 access, borrow areas, quarries, aggregate source areas, and temporary infrastructure. Once site preparation activities have been completed, construction camps will be built, quarries, borrow areas, and aggregate source areas will be developed, and bridges and culvert crossings for the CAR and temporary access roads will be constructed. Materials, including rock fill, aggregate and composite material will be prepared, 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. The CAR may be constructed using one or more construction fronts. The number of construction fronts will be determined as part of detailed design. Once the CAR is constructed, temporary infrastructure used to facilitate construction will be demobilized, decommissioned and restored, or blocked to discourage public use but facilitate access for ongoing road maintenance. It is anticipated that this phase of the Project will take between 3 to 10 years. Construction will partially overlap with the planning and design phase, with construction anticipated to start approximately one year following EA approval.

  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. However, the construction sequence to build the CAR will be confirmed through detailed design and will be contingent on several factors such as availability of funding, material availability, type of construction equipment, labour and site accessibility.

Figure 5-1: Project Schedule



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

- Backhoes;
- Clearing equipment;
- Concrete batch plants;
- Cranes;
- Crushing Spreads;
- Dozers;
- Drilling rigs;
- Excavators;
- Fuel Tanks;
- Graders;
- Half ton trucks;
- Hauling trucks;
- Loaders;
- Packers; and
- Water trucks

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, snow clearing, ROW maintenance of sightlines, sign maintenance and cleaning culverts. Vehicles anticipated to use the CAR include personal vehicles (e.g., cars, vans, small trucks, motorcycles), as well as commercial and industrial vehicles including larger trucks up to the legal road limits on weight and size. Where possible, aggregate materials will be sourced from borrow and aggregate source 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. Land for snow plough and truck turnarounds and storage of both equipment and materials will be included in the detailed design. Road maintenance will follow typical MTO standards and requirements. Vegetation control applications are typically done without the use of chemicals and road maintenance in the winter is typically done using sand and snow ploughs (not salt). However, the EA will conservatively assess the potential effects of salt, pesticide and dust suppressant use, and where effects are predicted recommend impact management measures. The operations phase starts once construction activities are complete and lasts for the life of the Project. The CAR will be operational for at least 75 years based on the expected timeline for when major refurbishment of road components (e.g., bridges) is anticipated.

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

- **Emissions:**

During construction activities, atmospheric emissions including greenhouse gases (GHG) will be created and released into the surrounding environment from on-site construction vehicles, equipment, machinery and activities associated with the 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. Dewatering or water-taking activities, if required, will be performed by the contractor in accordance with applicable environmental regulations. 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. Any sewage during construction will be contained temporarily on-site and then disposed of off-site in an approved waste facility capable of accepting domestic sewage.

- **Wastes:**

  Waste management and disposal for the Project will be done in accordance with Ontario's *Environmental Protection Act, 1990*. In preparation for construction, a Waste Management Plan will be developed and provide details such as types of waste, volumes of water, waste storage and disposal.

  The Project's ROW clearing will involve removal of timber and grubbing. Usable timber will be segregated and collected for reuse. Timber and materials that would typically be considered unusable may also be stockpiled to restore areas temporarily disturbed during construction. All other unusable timber and material will be collected and burned at designated sites. When on Crown land, forest resources licencing requirements will be adhered to.

  Approved waste facilities in the vicinity of the Project will be considered and identified during the EA. The closest waste management site to the Project is the MNRF Hanover Tower Road Waste Disposal Site (Certificate of Approval #A590005, issued February 3, 1981), which is located immediately southwest of the intersection of Anaconda and Ogoki Road, approximately 25 km by road north-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.

Further information on emissions, discharges and wastes during construction and operation will be provided in the EA.

Currently, there are no plans for decommissioning the CAR. Discussions are ongoing between MFFN and the Province regarding ownership and 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 components include: access, quarries, borrow areas, aggregate sources areas and temporary infrastructure (**Section 5.2.1.4**) 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, government agencies and interested persons. 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 2020). 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” for this Project may include options such as construction and operation of a new all-season road, 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) and associated temporary infrastructure for construction.

6.2 Approach to Considering “Alternatives To”

Ontario’s *Building Better Lives: Ontario’s Long-term 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 effects of climate change, particularly in communities that rely on seasonal winter roads. The Project is identified in the *Building Better Lives: Ontario’s Long-term Infrastructure Plan* (MOI 2018), 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. This decision was made in discussion with MFFN, which led to the identification of the community’s p[reference for an all-season road. A CAR would be the only viable option that could provide 24-hour access to the provincial highway network since no alternative to a road can provide the same level of freedom of movement for community members to travel outside of the community. Therefore, a range of alternatives to the CAR were previously determined as less preferable than an all-season road based on the needs and preference of MFFN. 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 2020). 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 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. The Province is also committed to developing regional transportation plans to keep goods and people moving across the province. Regional planning is underway for Northern Ontario (Ministry of Finance 2019).

Given MFFN's unique circumstances as a remote First Nation community, an airport with non-daily service and high costs per trip, a winter road system that only provides seasonal service and is increasingly unreliable, and a railroad that does not provide freedom of movement are not reasonable alternatives to consider as they do not meet the community needs. Therefore, the reasonable range of alternatives that are within MFFN's ability to implement is limited to an all-season road. Furthermore, MFFN's voluntary agreement with MECP was to undertake an Individual EA for the "construction, operation and maintenance of an all-weather multi-use road" between Painter Lake road and MFFN. Since the Project was identified to be an all-season road before the study for this Project commenced under the EAA, MFFN will not conduct an assessment of alternatives to the undertaking.

However, the Code of Practice does require proponents of an undertaking to consider the "do nothing" alternative. The "do nothing" alternative 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 MFFN community (MFFN 2017).

Not proceeding with the Project does not address the problem of unreliable community access to MFFN and limits 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 benefits within the region, and is in keeping with the *Building Better Lives: Ontario's Long-term Infrastructure Plan* (MOI 2017), the Growth Plan (Ministry of Infrastructure and Ministry of Northern Development, Mines and Forestry 2011) and the MFFN voluntary agreement with MECP. For the above noted reasons, the EA will consider and assess the construction, operation and maintenance 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 of a CAR and associated temporary infrastructure for construction. Alternative routes for consideration in the EA are provided in **Section 6.3.1**. The alternative temporary infrastructure, including quarries, borrow areas and aggregate source areas, to support construction of the CAR will be identified in the EA.

For decades, interests and concerns of the MFFN community have identified a strong desire for improved all-season community access. The development of the alternative routes identified for consideration in the EA has evolved through previously completed studies and ongoing processes, including the following:

- Winter Road Realignment Study (Neegan Burnside Ltd. 2009);
- 2011 MFFN Winter Road Realignment / All Weather Road Project, Feasibility Analysis and Business Plan Report (W.L. Lees & Associates ltd. and Marten Falls Logistics-LP 2011), commonly referred to as the *2011 Bill Lees Report*;
- 2011 – 2012 MFFN Winter Road Realignment Project (KBM Resources Group n.d.);
- 2011 – 2013 Industrial North-South Proposed Road Corridor, Cliffs Chromite Project EA, Technical Supporting Document, Project Alternatives Assessment (Cliffs 2013);
- MFFN Community Based Land Use Plan (CBLUP) Terms of Reference (MFFN and MNR 2013) and ongoing planning;
- 2017 MFFN All-Season Community Access Road – Project Proposal (MFFN 2017);
- August 2017 funding announcement (Government of Ontario 2017);

- 2019 Band Council Resolution to support proceeding with the alternative routes of the western corridors in the EA process; and
- Ongoing consultation and studies in support of the Project.

The *Marten Falls First Nation Community Access Road Supporting Document – Alternatives Development* (AECOM 2020) provides a detailed account of the 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 2020.

MFFN began investigating opportunities in 2007 to realign and improve the winter road for eventual upgrade and construction of an all-season road for community access (Neegan Burnside ltd. 2009, W.L. Lees & Associates ltd. and Marten Falls Logistics-LP 2011). Around the same time (2009 – 2013), Cliffs Natural Resources was studying the development of a chromite deposit in the Ring of Fire[10], which included the construction and operation of an all-season road for the purpose of moving people, supplies and extracted resources north-south between the Ring of Fire and provincial highway network.

In the spring of 2016, MFFN secured provincial funding to research and explore options for connecting the community to the existing provincial transportation network, including permitting and approval support (MFFN 2017). The MFFN community proceeded with an initiative for an all-season road with an intended use for community access only. The initiative was documented in the 2017 MFFN All-Season Community Access Road Project Proposal (MFFN 2017), which is a precursor to initiation of the Project as a study under the EAA. Per direction of MFFN Chief and Council at this time, a Project Team retained by MFFN would identify potential routes for the CAR based on the findings of previous studies for winter road realignment and proposals by others for road corridors in the Far North. Three routes within a 5 km-wide corridor were identified as potential alternatives and were based on road alignments identified in previous studies.

The Project Proposal report was submitted to the MECP, ENDM, MNRF and MTO in spring 2017. The intent of the submission was to determine next steps and the EA process to be undertaken. Following review of the report, the Province entered discussions with MFFN about funding an EA process, during which the Province disclosed that funding would only be available for a single multi-purpose all-weather access road. That is, the provincial government would provide funding to plan all-season road access to the Ring of Fire and that as part of this plan they would work with Indigenous communities, including MFFN, to build all-season access roads to communities. The announcement by the province brought forward new considerations for MFFN with respect to identifying potential alternative routes to be considered in the EA, including:

- health and safety concerns regarding industrial use, and associated mining-related traffic passing through the community;
- possible implications on health and safety, and overall community well-being related to uncontrolled community access;
- children playing on and potentially jumping off a high span bridge located close to the community;
- presence of Indigenous value sites located close to the Ogoki River;
- availability of quarry, borrow areas and aggregate source areas to support construction and maintenance activities;
- change of road use to multi-purpose would potentially provide greater economic benefit and improved access to supplies; and
- chromite should travel north to south to support MFFN's economic interest in Ring of Fire development.

10. The Ring of Fire is a remote areas of northwestern Ontario, which is an area of significant mineralization and potential large mineral reserve in Ontario (KBM Resource Group 2014).

In April 2018, MFFN signed an agreement with the MECP, thereby confirming the environmental planning process to be undertaken for the Project. The agreement with the Province was to prepare an Individual EA under the EAA and preliminary design of a CAR built to meet industrial use specification to accommodate multi-purpose use by MFFN community and industrial proponents.

Ongoing investigations were undertaken during the 2018 field season to characterize the existing environment. Consultation also occurred to obtain input on values and features of importance to the MFFN community, and feedback related to the change of the road use to multi-purpose. Based on the additional community consultation and outreach efforts following the 2017 Project Proposal (MFFN 2017), four potential alignments for an all-season road were identified.

6.3.1 Alternative Routes for the Environmental Assessment

A study under the EAA was initiated by MFFN in April 2019 when the NoC 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. These corridors encompassed refined alignments of the 2017 Project Proposal (MFFN 2017), where 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, these four alignments were shared through consultation as potential alternatives that would be reviewed to identify the reasonable range of alternative routes that may be considered for assessment and evaluation in the EA.

Feedback received during winter and spring 2019 consultation with MFFN determined 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 MFFN Chief and Council. These concerns included, but were not limited to, a large bridge crossing located close to the community, health and safety concerns related to mining-related traffic through the community, water management during construction, availability of borrow sources and proximity to Indigenous value sites. Since some of these concerns could be attributed to the road being for multi-purpose use, MFFN signed a Band Council Resolution on July 31, 2019 to only consider the western alternative routes (Alternative 1 and Alternative 4) moving forward throughout 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 were not considered reasonable alternative methods for the Project and removed from consideration for the reasonable range of alternatives for the EA.

Therefore, the reasonable range of alternative methods for consideration for assessment and evaluation in the EA are Alternative 1 and Alternative 4 as shown on **Figure 6-1.** Each alternative starts at Painter Lake Road and runs 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 (Cliffs 2013). The alternative routes parallel, overlap and cross each other at multiple locations. The key distinguishing points of the 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 mineral claims before connecting east-west to MFFN. A corridor approximately 10 m to 20 m wide along a majority of the north-south portion of the alternative has limited vegetative growth from historical clearing that had been undertaken to facilitate geotechnical work in the region (Canada Chrome Corporation 2010).

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. An Ogoki River crossing option to the west is also part of this alternative.

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

Key Map
Caribou Lake
Winisk Lake
Windsor Lake
Missisa Lake
Fort Hope 64
Marten Falls 65
Albany River
Lake St. Joseph
Sturgeon Lake
Armstrong
Aroland First Nation
Nakina
Lake Nipigon
Geraldton
Hearst
Hornepayne
Manitouwadge
Kabinakagami Lake
Lake Superior
Attawapiskat
Map Location

Legend

Route Alternatives
- 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

Aug, 2020	1:600,000 * when printed 11"x17"	Data Sources: MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

AECOM

Figure 6-1

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-06_Fig6-1_AlternativesRoutes_R1_60593122.mxd
Date Saved: 8/24/2020 8:17:10 AM User Name: Stephanie.Clark

While investigating construction feasibility of the alternative routes in June 2020, a newly identified potential crossing location of the Ogoki River for Alternative 4 was identified to the west as shown on **Figure 6-1**. This western crossing option of the Ogoki River presents numerous benefits including, but not limited to, the following.

- **Shorter Span Crossing of the Ogoki River**:
  Alternative 4 requires a large-span crossing of the Ogoki River. The constructability of large-span crossings is more challenging than shorter span crossings; therefore, the location selected to cross a large waterbody has technical and cost implications. The constructability of the western crossing option of the Ogoki River is improved because the span length is approximately 200 m shorter. This would allow for the installation of a single span bridge of the Ogoki River rather than a multi-span bridge. It is also anticipated that a reduced span length may result in fewer effects to the environment.

- **Availability of Road Material**:
  Quarries, borrow areas and aggregate source areas are needed to construct the Project. Most of the rock required for construction is expected to come from sources adjacent to the CAR; however, depending on resource availability, some sources may need to be developed further away. There is a potentially substantial aggregate source located west of Alternative 4 near the western Ogoki River crossing option that could be a potential source of construction materials for the Project. A CAR routed along this western alignment would reduce the length and / or remove the need for a haul route to access the aggregate should it be developed for the Project. A CAR routed further east would require the construction of a temporary haul road to obtain access to this potential source, which would have additional environmental effects and cost.

- **Schedule and Cost Implications**:
  The above listed factors would lead to considerable reductions in terms of Project construction timelines and Project cost. A shorter-span crossing of the Ogoki River and easier access to construction material would reduce both the length of time required to construct the Project and the cost of construction.

The specific location of the Project components of the CAR, including the roadway, is not yet known and will be determined in the EA. Throughout the planning and design phase, modifications to Project design are anticipated to occur based on information that arises through advancement of design, environmental investigations and studies, and the Indigenous Knowledge and consultation programs. Therefore, it is possible that additional viable alternative routes may be identified during the EA that warrant consideration. Information that becomes known may also suggest all of or portions of Alternative 1 and / or Alternative 4 are no longer considered reasonable. In the event these cases occur during preparation of the EA, consideration will be given to determine whether changes to route alignment and / or alternative routes should be reflected in the EA as appropriate.

Should modifications to the alternative routes or alternatives identified during the EA be located on lands outside of the preliminary study area identified in **Section 7.1.1**, the study area would be adjusted to include these lands. Potentially affected areas would be subject to characterization of existing conditions including Indigenous Peoples' rights and interests, assessment and evaluation, and the changes would be consulted on with neighbouring Indigenous communities and interested persons. Information on the approach for the assessment and evaluation of alternatives is provided in **Section 8**.

7. Existing Environment and Potential Environmental Effects

7.1 Description of the Environment and Methods to Characterize 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. This section also identifies the methods that will be used to characterize the existing environmental conditions. The methods are the 'tools' that will be used to obtain information, such as field investigations and studies planned for the Project.

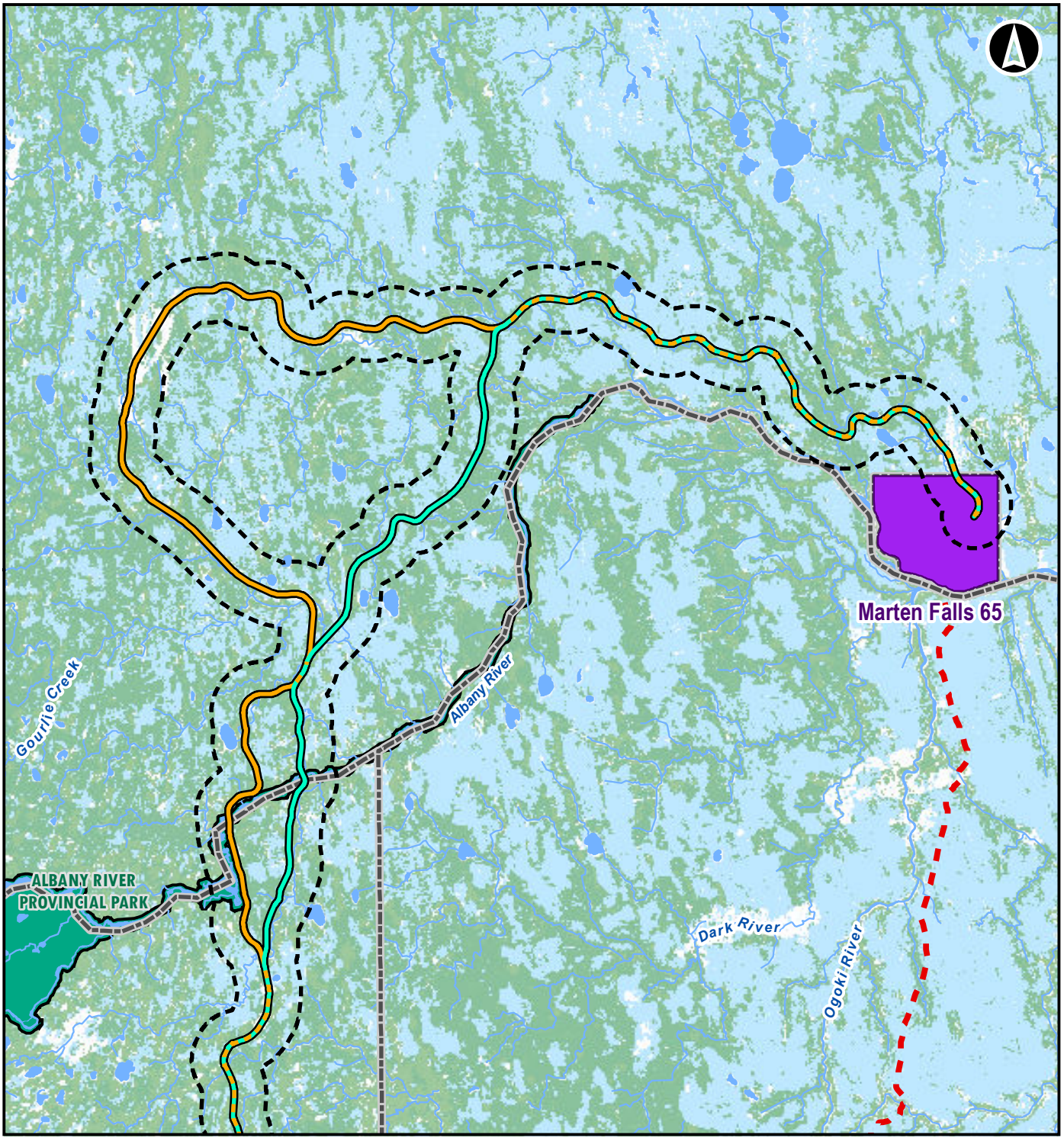
7.1.1 Preliminary Study Area

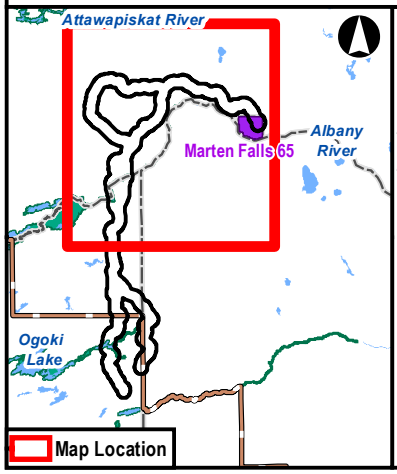
The description of the environment provided in **Section 7.1.4** is for the general area of the Project, which includes the area encompassing the alternative routes shown on **Figure 6-1**. However, the Code of Practice requires a study area for the EA be identified in the ToR (MECP 2020). A study area is the area within which activities associated with an undertaking will occur and where potential environmental effects will be studied.

The preliminary study area for the purposes of the ToR is shown on **Figure 7-1**. The preliminary study area includes the area within 2.5 km of each side of the centreline of each alternative route (resulting in a 5 km wide study area). The preliminary 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 provides flexibility for route refinements that may arise during the EA process through advancement of design (e.g., adjustment of the road alignment to avoid features).

The specific location of Project components, including the roadway, quarries, borrow areas, aggregate source areas and temporary infrastructure, are not yet known and will be determined in the EA. While most of the Project components are expected to be located within the preliminary study area, benefits (e.g., reduced environmental disturbance, avoidance of sensitive features, technical considerations, concerns received through consultation) for locating Project components on lands outside of the 5 km wide study area may become known during the EA process. If the need to locate Project components outside the 5 km wide study area is determined to be required or of benefit to the Project, the study area would be adjusted.

Therefore, the 5 km wide study area is considered preliminary and will be refined in the EA through the identification of discipline-specific local and regional study areas. In some cases, a discipline-specific study area may be larger than the preliminary study area (e.g., caribou), and are anticipated to be identified shortly after the commencement of the EA.





Legend

- Study Area
- **Route Alternatives**
  - Alternative 1
  - Alternative 4
- **General Features**
  - MFFN Existing Winter Access Road
  - Provincial Park
  - Wetlands
  - Far North Boundary
  - First Nation Reserve
  - District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Preliminary Study Area

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

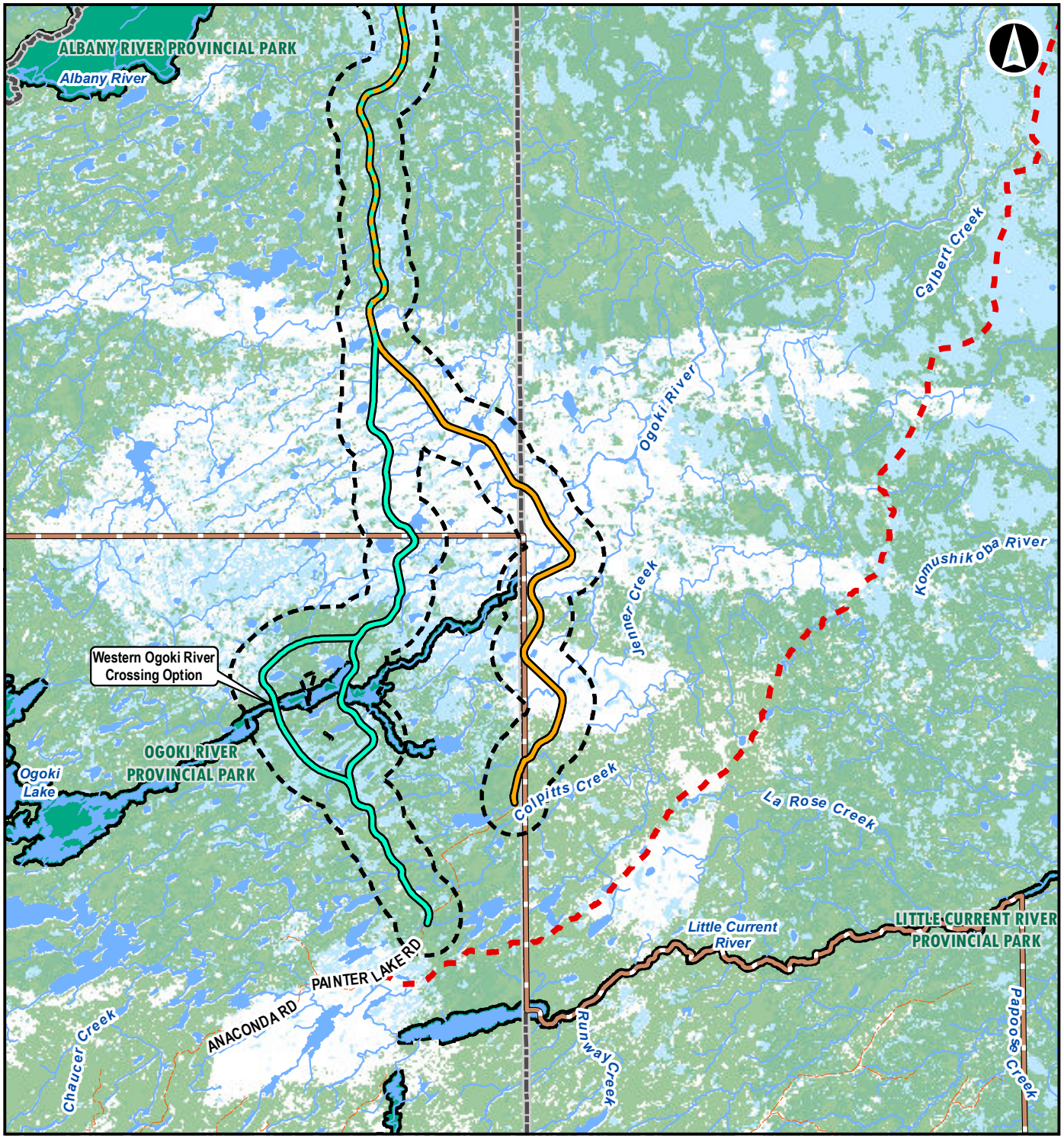
Aug, 2020	1:450,000 * when printed 8.5"x11"	**Data Sources:** MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

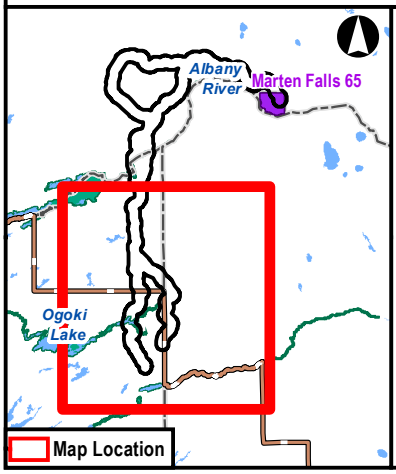
AECOM

Figure 7-1A

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Update\MXD_2020-08-28_Fig7-1a_RouteAlternativesMapBook_R1_60593122.mxd
Date Saved: 8/28/2020 8:31:54 AM User Name: Stephanie.Clark





Legend

- Study Area
- **Route Alternatives**
  - Alternative 1
  - Alternative 4
- **General Features**
  - Resource / Recreation Road
  - MFFN Existing Winter Access Road
- Provincial Park
- Woodlands
- Wetlands
- Far North Boundary
- District Municipal Boundary

Marten Falls First Nation
All Season Community Access Road

Preliminary Study Area

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

Aug, 2020	1:450,000 * when printed 8.5"x11"	**Data Sources:** MNRF, MMAH, NRCAN
P#:60593122	Rev:00	

AECOM

Figure 7-1B

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-28_Fig7-1b_RouteAlternativesMapBook_R1_60593122.mxd
Date Saved: 8/28/2020 8:33:28 AM User Name: Stephanie.Clark

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 for the general vicinity of the Project. The information included in the ToR will be augmented during the EA by field investigations and studies, Indigenous Knowledge shared, and input from neighbouring Indigenous communities, government agencies and interested persons. The more detailed description of the environment will be provided in the EA.

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

Environmental Component	Discipline
Indigenous Peoples' Rights and Interests	▪ Aboriginal and Treaty Rights and Interests
Natural (Physical and Biophysical)	▪ Atmospheric Environment ▪ Acoustic Environment ▪ Physiography, Geology[1], Terrain and Soils ▪ Surface Water ▪ Groundwater ▪ Vegetation ▪ Wildlife ▪ Fish and Fish Habitat
Social, Economic and Built Environment	▪ Social ▪ Economy ▪ Land and Resource Use ▪ Human Health and Community Safety ▪ Visual Aesthetics
Archaeology and Cultural Heritage	▪ Archaeological Sites and Resources ▪ Built Heritage Resources and Cultural Heritage Landscapes

Note: 1. Geology includes geochemistry, bedrock geology and overburden geology.

7.1.3 Methods to Characterize the Environment during the Environmental Assessment

The existing environment that may be affected by the Project 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 includes, but is not limited to the following:

- Review of available data and information;
- Data collected through field investigations and studies;

- Data obtained through MFFN's Data Sharing Agreements with the MNRF (December 2019) and MECP (October and November 2019);
- High resolution imagery obtained from Light Detection and Ranging (LiDAR) data;
- Geographic Information System data analysis;
- Modelling, where applicable;
- Input from government and interested persons;
- Indigenous Knowledge shared by Indigenous communities; and
- Marten Falls First Nation Community Based Land Use planning.

The EA will document the methods and results of field investigations and studies that are completed in support of the EA. Project-specific field investigations and studies will be undertaken for input into the assessment and evaluation of effects of the alternatives and to support other permits and approvals required for the Project (**Section 13**). The field investigations and studies currently planned are summarized in **Section 7.1.4** but may change based on the results of ongoing consultation with neighbouring Indigenous communities, government agencies and interested persons, 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 based on readily available data. Information was sourced from:

- records published through secondary sources;
- information shared by the MFFN CBLUP Team;
- previous studies; and
- government agencies.

Indigenous Knowledge is an important information source that must contribute to the characterization of existing environmental conditions, where possible. Given the sensitive nature of Indigenous Knowledge, sharing agreements must be in place prior to the inclusion of such knowledge (**Section 3.4.2.1**). Efforts to finalize Indigenous Knowledge sharing agreements for the Project are ongoing at the time of preparing the ToR. Therefore, Indigenous Knowledge available to characterize the existing conditions is currently limited. However, the description of the existing environment that will be included in the EA will incorporate applicable Indigenous Knowledge provided, where possible. Given that the Project falls primarily in the traditional territory of MFFN (including some areas of shared territory), and the MFFN community has started the CBLUP process, MFFN has an appreciation for highly valued areas as well as where information on the existing environment is lacking and additional investigation is needed. This understanding will guide efforts to collect and share Indigenous Knowledge to characterize the existing environment.

In addition to Indigenous Knowledge, it is expected that non-Indigenous Knowledge information relevant to the Project may be shared by Indigenous communities as consultation and engagement proceeds. Information of this nature and relevant to the Project will also be incorporated into the EA.

The Project is located within 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 (*Picea mariana*) 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 (e.g., bogs, fens, swamps and marshes) of the Albany River watershed and several of its subwatersheds. Surface water moves generally in a north-easterly 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 Aboriginal and Treaty Rights and Interests

Aboriginal and Treaty Rights

The Project is located within the James Bay Treaty - Treaty Number 9 (made in 1905 and 1906) and Adhesions made in 1929 and 1930 areas as shown in **Figure 7-2**. 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 Inc.

Aboriginal and Treaty Rights are protected under section 35 of the *Constitution Act, 1982*, through which existing Aboriginal and Treaty Rights of Aboriginal peoples[11] in Canada are recognized and affirmed. Aboriginal and Treaty Rights include, but are not limited to, hunting, fishing and gathering, as set out in treaties with the Crown or stemming from practices, customs or traditions that are integral to the distinctive culture of the Aboriginal community claiming the right. The Crown has a Duty to Consult and, where appropriate, accommodate Aboriginal communities when it has actual or constructive knowledge of an established or asserted Aboriginal or Treaty Right and contemplates conduct that may adversely affect that right. Procedural aspects of consultation may be delegated to a third party or proponent. However, the Duty to Consult rests with the Crown.

As part of these rights, the Governments of Canada and Ontario have the Duty to Consult Indigenous communities for this Project. The Province of Ontario (MECP and ENDM) and MFFN entered 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. The Marten Falls-Ontario MOU on Shared Consultation Responsibilities was signed on January 7, 2020 and defines the roles and responsibilities of both parties in regard to the consultation of Indigenous communities whose Aboriginal or Treaty Rights may be adversely affected by the Project and interested persons (**Appendix D**).

11. The term, Aboriginal, is used rather than Indigenous to reflect the definitions provided in the Constitution Act, 1982 and specifically s.35 (2), including Indian, Inuit and Métis people in Canada.

Weenusk First Nation
Kitchenuhmaykoosib First Nation
Kitchenuhmaykoosib
Wapekeka First Nation
Kasabonika Lake First Nation
Kasabonika
Attawapiskat First Nation
James Bay
Wawakapewin First Nation
Webequie First Nation
Kingfisher Lake
Kingfisher Lake First Nation
Wunnummin Lake
Wunnumin First Nation
Webequie
Attawapiskat
Attawapiskat First Nation
Summer Beaver
Nibinamik First Nation
Fort Albany First Nation
Neskantaga First Nation
Lansdowne House
Kashechewan First Nation
Eabametoong First Nation
Fort Hope
Marten Falls First Nation
Pickle Lake
Osnaburgh House
Mishkeegogmang First Nation
599
Aroland First Nation
Armstrong
643
Nakina
Lake Nipigon
584
634
Animbiigoo Zaagi'igan Anishinaabek First Nation
Greenstone
Long Lake No.58 First Nation
Longlac
Constance Lake First Nation
Calstock
Hearst
Mattice
Ginoogaming First Nation
Geraldton
Jogues
Opasatika
Val Rita
Harty
Kapuskasing
580
Jellicoe
Caramat
583
Beardmore
Hillsport
527
Macdiarmid
Hornepayne
11
Manitouwadge
Oba
585
628
614
582
17
631
586
591
627
102
589
Red Sky Métis Independent Nation
Thunder Bay
587
519
101
588
595
608
651
593
61
547
Lake Superior

Legend

- Study Area

Route Alternatives
- Alternative 1
- Alternative 4

Neighbouring Indigenous Communities
- First Nation Reserve
- Mètis Nation of Ontario, Region 2

General Features
- City/Town/Settlement
- Freeway
- Highway
- Major Road
- Resource / Recreation
- Railway
- MFFN Existing Winter Access Road
- Far North Boundary
- District Municipality
- Provinical Park
- Waterbody

Treaty Boundaries
- Adhesion to Treaty, No. 9, 1929-1930
- Treaty No. 3, 1873
- Treaty No. 60, 1850
- Treaty No. 9, 1905-1906

Marten Falls First Nation
All Season Community Access Road

Treaty Boundaries

0 10 20 40 60 80 100
Kilometres

Datum: NAD 1983 UTM Zone 16N

Aug, 2020	1:2,500,000 * when printed 11"x17"	**Data Sources:** Derived by KBM Resources Group n.d. MNRF, MMAH, NRCAN, MLAS
P#:60593122	Rev:00	

AECOM

Figure 7-2

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-28_Fig7-2_TreatyBoundaries_R01_60593122_.mxd
Date Saved: 8/28/2020 12:24:42 PM User Name: Stephanie.Clark

Table 7-2 provides brief community profiles for all Indigenous communities that have been identified to be consulted on the Project. MFFN is currently undertaking consultation with these communities (**Section 10**). The consultation will continue throughout the EA as per the interest expressed by each community.

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 preliminary study area.

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 Inc. 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 preliminary study area (Government of Ontario 2019b). At the time of preparing the ToR, there are no additional comprehensive or specific federal land claims in the vicinity of the Project, beyond those mentioned in **Table 7-2** under Ginoogaming First Nation and Eabametoong First Nation.

MFFN has initiated a CBLUP with the MNRF 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 planning 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 identified in **Table 7-2**. Aroland First Nation and MFFN have undertaken work together to collect Anishinabek Knowledge within the territory they share. The CBLUP process respects the exercise of Aboriginal and Treaty Rights and traditional territory of neighboring Indigenous communities and supports open dialogue to identify neighboring Indigenous community interests and mutually desirable planning outcomes.

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Animbiigoo-Zaagi'igan Anishinaabek First Nation ***Tribal Council:*** Nokiiwin Tribal Council	Animbiigoo-Zaagi'igan Anishinaabek First Nation (AZA) is signatory to the Robinson-Superior Treaty 1850 and is affiliated with the Nokiiwin Tribal Council. The AZA cultural affiliation is Ojibway. There is one AZA reserve, the Lake Nipigon Reserve (1,269.9 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 registered members live on the Lake Nipigon Reserve and the remaining approximately 500 registered members live elsewhere (ISC 2019), primarily in other Ontario communities including Beardmore, Jellicoe, Geraldton and Thunder Bay. The First Nation has a Custom Electoral Governance System with one Chief and four Councillors elected every three years. AZA's administrative office is located in Beardmore, Ontario (AZA 2019).
Aroland First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Aroland First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. Aroland First Nation is comprised of an amalgamation of members with ties to Eabametoong First Nation, MFFN, Ginoogaming First Nation, Long Lake #58 First Nation and Fort William First Nations, and with cultural affiliations to Oji-Cree and Ojibway (Aroland First Nation 2019). Aroland Indian Settlement is the primary community for over half of the approximately 700 registered Aroland First Nation members (ISC 2019, Aroland First Nation 2019). The community is located approximately 170 km southwest of MFFN, and approximately 20 km west of Nakina on Hwy 643. According to Indigenous Services Canada (ISC 2019), 22 registered members live on 'own reserve' and the remaining 709 registered members live elsewhere. However, Aroland Indian Settlement is not a reserve and has no statutory basis under the *Indian Act*. Aroland First Nation has a Custom Electoral Governance System with one Chief and seven Councillors elected every two years. Aroland First Nation is engaged with the Far North Branch of MNRF for a CBLUP but is not actively planning.
Attawapiskat First Nation ***Tribal Council:*** Mushkegowuk Council ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Attawapiskat First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and Nishnawbe Aski Nation. Omushkegowuk (people of Attawapiskat) are represented by the Mushkegowuk Council for their Mushkegowuk Aski (traditional territory). The Attawapiskat cultural affiliation is Swampy Cree. Attawapiskat First Nation is comprised of two reserves: Attawapiskat Reserve 91a (235.8 ha), the permanent community, and Attawapiskat Reserve 91 (27,040.1 ha) (ISC 2019). Attawapiskat Reserve 91 is located at the mouth of the Attawapiskat River on James Bay, approximately 278 km northeast of MFFN. Attawapiskat Reserve 91a is located approximately 200 km north of MFFN. The reserves are accessible by air, water and winter road only. 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 three years.
Constance Lake First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Constance Lake First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. 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), which serves as the primary residential community, and English River 66 Reserve on the Kenogami River (3,108 ha) (ISC 2019). The Constance Lake 92 Reserve is located approximately 240 km southeast of MFFN, and the English River 66 Reserve is located 74 km southeast of MFFN. Both of the Constance Lake Reserves are accessible by way of Highway 11. As of July, 2019, 871 of the 1,761 registered members are listed as living on reserve on the Constance Lake 92 Reserve (ISC 2019). Constance Lake First Nation uses the *Indian Act* Electoral Governance System with one Chief and six Councillors elected every two years. Constance Lake First Nation is actively working on a Draft CBLUP; the Terms of Reference for the plan was approved in 2013.

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Eabametoong First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Eabametoong First Nation is a signatory of Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The Eabametoong cultural affiliation is Ojibway. Eabametoong First Nation is comprised of a single reserve, Fort Hope Reserve 64 (25,900.3 ha) (ISC 2019). Fort Hope 64 is a remote northern community located approximately 360 km north of Thunder Bay. The community is situated on the north shore of Eabamet Lake, approximately 142 km west of MFFN. As of July 2019, approximately 1,500 registered members live on the Fort Hope 64 Reserve, with the remaining approximately 1,167 registered members living elsewhere (ISC 2019), mostly in other parts of northern Ontario. The Reserve is accessible by air, water and winter road only. According to the Federal Reporting Center on Specific Claims (Government of Canada 2020), there is one active claim by Eabametoong First Nation related to unfulfilled Treaty Land Entitlement pursuant to Treaty 9. Eabametoong First Nation uses the *Indian Act* Electoral Governance System with one Chief and five Councillors elected every two years. Eabametoong First Nation has been working on a Draft CBLUP; the Terms of Reference was approved in 2013. While not actively planning, Eabametoong First Nation works with Mishkeegogamang First Nation on a joint plan when active.
Fort Albany First Nation ***Tribal Council:*** Mushkegowuk Council ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Fort Albany First Nation is a signatory to Treaty 9 and is affiliated with the Mushkegowuk Council and the Nishnawbe Aski Nation. Prior to 1965, the community was referred to as Peetabeck Inninowuk. The Fort Albany cultural affiliation is Mushkegowuk Cree. Omushkegowak (people of Fort Albany) lived off their paquataskamik (traditional territory) until they were relocated to the Fort Albany 67 Reserve. The community originated as a Hudson's Bay Company trading post. In the 1950s, the Fort Albany 67 Reserve divided into two communities (Fort Albany First Nation and Kashechewan First Nation) due to religious differences (Five Nations 2012). The Fort Albany 67 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 approximately 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). It is accessible by air, water and winter road only. The combined total of registered member population of Fort Albany First Nation and Kashechewan First Nation is 5,211 members and is mutually referred to as 'Albany' in the Indigenous Services Canada First Nation Profile (ISC 2019). As of July 2019, 3,226 registered members of Fort Albany First Nation and Kashechewan First Nation reside on Fort Albany 67 with the remaining 1,985 registered members living elsewhere (ISC 2019). Fort Albany First Nation has a Custom Electoral Governance System with one Chief, one Deputy Chief and seven Councillors elected every two years.

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Ginoogaming First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Ginoogaming First Nation, formerly known as Long Lake 77, is a signatory of Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The Ginoogaming cultural affiliation is Ojibway and Oji-Cree. Ginoogaming First Nation is comprised of one reserve, Ginoogaming (6,978 ha), located on the northern shore of Long Lake (ISC 2019), 2 km south of Longlac and approximately 210 km southwest of MFFN. The community is accessible by road (Highway 1), air, rail and water. As of July 2019, 210 registered members reside on Ginoogaming First Nation, with 775 registered members residing elsewhere (ISC 2019). According to the Federal Reporting Centre on Specific Claims (Government of Canada 2020), there are two active claims by Ginoogaming First Nation. One of the claims is related to alleged breaches of fiduciary obligations with respect to the construction of Tote Road through the Reserve. The second is related to unfulfilled Treaty Land Entitlement pursuant to Treaty 9, with negotiations involving 7,296 acre of land and areas of interest including residential, economic and cultural uses (Ginoogaming First Nation 2019). Ginoogaming First Nation uses the *Indian Act* Electoral Governance System with one Chief and six Councillors elected every two years.
Kasabonika Lake First Nation ***Tribal Council:*** Shibogama First Nations Council ***Provincial Territorial Organization:*** Nishnawbe Aski 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 First Nation is comprised of one reserve, Kasabonika Lake Reserve (10,806.5 ha) located along the Ashweig River (ISC 2019), approximately 450 km northeast of Sioux Lookout and approximately 277 km northwest of MFFN. It is accessible by air, water and winter road only. As of July 2019, there are 1,097 registered members residing on the Kasabonika Lake Reserve with the remaining 92 members living elsewhere (ISC 2019). Kasabonika Lake has a Custom Electoral Governance System with one Chief, one Deputy Chief, one Head Councillor and four Councillors elected every two years.
Kashechewan First Nation ***Tribal Council:*** Mushkegowuk Council ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Kashechewan First Nation is not a signatory to Treaty 9, but it is affiliated with the Mushkegowuk Council and Nishnawbe Aski Nation. Omushkegowuk (people of Kashechewan) are represented by the Mushkegowuk Council for their Mushkegowuk Aski (traditional territory). The Kashechewan cultural affiliation is Cree. The community originated as a Hudson's Bay Company trading post. Prior to 1950, Kashechewan members were part of the Fort Albany First Nation (Five Nations 2012). During the 1950s, the Fort Albany 67 Reserve divided into two communities (Kashechewan First Nation and Fort Albany First Nation) due to religious differences (Five Nations 2012). The Fort Albany 67 reserve (36,345.7 ha) is shared by both Fort Albany First Nation and Kashechewan First Nation (ISC 2019), and is located approximately 300 km northeast of MFFN. It is accessible by air, water and winter road only. The combined total registered member population of Kashechewan First Nation and Fort Albany First Nation is 5,211 members and is mutually referred to as 'Albany' in the Indigenous Services Canada First Nation Profile (ISC 2019). As of July 2019, 3,226 registered members of Kashechewan First Nation and Fort Albany First Nation reside on Fort Albany 67, with the remaining 1,985 registered members living elsewhere (ISC 2019). Kashechewan First Nation has a Custom Governance System with one Chief, one Deputy Chief and 9 Councillors elected every four years. Kashechewan First Nation approved a Terms of Reference for a CBLUP in 2017, however, the community is not actively planning.

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Kingfisher Lake First Nation ***Tribal Council:*** Shibogama First Nations Council ***Provincial Territorial Organization:*** Nishnawbe Aski 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 First Nation 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 Lake 1 Reserve is the most populated of the three. It is located on the south shore of Kingfisher Lake, approximately 360 km northeast of Sioux Lookout (which is the nearest service centre) and approximately 306 km northwest of MFFN. The reserves are accessible by air, water and winter road only. As of July 2019, 557 of the 621 total registered members reside on reserve, with the remaining registered members living elsewhere (ISC 2019). Kingfisher Lake First Nation has a custom Electoral Governance System with one Chief, one Deputy Chief, one Head Councillor and three Councillors elected every two years.
Kitchenuhmaykoosib Inninuwug First Nation ***Tribal Council:*** Independent First Nations Alliance	Kitchenuhmaykoosib Inninuwug First Nation is a signatory to Treaty 9 and is affiliated with the Independent First Nations Alliance and Independent First Nation. The Kitchenuhmaykoosib cultural affiliation is Oji-Cree specifically, Anishininiimowin, Severn Cree and Northern Ojibway. Kitchenuhmaykoosib Inninuwug First Nation is comprised of a single reserve, Kitchenuhmaykoosib Aaki 84 (29,937.6 ha) on the north shore of Big Trout Lake (ISC 2019), located approximately 440 km northeast of Sioux Lookout and 361 km northwest of MFFN. It is accessible by air, water and winter road only. As of July 2019, 1,159 registered members reside on the Kitchenuhmaykoosib Aaki Reserve, with the remaining 553 registered members residing elsewhere (ISC 2019). Kitchenuhmaykoosib Inninuwug First Nation has a Custom Electoral Governance System with one Chief, one Deputy Chief, and six Councillors elected every two years.
Long Lake #58 First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Long Lake #58 First Nation is a signatory to the Robinson-Superior Treaty 1850 and is affiliated with Matawa First Nations Management Inc., the Nishnawbe Aski Nation and the Union of Ontario Indians (UOI). The Long Lake #58 cultural affiliation is Ojibway. Long Lake #58 First Nation is comprised of a single reserve, Long Lake 58 (232.3 ha) located on the northern shore of Long Lake (ISC 2019), approximately 35 km northeast of Geraldton and approximately 207 km southwest of MFFN. As of July 2019, 528 registered members reside on Long Lake 58, with 1,115 registered members residing elsewhere (ISC 2019). Long Lake #58 First Nation uses the *Indian Act* Electoral Governance System with one Chief and 11 Councillors elected every two years.
Marten Falls First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	MFFN is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The MFFN cultural affiliation is Ojibway. MFFN is comprised of one reserve, Marten Falls Reserve 65 (7770.1 ha) on the Hudson Bay Lowlands in Northern Ontario (ISC 2020), at the intersection of the Ogoki and Albany rivers and approximately 400 km north of Thunder Bay. It is currently accessible by air, water and winter road only. The closest city with year-long road access is Nakina, which is located approximately 160 km to the south. As of April 2020, there are 352 registered members residing on the Marten Falls Reserve, with the remaining 462 registered members living elsewhere (ISC 2020). MFFN uses the *Indian Act* Electoral Governance System with one Chief and seven Councillors elected every two years. MFFN is actively working on a Draft CBLUP; the Terms of Reference for the plan was approved in 2013.

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Métis Nation of Ontario, Region 2	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. 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. The MNO has a provincial governing body that is elected every four 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).
Mishkeegogamang First Nation ***Tribal Council:*** *Independent First Nations* ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Mishkeegogamang First Nation is a signatory to Treaty 9 and affiliated with Nishnawbe Aski Nation. The Mishkeegogamang cultural affiliation is Ojibway. The Mishkeegogamang First Nation is comprised of two reserves: 63A (5,018.6 ha) and 63B (13,677.8 ha). As of April 2020, there are 1,111 registered members residing on Reserves 63A and 63B, with the remaining 866 registered members living elsewhere (ISC 2020). Mishkeegogamang First Nation uses the *Indian Act* Electoral System with one Chief and five Councillors elected every two years.
Neskantaga First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Neskantaga First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The Neskantaga cultural affiliation is Ojibway and Oji-Cree. Neskantaga First Nation is comprised of one reserve, Neskantaga Reserve (831.5 ha) located on Attawapiskat Lake (ISC 2019), approximately 200 km north of Nakina (Municipality of Greenstone) and 180 km northeast of Pickle Lake and 157 km northwest of MFFN. It is accessible by air, water and winter road only. As of July 2019, there are 355 registered members residing on the Neskantaga Reserve with the remaining 137 registered members living elsewhere (ISC 2019). Neskantaga First Nation has a Custom Electoral System with one Chief and four Councillors elected every two years.
Nibinamik First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Nibinamik First Nation, known as the Summer Beaver, is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The Nibinamik cultural affiliation is Ojibway. Nibinamik First Nation is comprised of the recently recognized reserve of the Summer Beaver Settlement, which is located on Nibinamik Lake (ISC 2019). The community is located approximately 480 km north of Greenstone and approximately 215 km northwest of MFFN. It is accessible by air, water and winter road only. According to Indigenous Services Canada (ISC 2019), 67 registered members live on 'own reserve' and the remaining 476 registered members live elsewhere. However, the Summer Beaver Settlement is not a reserve and has no statutory basis under the *Indian Act*. Nibinamik First Nation has a Custom Electoral Governance System with one Chief, one Head Councillor and three Councillors elected every two years.
Red Sky Métis Independent Nation	Red Sky Métis Independent Nation (RSMIN) is comprised of descendants of the 84 Métis 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 Red Sky Métis Independent Nation is located in Thunder Bay, approximately 435 km southwest of MFFN. There are approximately 8,000 members with an elected Chief (RSMIN 2019).

Table 7-2: Community Profiles of Neighbouring Indigenous Communities

Indigenous Community	Community Profile
Wapekeka First Nation ***Tribal Council:*** Shibogama First Nations Council ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Wapekeka First Nation is a signatory to Treaty 9 and is affiliated with the Shibogama First Nations Council and Nishnawbe Aski Nation. Wapekeka was formerly known as the Angling Lake First Nation. The Wapekeka cultural affiliation is Oji-Cree. Wapekeka First Nation is comprised of two reserves: Wapekeka Reserve 1 (3,605 ha) and Wapekeka Reserve 2 (2,026.5 ha) (ISC 2019). Wapekeka Reserve 2 serves as the residential community and is located on the shores of Otter Lake, approximately 440 km northeast of Sioux Lookout, which is the nearest service centre, and 350 km northwest of MFFN. Wapekeka Reserve 1 is located approximately 10 km south of the main community. The community is accessible by air through the off-reserve Angling Lake / Wapekeka Airport, as well as partially accessible by boat and a winter road. As of July 2019, 458 of the 498 registered members reside on Wapekeka reserve lands, with the remaining residing elsewhere (ISC 2019). Wapekeka First Nation has a Custom Electoral Governance System with one Chief, one Deputy Chief, and three Councillors elected every two years.
Wawakapewin First Nation ***Tribal Council:*** Shibogama First Nations Council ***Provincial Territorial Organization:*** Nishnawbe Aski 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. Wawakapewin First Nation is comprised of one reserve, the Wawakapewin Reserve (5,221 ha) (ISC 2019), which is located approximately 300 km northwest of MFFN. As of July 2019, approximately half of the 74 registered members reside on the Wawakapewin Reserve, with the remaining registered members residing elsewhere (ISC 2019). Wawakapewin First Nation has a Custom Electoral Governance System with one Chief and one Councillor elected every three years. Wawakapewin First Nation approved a Terms of Reference for a CBLUP in 2014, however, the community is not actively planning.
Webequie First Nation ***Tribal Council:*** Matawa First Nations Management Inc. ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Webequie First Nation is a signatory to Treaty 9 and is affiliated with Matawa First Nations Management Inc. and Nishnawbe Aski Nation. The Webequie cultural affiliation is Oji-Cree. Webequie First Nation is comprised of one reserve, Webequie Reserve (34,279 ha), located on the northern peninsula of Eastwood Island on Winisk Lake (ISC 2019), approximately 540 km north of the city of Thunder Bay and 178 km northwest of MFFN. The community is accessible by air via the off-reserve remote Webequie Airport, by water and winter road. As of July 2019, 331 of the registered members reside on the Webequie Reserve while the remaining 612 registered members live elsewhere (ISC 2019). Webequie First Nation has a Custom Electoral System with one Chief, one Head Councillor and five Councillors elected every two years. Webequie First Nation is actively working on a Draft CBLUP; the Terms of Reference for the plan was approved in 2014.
Weenusk First Nation ***Tribal Council:*** *Independent First Nations* ***Provincial Territorial Organization:*** Nishnawbe Aski Nation	Weenusk First Nation is a signatory to Treaty 9 and is affiliated with Nishnawbe Aski Nation. The Weenusk First Nation cultural affiliation is Cree in the n-dialect. Anishininiimowin and Ojibwemowin are also spoken. Weenusk people used to live in the community of Winisk near the mouth of the Winisk River until the community moved to Peawanuck due to flooding. Peawanuck is located near the confluence of the Winisk and Shamattawa Rivers, approximately 30 km up river from Winisk. Weenusk First Nation is comprised of one reserve, Winisk Reserve 90 (5,310 ha), and the Winisk Indian Settlement (ISC 2019), both of which are located approximately 45 km from Hudson Bay along the Winisk River and approximately 375 km north of MFFN. As of July 2019, 21 registered members live on Winisk Reserve 90 while the majority of the 600 registered members live elsewhere (ISC 2019). Weenusk First Nation has a Custom Electoral Governance System with one Chief and three Councillors elected every two years. Weenusk First Nation approved a Terms of Reference for a CBLUP in 2017, however, the community is not actively planning.
Wunnumin Lake First Nation ***Tribal Council:*** Shibogama First Nations Council ***Provincial Territorial Organization:*** Nishnawbe Aski 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. Wunnumin Lake First Nation is comprised of two reserves, Wunnumin 1 (5,855.1 ha) and Wunnumin 2 (3,794.4 ha) (ISC 2019). The reserves are located approximately 385 km northeast of Sioux Lookout, 177 km northeast of Pickle Lake, and 270 km northwest of MFFN. The community is accessible by air through the off-reserve remote Wunnumin Lake Airport, by water, and by winter road. As of July 2019, 574 of the 712 registered members reside on the Wunnumin reserves, with the remaining registered members living elsewhere (ISC 2019). Wunnumin Lake First Nation has a Custom Electoral System with one Chief, one Deputy Chief, one Head Councillor and three Councillors elected every two years.

Indigenous Use of Land and Resources for Traditional Purposes

The Project is located within the traditional territory of First Nations, including MFFN. "[MFFN's] traditional territory extends from Little 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 and the exercise of Aboriginal and Treaty Rights as protected under s. 35 of the *Constitution Act, 1982*. 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 areas, such as moose calving areas or fish spawning areas, are important to traditional land and resource use due to their role in producing the harvested resources. These harvested resources may also be 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.

MFFN will work with Indigenous communities to collect and incorporate information on Indigenous uses of lands and resources in relation to the area of the Project through the Indigenous Knowledge Program, including Project-specific Indigenous Knowledge and Land and Resource Use Studies (**Section 3.4.2.1**).

Indigenous Cultural Sites, Features and Practices

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.

Indigenous cultural 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).

Cultural activities and practices may occur at specific sites or may be 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.

Cultural practices also refers to cultural activities and events that may occur in a community during specific periods. Some of these cultural activities and events may be associated with specific sites. Within the MFFN community, a

community feast and a pow-wow are held annually (MFFN 2014). Information shared through the community based land use planning process indicates that a cultural week break is taken by school children and most community employees in April, and a youth retreat is held each July where traditional activities and way of life are practiced with young people. 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.

MFFN will work with Indigenous communities to collect and incorporate information on cultural sites, features and practices in relation to the area of the Project through the Indigenous Knowledge Program, including Project-specific Indigenous Knowledge and Indigenous Land and Resource Use Studies (**Section 3.4.2.1**).

7.1.4.2 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. Average monthly 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 2019).[12]

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);
- 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 provincially and federally 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.

Baseline GHG emissions within the area of the Project from existing activities, such as air travel, will be quantified. Desktop information regarding the extent that peatlands and other landcover types that are within the study area

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

act as carbon sinks will also be compiled. Existing air quality conditions will also integrate applicable information obtained through the Indigenous Knowledge Program, where possible.

7.1.4.3 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. The sources of vibration across the study area would be concentrated in populated areas and would be considered minor and infrequent. A majority of the lands are traditionally used for hunting, fishing, trapping and canoeing. Industrial and transportation noise and vibration 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 and vibration 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 and vibration 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). Baseline vibration levels will be determined based on available information. In addition, the existing conditions of the acoustic environment will integrate applicable information obtained through the Indigenous Knowledge Program, where possible.

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 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 Indigenous communities 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 one-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.

7.1.4.4 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 as 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 tonalite, 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 7-3 presents potential aggregate sources in the study area. The development of the identification and preliminary investigation of aggregate sources is currently being compiled. Once documented, this information to inform the quality, suitability, chemical composition, availability and quantity of aggregate required for the Project.

Marten Falls 65

Albany River

Buffaloskin River

Muswabik R

Wabimeig Lake

Gourlie Creek

ALBANY RIVER PROVINCIAL PARK

Dark River

Ruby Creek

Makokibatan Lake

Ogoki River

Dusey River

OGOKI RIVER PROVINCIAL PARK

Western Ogoki River Crossing Option

Ogoki Lake

Colpitts Creek

Little Current River

LITTLE CURRENT RIVER PROVINCIAL PARK

Rockett Creek

PAINTER LAKE RD

Papoose Creek

Ara Lake

Meta Lake

Abamasagi Lake

Aroland First Nation

OGOKI RD

O'Sullivan Lake

ANACONDA RD

Esnagami Lake

Michel Creek

Legarde River

Watistiguam River

Mundino River

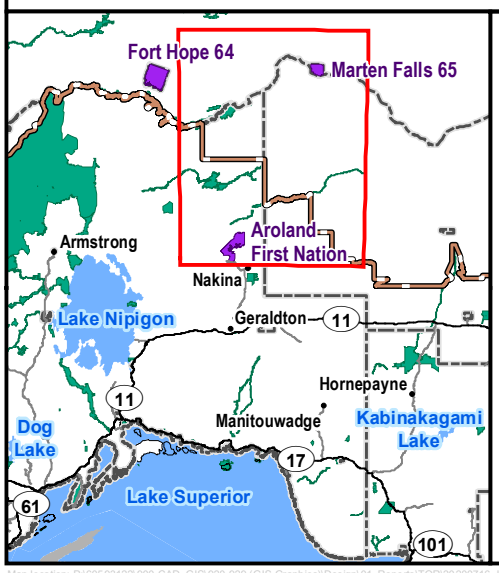
Drowning River

Singing River

Wigat Creek

Johnson Creek

643



Legend

Route Alternatives

- Alternative 1
- Alternative 4

General Features

- Highway
- Collector Road
- Residential Road
- Resource Road
- Railway
- Trail
- MFFN Existing Winter Access Road
- Watercourse
- First Nation Reserve
- Far North Boundary
- District Municipality
- Provincial Park
- Woodlands
- Waterbody
- 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.

Marten Falls First Nation
All Season Community Access Road

Potential Aggregate Sources

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

Aug, 2020	1:600,000 * when printed 11"x17"	**Data Sources:** Derived by KBM Resources Group n.d. MNRF, MMAH, NRCAN, MLAS, KGS
P#:60593122	Rev:00	

AECOM

Figure 7-3

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-10_Fig7-3_AggregateSources_R01_60593122.mxd
Date Saved: 8/25/2020 2:27:07 PM User Name: Stephanie.Clark

Geotechnical engineering field work will include selective hand augering and peat probes 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 to assess the suitability for quarry development.

The need for and scope of additional surveys will be determined in consultation with applicable agencies. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible.

7.1.4.5 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 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 7-3** 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 of the alternative routes. The location of crossings was identified through background review, helicopter reconnaissance and review of aerial imagery.

Table 7-3: 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[1]	46	47

Note: 1. The total number of watercourse crossing may change as design progresses and information becomes available to inform the number flow equalization culverts needed in wetlands and other low-lying areas.

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 (e.g., 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. The Ontario Wetland Evaluation System cannot be used to evaluate the extensive wetlands in the Lowlands portion within the area of the Project (MNR 2014). Wetlands in the area of

the Project will be described using other acceptable methods (e.g., Riley 2011 and Far North Science Advisory Panel 2010).

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. Surface water conditions will also integrate applicable information obtained through the Indigenous Knowledge Program, where possible.

The ground-based field survey 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 alternatives.

Surface water field surveys will be completed along an approximate 200 m section of the selected water body (centred 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 7.1.4.9**).

During the geotechnical field program, the depth of peat will be investigated since a significant portion of the Project traverses organic terrain and will have a surficial layer of peat moss. During the vegetation field survey, discussed in **Section 7.1.4.7**, 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 7.1.4.4**.

The need for and scope of additional surveys will be determined in consultation with applicable agencies. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible.

7.1.4.6 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 7.1.4.5**). The need for and scope of additional surveys will be determined in consultation with applicable agencies. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible. Additionally, groundwater elevation will be recorded during the geotechnical drilling program (**Section 7.1.4.4**).

7.1.4.7 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 EA will include a description of vegetation at the EcoDistrict scale, as well as a map identifying the Project in relation to the Ecozone and Ecoregions it traverses.

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 (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 Balsam Poplar (*Populus balsamifera*) 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 Ontario. 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), including applicable information obtained through the Indigenous

Knowledge Program where possible, will be used to describe and map the range of vegetation communities present in the study area. During the vegetation field survey, peatlands will be also examined, descriptions of plant species, relative abundance of plant species, degree of surface or groundwater flow for distinction of fens and bogs and presence of invasive and SAR will be recorded. Peatland studies are multidisciplinary and will primarily be discussed in **Section 7.1.4.5** (Surface Water) for simplicity.

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 bryophytes, where observed) will be provided. SAR will be identified and suitable habitat for these species will be extrapolated to include the entire study area.

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*), as occurring within the study area. No other terrestrial vegetation SAR have been identified for the Project.

A description of soil, plant species, relative abundance of plant species, and presence of invasive and SAR will be recorded during field investigations within each vegetation survey plot; no specific field program targeting at-risk vegetation species is planned. The need for and scope of additional surveys will be determined in consultation with MECP and MNRF. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible.

Species of Importance to Indigenous Communities: Vegetation

A preliminary list of plant species of importance for dietary needs, medicinal needs and / or cultural and spiritual needs has been identified based on available Indigenous Knowledge. Tree species of importance include Black Spruce, White spruce (*Picea glauca*), Balsam Fir, Tamarack (*Larix laricina*), Balsam Poplar, Jack Pine, Trembling Aspen (*Populus tremuloides*) and White (dwarf) Birch (*Betula papyrifera*) were all listed as important species to the communities. The species of herbaceous plants of importance include Cottongrass, *(Eriophorum angustifolium),* Black Crowberry *(Empetrum nigrum),* blueberries *(Vaccinium spp.),* raspberries *(Rubus spp.),* Northern Labrador Tea *(Ledum palustre),* bearberry *(Arctostaphylos spp.),* gooseberry *(Ribes spp.),* dogwoods *(Cornus spp.),* small cranberry *(Vaccinium oxycoccos),* Sweetgrass *(Anthoxanthum nitens),* waterlilies *(Nymphaea sp.),* mosses *(Bryophyta),* sphagnum moss *(Sphagnum spp.)* and Caribou Lichen *(Cladonia rangiferina),* and Wild Rice (*Zizania Palustris*).

7.1.4.8 Wildlife

The general area of the Project provides suitable habitat for a variety of small and large mammals, as well as various birds, amphibians, reptiles and insects that are found in the boreal forest. As described in **Section 7.1.4.7**, 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 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 (*Ursus americanus*), ungulates including Moose (*Alces alces*) and Caribou (Boreal population), Gray Wolf (*Canis lupus*), Wolverine (*Gulo gulo*), lynx, American Marten (*Martes americana*), Fisher (*Martes pennanti*), Muskrat (*Ondatra zibethicus*), Striped Skunk (*Mephitis mephitis*), groundhog, Snowshoe Hare (*Lepus americanus*), River Otter (*Lontra canadensis)* and fox. It is understood through MFFN's community-based land use planning underway that Polar Bear (*Ursus maritimus*) and seals are not found in the area of the Project but are found to the east near the James Bay coast. In addition, hundreds of migratory birds inhabit the Far North region. Herptile species known to occur in the area include American Toad (*Anaxyrus americanus*), Eastern Garter Snake (*Thamnophis sirtalis sirtalis*), Wood

Frog (*Lithobates sylvaticus*), Red-sided Garter Snake (*Thamnophis sirtalis*) and Northern Leopard Frog (*Lithobates pipiens*). The latter two species are considered regionally significant (MFFN 2017). There is a strong seasonal presence of insects in the area of the Project, with mosquitos and black flies very prevalent during the spring and summer months. Dragonflies, butterflies, bumble bees, and deer and horse flies are also very common.

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). 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.

The need for and scope of additional surveys will be determined in consultation with MECP and MNRF. Information on wildlife and wildlife habitat within the study area will integrate applicable information obtained through the Indigenous Knowledge Program, where possible.

Species at Risk: Wildlife

A preliminary review of background resources was completed to obtain information on species listed as threatened, endangered or special concern (SAR) under the provincial *Endangered Species Act, 2007* or the federal *Species at Risk Act, 2002.* A comprehensive list of SAR that could potentially occur within the study area was developed and includes a total of 20 SAR with records or geographic distributions that overlap. An assessment was also completed to determine if suitable habitat for these 20 species is likely to be present within the study area. This assessment was based on a review of aerial photography and local knowledge of the area. **Table 7-4** summarizes potential wildlife SAR within the study area based on the presence of suitable habitat.

Caribou (Boreal population: *Rangifer tarandus*) 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) Caribou (Boreal population) were found to occur most frequently in peatlands, followed by coniferous forest, and they avoided deciduous forest (Ferguson and Elkie 2004). Habitat of the Nipigon range also falls within the study area. 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 Caribou (Boreal population) is often challenging and likely to be inaccurate. Since 2009, several research studies led by independent contractors and the MNRF have investigated Caribou (Boreal population) and their habitat in areas crossed by the Project. The MNRF attached radio collars to a large number of Caribou (Boreal population) across northern Ontario. Satellite tracking between 2009 and 2014 identified that some of these collared 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.

Table 7-4: Potential Wildlife Species At Risk and Species At Risk Habitat

Taxa	Common Name	Scientific Name	Conservation Ranking	ESA Status	SARA Status	Source Used to Identify Occurrence in Project Area	Habitat Requirements [1,2,3]	Habitat Exists within Study Area
Bird	Bald Eagle	*Haliaeetus leucocephalus*	S2N,S4B	*SC*	-	MECP 2019, OBBA, eBird	Bald Eagles nest in a variety of habitats and forest types, almost always near a major lake or river where they do most of their hunting. While fish are their main source of food, Bald Eagles can easily catch prey up to the size of ducks, and frequently feed on dead animals, including White-tailed Deer. They usually nest in large trees such as pine and poplar. During the winter, Bald Eagles sometimes congregate near open water such as the St. Lawrence River, or in places with a high deer population where carcasses might be found.	Candidate habitat present
Bird	Bank Swallow	*Riparia riparia*	S4B	*THR*	THR	MECP 2019	Bank Swallows nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. Many nests are on banks of rivers and lakes, but they are also found in active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs. The Bank Swallow breeds in a wide variety of natural and artificial sites with vertical banks, including riverbanks, lake and ocean bluffs, aggregate pits, road cuts, and stockpiles of soil. Sand-silt substrates are preferred for excavating nest burrows. Breeding sites tend to be somewhat ephemeral due to the dynamic nature of bank erosion. Breeding sites are often situated near open terrestrial habitat used for aerial foraging (e.g., grasslands, meadows, pastures, and agricultural cropland). Large wetlands are used as communal nocturnal roost sites during post-breeding, migration, and wintering periods.	Candidate habitat present
Bird	Barn Swallow	*Hirundo rustica*	S4B	*THR*	THR	MECP 2019	Barn Swallows often live in close association with humans, building their cup-shaped mud nests almost exclusively on human-made structures such as open barns, under bridges and in culverts. The species is attracted to open structures that include ledges where they can build their nests, which are often re-used from year to year. They prefer unpainted, rough-cut wood, since the mud does not adhere as well to smooth surfaces. Before European colonization, Barn Swallows nested mostly in caves, holes, crevices and ledges in cliff faces. Following European settlement, they shifted largely to nesting in and on artificial structures, including barns and other outbuildings, garages, houses, bridges and road culverts. Barn Swallows prefer various types of open habitats for foraging, including grassy fields, pastures, various kinds of agricultural crops, lake and river shorelines, cleared rights-of-way, cottage areas and farmyards, islands, wetlands and subarctic tundra.	Candidate habitat present
Bird	Black Tern	*Chlidonias niger*	S3B	*SC*	-	MECP 2019, OBBA, eBird	Black Terns build floating nests in loose colonies in shallow marshes, especially in cattails. Vegetated marshes must be located immediately adjacent to enough open water to provide suitable nesting habitat.	Candidate habitat present
Bird	Canada Warbler	*Cardellina canadensis*	S4B	*SC*	THR	MECP 2019, eBird	The Canada Warbler breeds in a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer. Dense shrub and understory vegetation help conceal Canada Warbler nests that are usually located on or near the ground on mossy logs or roots, along stream banks or on hummocks. It is also found in riparian shrub forests on slopes and in ravines and in old-growth forests with canopy openings and a high density of shrubs, as well as in stands regenerating after natural disturbances, such as forest fires, or anthropogenic disturbances, such as logging. Canada Warbler habitat is believed to be in decline, especially in South America, where the Canada Warbler overwinters. Habitat loss has also been observed in the eastern part of its breeding range, where wet forests have been drained for urban development or farming.	Candidate habitat present
Bird	Chimney Swift	*Chaetura pelagica*	S4B,S4N	*THR*	THR	MECP 2019	Before European settlement, Chimney Swifts mainly nested on cave walls and in hollow trees or tree cavities in old growth forests. However, due to the land clearing associated with colonization, hollow trees became increasingly rare, which led Chimney Swifts to move into house chimneys. Today, they are more likely to be found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. It is likely that a small portion of the population continues to use hollow trees. They also tend to stay close to water as this is where the flying insects, they eat congregate. The Chimney Swift spends the major part of the day in flight feeding on insects. In the northern part of the breeding range, the Chimney Swift favours sites where the ambient temperature is relatively stable.	Candidate habitat present
Bird	Common Nighthawk	*Chordeiles minor*	S4B	*SC*	THR	MECP 2019, OBBA, eBird	Traditional Common Nighthawk habitat consists of open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores and mine tailings. Although the species also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways, they tend to occupy natural sites. The Common Nighthawk nests in a wide range of open, vegetation-free habitats, including dunes, beaches, recently harvested forests, rocky outcrops, grasslands, pastures, marshes and river banks. This species also inhabits mixed and coniferous forests. The Common Nighthawk probably benefited from the newly-opened habitats created by the massive deforestation associated with the arrival of European settlers in eastern Canada and United States. The appearance of gravel roofs contributed to the expansion of the Common Nighthawk's habitat in North America.	Candidate habitat present
Bird	Eastern Whip-poor-will	*Antrostomus vociferous*	S4B	*THR*	THR	MECP 2019	The Eastern Whip-poor-will is usually found in areas with a mix of open and forested areas, such as savannahs, open woodlands, or openings in more mature deciduous, coniferous and mixed forests. It forages in these open areas and uses forested areas for roosting (resting and sleeping) and nesting. It lays its eggs directly on the forest floor, where its colouring means it will easily remain undetected by visual predators. Whip-poor-will breeding habitat is not dependent upon species composition, but rather on forest structure, although common tree associations in both summer and winter are pine and oak. The species shuns both wide-open spaces and dense forest. It prefers to nest in semi-open forests or patchy forests with clearings, such as barrens or forests that are regenerating following major disturbances. Other necessary breeding habitat elements are thought to involve ground-level vegetation and woodland size. Individuals will often feed in nearby shrubby pastures or wetlands with perches. Areas with decreased light levels where forest canopies are closed are generally not occupied, perhaps because of reduced forage success for this aerial-feeding insectivore.	Candidate habitat present

Table 7-4: Potential Wildlife Species At Risk and Species At Risk Habitat

Taxa	Common Name	Scientific Name	Conservation Ranking	ESA Status	SARA Status	Source Used to Identify Occurrence in Project Area	Habitat Requirements [1,2,3]	Habitat Exists within Study Area
Bird	Eastern Wood Pe-wee	*Contopus virens*	S4B	*SC*	SC	eBird	The Eastern Wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation. During migration, a variety of habitats are used, including forest edges and early successional clearings.	Candidate habitat present
Bird	Evening Grosbeak	*Coccothraustes vespertinus*	S4B	*SC*	SC	eBird	During the breeding season, the Evening Grosbeak is generally found in open, mature mixed-wood forests dominated by fir species, White Spruce and / or Trembling Aspen. Its abundance is strongly linked to the cycle of its primary prey, the Spruce Budworm. Outside the breeding season, the species depends mostly on seed crops from tree species in the boreal forest, such as firs and spruces. It is also attracted to ornamental trees that have seeds or fruit, and may visit bird feeders.	Candidate habitat present
Bird	Olive-sided Flycatcher	*Contopus cooperi*	S4B	*SC*	THR	MECP 2019, OBBA, eBird	The Olive-sided Flycatcher is most often found along natural forest edges and openings. It will use forests that have been logged or burned if there are ample tall snags and trees to use for foraging perches. Olive-sided Flycatchers' breeding habitat usually consists of coniferous or mixed forest adjacent to rivers or wetlands. In Ontario, Olive-sided Flycatchers commonly nest in conifers such as White and Black Spruce, Jack Pine and Balsam Fir. The Olive-sided Flycatcher is most often associated with open areas containing tall live trees or snags for perching. These vantage points are required for foraging. This species generally forages from a high, prominent perch from which it sallies forth to intercept flying insects and then returns to the same perch. Open areas may be forest clearings, forest edges located near natural openings (such as rivers or swamps) or human-made openings (such as logged areas), burned forest, or openings within old-growth forest stands; these forests are characterized by mature trees and large numbers of dead trees. There is evidence that the breeding success of birds nesting in harvested habitats is lower than the breeding success of birds nesting in natural openings. In the boreal forest, suitable habitat is more likely to be in or near wetland areas. Although the amount of old-growth forest obviously decreased during the 20th century, the amount of habitat attractive to Olive-sided Flycatchers may have remained more or less constant, since logging operations continue to create openings favoured by these birds. However, recent studies indicate that these sites are less suitable for breeding.	Candidate habitat present
Bird	Peregrine Falcon	*Falco peregrinus*	S3B	*SC*	SC	MECP 2019	Peregrine Falcons usually nest on tall, steep cliff ledges close to large bodies of water. Although most people associate Peregrine Falcons with rugged wilderness, some of these birds have adapted well to city life. Urban peregrines raise their young on ledges of tall buildings, even in busy downtown areas. Cities offer peregrines a good year-round supply of pigeons and starlings to feed on. The Peregrine Falcon is found in various types of habitats, from Arctic tundra to coastal areas and from prairies to urban centres. It usually nests alone on cliff ledges or crevices, preferably 50 m to 200 m in height, but sometimes on the ledges of tall buildings or bridges, always near good foraging areas. Suitable nesting sites are usually dispersed, but can be common locally in some areas. The natural nesting habitat has not changed significantly since the population crash and is still largely available. In addition, structures built by humans in both rural and urban areas provide the Peregrine Falcon with other potential nesting sites. And though urbanization and other land uses have had a significant effect on some areas where they feed, Peregrine Falcons can usually modify their diet based on the prey species present in a given area.	Candidate habitat present
Bird	Rusty Blackbird	*Euphagus carolinus*	S4B	*NAR*	SC	OBBA, eBird	During the winter, it is found in wet woodlands, swamps and pond edges, and often forages in agricultural lands. The breeding range of the Rusty Blackbird in Canada is almost entirely within the boreal forest. Breeding habitat there is characterized by coniferous-dominated forests adjacent to wetlands, such as slow-moving streams, peat bogs, sedge meadows, marshes, swamps and beaver ponds. On migration, the Rusty Blackbird is primarily associated with wooded wetlands. In winter, it occurs primarily in lowland forested wetlands, cultivated fields and pecan groves. Suitable habitat for the species appears to be decreasing on its breeding range and wintering grounds, due mainly to the loss and degradation of wetlands by human activities.	Candidate habitat present
Bird	Short-eared Owl	*Asio flammeus*	S2N,S4B	*SC*	SC	MECP 2019, eBird	The Short-eared Owl makes use of a wide variety of open habitats, including arctic tundra, grasslands, peat bogs, marshes, sand-sage concentrations and old pastures. It also occasionally breeds in agricultural fields. Preferred nesting sites are dense grasslands, as well as tundra with areas of small willows. While the Short-eared Owl has a marked preference for open spaces, the main factor influencing the choice of its local habitat is believed to be the abundance of food, in both summer and winter. It nests on the ground and hunts for small mammals, especially voles. Suitable breeding, migration and wintering habitat has declined significantly throughout the 20th century, resulting in a reduction in the number of owls. In North America, it breeds sporadically in arctic areas, coastal marshes and interior grasslands, where voles and other small rodents proliferate.	Candidate habitat present
Bird	Yellow Rail	*Coturnicops noveboracensis*	S4B	*SC*	SC	MECP 2019, eBird	Yellow Rails are secretive birds and live deep in the reeds, sedges and marshes of shallow wetlands, where they nest on the ground. The marshy areas used by Yellow Rails have an overlying dry mat of dead vegetation that is used to make roofs for nests. Nesting Yellow Rails are typically found in marshes dominated by sedges, true grasses, and rushes, where there is little or no standing water (generally 0 cm to 12 cm water depth), and where the substrate remains saturated throughout the summer. They can be found in damp fields and meadows, on the floodplains of rivers and streams, in the herbaceous vegetation of bogs, and at the upper levels (drier margins) of estuarine and salt marshes. A greater diversity of habitat types is used during migration and winter than during the breeding season.	Candidate habitat present

Table 7-4: Potential Wildlife Species At Risk and Species At Risk Habitat

Taxa	Common Name	Scientific Name	Conservation Ranking	ESA Status	SARA Status	Source Used to Identify Occurrence in Project Area	Habitat Requirements [1,2,3]	Habitat Exists within Study Area
Mammal	Caribou (Boreal population)	*Rangifer tarandus caribou*	S4	*THR*	THR	MECP 2019, NHIC	Caribou habitat in the boreal forest is constantly changing. Much of the forest is naturally in an unsuitable condition for Caribou at any one time, but Caribou need and use the entire landscape over time as habitat changes. Disturbances from fires, blowdown and insects can quickly change the amount and distribution of habitat. There is also great ecological variation in Caribou habitat across the province ranging from upland fire-dependent forests in the northwest, to extensive lowland forests in the northeast where fire is much less frequent. At the broad landscape scale, Caribou require large, undisturbed areas of old or mature conifer upland forest and lowlands dominated by Jack Pine and / or Black Spruce. These areas allow Caribou to effectively separate themselves from higher densities of Moose, White-tailed Deer, Grey Wolves and Black Bears which tend to be associated with younger mixed or deciduous forest. At smaller scales, Caribou seasonally select specific habitat features and areas that support successful reproduction and calf rearing, provide summer and / or winter forage, and / or facilitate movement between discrete areas of use. In winter, Woodland Caribou use mature and old-growth coniferous forests that contain large quantities of terrestrial and arboreal (tree-inhabiting) lichens. These forests are generally associated with marshes, bogs, lakes and rivers. In summer, the caribou occasionally feed in young stands, after fire or logging. Many subpopulations of the Woodland Caribou Boreal population show a preference for peatlands; they generally avoid clear cuts, shrub-rich habitat and aspen-poplar dominated sites. The most common tree species in preferred habitats are Black Spruce, White Spruce and Tamarack.	Candidate habitat present
Mammal	Little Brown Myotis	*Myotis lucifugus*	S4	*END*	END	MECP 2019, BCI Range Mapping	Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings, and barns for summer colonies where they can raise their young. Bats can squeeze through very tiny spaces (as small as 6 mm across) and this is how they access many roosting areas. Little Brown Bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing. Their specific physiological requirements limit the number of suitable sites for overwintering. In the east, large numbers (i.e., >3000 bats) of several species typically overwinter in relatively few hibernacula. In the west, there are fewer known hibernacula, and numbers appear lower per site. Females establish summer maternity colonies, often in buildings or large-diameter trees. Foraging occurs over water, along waterways and forest edges. Large open fields or clear-cuts generally are avoided. In autumn, bats return to hibernacula, which may be hundreds of kilometres from their summering areas, swarm near the entrance, mate, and then enter that hibernaculum, or travel to different hibernacula to overwinter. Associated Ecological Land Classification communities include : Coniferous Forest, Mixed Forest, Deciduous Forest, Coniferous Swamp, Mixed Swamp and Deciduous Swamp where suitable roosting (e.g., cavity trees and trees with loose bark) habitat is available.	Candidate habitat present
Mammal	Northern Myotis	*Myotis septentrionalis*	S3	*END*	END	MECP 2019, BCI Range Mapping	Northern Long-eared Bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April. The Northern Long-eared Bat overwinters in cold and humid hibernacula (caves / mines). Their specific physiological requirements limit the number of suitable sites for overwintering. In the east, large numbers (i.e., >3000 bats) of several species typically overwinter in relatively few hibernacula. In the west, there are fewer known hibernacula, and numbers appear lower per site. Females establish summer maternity colonies in buildings or large-diameter trees. Foraging occurs along waterways, forest edges and in gaps in the forest. Large open fields or clear-cuts generally are avoided. In autumn, bats return to hibernacula, which may be hundreds of kilometres from their summering areas, swarm near the entrance, mate, and then enter that hibernaculum, or travel to different hibernacula to overwinter. Associated Ecological Land Classification communities include : Coniferous Forest, Mixed Forest, Deciduous Forest, Coniferous Swamp, Mixed Swamp and Deciduous Swamp where suitable roosting (e.g., cavity trees and trees with loose bark) habitat is available.	Candidate habitat present
Mammal	Wolverine	*Gulo gulo*	S2S3	*THR*	SC	Local Knowledge	Wolverines usually live alone and roam across large territories that vary from 500 km^2 to 1,500 km^2 or more. Females build dens under snow-covered boulders, fallen logs, and occasionally in snow drifts. Researchers are still learning about the ecology and habitat needs of the Wolverine in Ontario. A wide variety of forested and tundra habitats is used by wolverines in wilderness areas. Habitats must have an adequate year-round supply of food that consists of smaller prey species, such as rodents and Snowshoe Hares, used more in summer, and the carcasses of larger animals, like Moose and Caribou, which are an important part of the winter diet. Females den at higher elevations under rocks, logs or snow. The snow cover must persist late into the spring to insulate the den and food must be close at hand. Forestry, hydroelectric developments, oil and gas and mineral exploration and development, and transportation corridors continue to alter, remove or fragment habitats. About 6% of all current Wolverine range is within parks and protected areas.	Candidate habitat present

Glossary

END ESA - Endangered: a species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's *Endangered Species Act*.
SARA - Endangered: a wildlife species that is facing imminent extirpation or extinction.
THR ESA – Threatened: a species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SARA – Threatened: a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC ESA - Special Concern (formerly Vulnerable): a species with characteristics that make it sensitive to human activities or natural events.
SARA - Special Concern: a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

References:

1. MECP 2019
2. COSEWIC 2020.
3. McCarty 1996.

Field surveys for at-risk wildlife species will focus on:

- **Bat Maternity Roost Monitoring**:
  A review of aerial imagery and PLC2000 landcover types conducted to identify potentially 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 (*Riparia riparia*), Barn Swallow (*Hirundo rustica*) and Eastern Whip-poor-will (*Antrostomus vociferus*) 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.
- **Remote Camera Surveys:**
  Remote cameras deployed in a variety of habitat types where wildlife concentration may occur (e.g., wildlife trails, roads, cut lines, river banks, and other linear features). Camera data analyzed to determine number of individuals of each species at certain locations within the study area.

The need for and scope of additional SAR wildlife surveys[13], including Caribou (Boreal population), is being determined in consultation with MECP and MNRF. The results of field investigations for this Project will be documented in the EA. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible.

Species of Importance to Indigenous Communities: Wildlife

A preliminary list of wildlife species of importance for dietary needs, and / or cultural and spiritual needs has been identified based on available Indigenous Knowledge. Wildlife species on this preliminary list includes Gray Wolf, American Marten, American Mink (*Neovison vison*), Moose, Black Bear, Beaver (*Castor canadensis*), Muskrat, River Otter, Boreal Woodland Caribou (*Rangifer tarandus caribou)*, White-tailed Deer (*Odocoileus virginianus***)**, Arctic Fox (*Vulpes lagopus*), Fisher and Wolverine, and Bald Eagle (*Haliaeetus leucocephalus*).

7.1.4.9 Fish and Fish Habitat

The general area of the Project includes a multitude of aquatic features throughout the landscape dominated by wetlands (e.g., 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 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. Lake Sturgeon (*Acipenser fulvescens*), also important for Indigenous communities throughout the area, are present in the area of the Project. In addition to the species listed

13. Initial surveys for SAR were completed in 2018.

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*); and
- Logperch (*Percina caprodes*).

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 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 7.1.4.5**). Indigenous Knowledge related to fish and fish habitat collected through the Indigenous Knowledge Program will also be integrated, where possible.

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 backpack electrofisher and / or baited minnow traps sampling methods.

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 alternatives.

Species at Risk: 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, as well as Ogoki River Provincial Park waterways (COSEWIC 2017). The Southern Hudson Bay-James Bay populations are designated as Special Concern under the provincial *Endangered Species Act* and hold 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.

Table 7-5 includes information on the distribution of at-risk fish species and their habitats based on readily available information; no field surveys are planned to target at-risk fish species. The need for and scope of additional surveys will be determined in consultation with MECP and MNRF. Applicable information obtained through the Indigenous Knowledge Program will also be integrated, where possible.

Table 7-5: Potential Fish Species At Risk and Species At Risk Habitat

Taxa	Common Name	Scientific Name	Conservation Ranking	ESA Status	SARA Status	Source Used to Identify Occurrence in Project Area	Habitat Requirements [1,2,3]	Habitat Exists within Study Area
Fish	Lake Sturgeon	*Acipenser fulvescens*	S3?	*SC*	SC	Committee on the Status of Endangered Wildlife in Canada 2017, DFO Aquatic Species at Risk Maps	The Lake Sturgeon lives almost exclusively in freshwater lakes and rivers with soft bottoms of mud, sand or gravel. They are usually found at depths of 5 m to 20 m. They spawn in relatively shallow, fast-flowing water (usually below waterfalls, rapids, or dams) with gravel and boulders at the bottom. However, they will spawn in deeper water where habitat is available. They also are known to spawn on open shoals in large rivers with strong currents. The species occupies a wide variety of aquatic ecosystem types (e.g., stepped-gradient Boreal Shield rivers, low-gradient meandering Prairie rivers, low gradient Hudson lowland rivers, Great Lakes and associated tributaries). Lake Sturgeon requires a variety of habitats to complete its lifecycle, and the species has evolved to exploit typical upstream to downstream hydraulic and substrate gradients. Hatch is contingent on aeration by flowing water, after which larvae apparently require gravel substrate in which to bury and remain while development continues. Once the yolk sac is absorbed, larvae drift downstream via water currents. Habitat requirements at the age-0 stage are not well understood, but may not be as strict as previously assumed. Aside from the requirement of adequate benthic prey items, the habitat requirements for middle to later life stages (juveniles and adults) are not particularly narrow. Habitat trends vary across the species' range. In some areas, the construction of dams has ceased but, in other areas, it is expected to continue into the foreseeable future. Sediment and water quality has improved in many areas formerly affected by pollution from the pulp-and-paper industry. Large lakes / rivers > 20 m deep with soft mud, sand or gravel bottoms required.	Candidate habitat present

Glossary

SC ESA - Special Concern (formerly Vulnerable): a species with characteristics that make it sensitive to human activities or natural events.
SARA - Special Concern: a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

References:
1. MECP 2019\
2. COSEWIC 2020.
3. McCarty 1996.

Species of Importance to Indigenous Communities: Fish

A preliminary list of fish species of importance for dietary needs, and / or cultural and spiritual needs has been identified based on available Indigenous Knowledge. Fish species include Walleye, Northern Pike, Lake Whitefish, Brook Trout, Chain Pickerel (*Esox niger*), Yellow Perch, Cisco, Burbot, Longnose Sucker, White Sucker, Lake Sturgeon and Lake Chub.

7.1.4.10 Social, Economic and Built Environment

The social, economic and built environment assessment will consider five subcomponents including socio-community (social), economy, land and resource use, human health and community safety, and visual aesthetics. Primary data collection programs will support all components of the social, economic and built environment 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 814 registered members with approximately 352 of registered members residing on the Marten Fall Reserve. The remaining 462 registered members live elsewhere in municipalities such as Thunder Bay and urban centres in Greenstone (e.g., Geraldton or Nakina, located approximately 230 km and 160 km, respectively, south-southwest of the Marten Falls Ogoki Post settlement). The population is steadily increasing, which is anticipated to continue in the future (MFFN 2014). Languages within the MFFN community include English and dialects of Ojibwe and Oji-Cree (also known as Severn Ojibwe). The designated service centre for the MFFN 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 2014).

Matawa First Nations Management Inc., 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). Aboriginal Affairs and Northern Development Canada funds programs and services administered by MFFN.

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 MFFN 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 MFFN 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. Administration offices are computerized with internet, fax and telephone access, according to the CBLUP team. Television is available through satellite. News to the MFFN community is provided by Wawatay bi-weekly and the Chronicle Journal daily (MFFN 2014). In October 2019 the Province of Ontario announced funding towards the Matawa broadband project in which five Matawa communities, including the community of MFFN will have access to high-speed fibre-optic internet, no announcements on project timelines have been made (Government of Ontario 2019e).

To the south of the Project is Aroland First Nation. The Indigenous 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 Inc., 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 Inc. 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 First Nation and Aroland First Nation, and was formed to manage the Ogoki 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 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. Information obtained through the community based land use planning process indicates that, depending on fur markets, trapping can provide economic opportunity and contribute to the sale of crafts, such as hats, moccasins and snowshoes. Some MFFN community members also engage in the tradition of tanning hide and the sale of paintings, carvings, beading and baskets. 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 First Nation including a gas bar, convenience store, taxi company and tourist outfitters (Matawa First Nations Management Inc. 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 First Nation. However, Aroland First Nation is currently connected to the provincial highway network, which could provide economic opportunity to the community. The median income of $13,920 is low relative to the provincial average (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 average 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. Existing land use may include those designated by Indigenous community, and municipal, provincial and federal government.

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, which is under development but 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 (MNR 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 (MNR 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 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 mineral claims. Both alternatives overlap a high number of mineral claims belonging to multiple mining companies. Currently, no all-season ground access exists to these claims or claims of interest north of the MFFN 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 MFFN community and to bring in goods such as heavy equipment, supplies and construction materials. The road is typically operational about six to eight weeks annually between the months of February to March if conditions are favourable.

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 and trout (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 the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) Tourism Region 13C where $109 million was spent by tourists from Ontario, other places in Canada, and overseas in 2016 on pleasure tourism. Tourism in the region is generally resource-based, with outfitting as a key tourism activity, with 841,000 visits including participation in an outdoor / sports activity (e.g., 368,600 visits included fishing, 343,600 visits included boating) as the main purpose of their trip. Most of these tourists come from 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 10 tourism operators have been identified as potentially having overlapping operating areas within the study area. Mapping identifying the location of tourism operators, and recreation and commercial activities will be included in the EA where practicable.

Human Health and Community Safety

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 MFFN 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 five days per week. Health staff provide nursing services, health promotion and community health programs. Emergency medical services are

provided in Greenstone with medivac aircraft used 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 Inc., Nishnawbe-Aski Nation and the Ontario government provide family support, prevention and intervention programs within the MFFN 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 First Nation, 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 Coordinator 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 aesthetic is an important component 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.

Data Collection Methods

The following describes data collection activities. 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;
- Federal reports and plans;
- Non-Governmental Organization and academic reports;
- Community based land use planning; and
- Regional industry sector reports.

A 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 Indigenous 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. 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. Interviews will be guided by a survey instrument (e.g., interview guide, survey, questionnaire) to increase

consistency with the input that is requested. Within Indigenous communities, the MFFN will attempt to interview members of Chief and Council, women, 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 interested persons 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.

Information from the Indigenous Knowledge Program will be integrated to inform components of the social, economic and built environment whenever relevant. The characterization of the social environment will not reference sensitive material, which is not fitting for the public forum, such as the location of important cultural sites.

7.1.4.11 Archaeology and Cultural Heritage

Cultural heritage resources include archaeological resources, built heritage resources and cultural heritage landscapes. Known (previously recognized) and potential cultural heritage resources will be identified and described within the EA.

Archaeological Sites and Resources

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 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 the 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, including the Marten (Martin) Falls House (EjIp-1), which is found on the southern bank of the Albany River, approximately 12 km 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. At present, these fur trade posts are considered archaeological sites with minimal, if any, above ground heritage considerations.

A Stage 1 archaeological assessment to identify areas of archaeological potential within the study area will be undertaken by a licensed archaeologist. The Stage 1 archaeological assessment will be submitted for the MHSTCI review during the EA. 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 inform the need for any additional studies.

Should results of the Stage 1 archaeological assessment confirm archaeological potential within the directly affected area of the preferred alternative, further stages of archaeological assessment will be completed as early as possible prior to the completion of detailed design. 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 (e.g., 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.

Archaeological assessment(s) will be conducted by a licensed archaeologist and will meet the requirements of the *Ontario Heritage Act* and 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.

Built Heritage Resources and Cultural Heritage Landscapes

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.

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 7-6**. As part of the EA, the potential positive and negative, direct and indirect 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, informed by consultation with Indigenous communities, government agencies and interested persons, as well as information obtained through the Indigenous Knowledge Program (**Section 3.4.2.1**). A direct effect occurs when there is a change due to a project activity, whereas an indirect effect occurs when a change to a criterion resulting from a project activity causes a change to another criterion (e.g., changes in noise levels could affect wildlife).

Table 7-6: Preliminary Identification of Potential Environmental Effects

Environmental Component	Discipline	Potential Effect
Indigenous Peoples' Rights and Interests	*Aboriginal and Treaty Rights and Interests*	▪ Changes in or loss of sites and areas used for traditional activities (hunting, trapping, fishing, gathering) ▪ Changes in the availability and quality of lands and resources used for traditional activities ▪ Changes in access to lands and resources used for traditional activities ▪ Changes in or loss of culturally important sites and areas (e.g., ceremonial sites, sacred areas, Place Names, oral history sites, teaching sites) ▪ Changes in the sufficiency of lands and resources for cultural traditions ▪ Changes in the experience of being on the land ▪ Changes to cultural traditions
Natural (Physical and Biophysical)	*Atmospheric Environment*	▪ Changes to air quality ▪ Change in GHGs
	Acoustic Environment	▪ Changes in noise levels ▪ Changes to vibration
	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 ▪ 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)
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
	Economy	▪ Change in employment and income ▪ Change to the regional economy ▪ Change to government finances ▪ Change to industrial opportunities
	Land and Resource Use	▪ Changes to provincial parks and protected area lands ▪ Changes to existing industrial uses ▪ Changes to recreational and commercial lands used for trapping, hunting, fishing and other activities
	Human Health and Community Safety	▪ Changes in air quality, noise levels and water quality ▪ Changes to public health and community 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 (e.g., scenic values and viewpoints)
Archaeology and Cultural Heritage	*Archaeological Resources*	▪ Damage to, or the loss of, archaeological sites and / or resources ▪ Disturbance or destruction of archaeological resources
	Built Heritage Resources and Cultural Heritage Landscapes	▪ Disturbance or destruction of built heritage resources and / or cultural heritage landscapes ▪ Disturbance or destruction of registered and unregistered cemeteries ▪ Disruption of cultural heritage resources by the introduction of physical, visual, audible or atmospheric elements that are not in keeping with the character and setting of cultural heritage resources

As part of the assessment, consideration will be given to confirming whether net effects of the undertaking could combine with effects of other past, present, and reasonably foreseeable projects (cumulative effects). Cumulative effects are the incremental changes that may occur from the combined influences of multiple activities (Hegmann *et al.*, 1999). Although the effect of each individual activity may not be significant, the additive effects of all activities together may lead to a different outcome. The Code of Practice (MECP 2020) encourages proponents to provide information about potential cumulative effects in the EA since cumulative effects are part of the MECP's Statement of Environmental Values, which are principles the ministry considers when making environmentally significant decisions. The study area for the cumulative effects assessment and identification of projects (e.g., mining, other linear infrastructure) that may act cumulatively with the Project will be determined in the EA.

On March 2, 2020, the Government of Ontario, MFFN and Webequie First Nation announced their agreement to advance planning and development of a proposed Northern Road Link. This is a new proponent and is separate from the Proponent of the CAR Project, where only MFFN is the Proponent. The proposed Northern Road Link would provide reliable, all-season road access to potential mine sites in the Ring of Fire region. A road to the Ring of Fire would be subject to approvals separate and independent from this Project. The Northern Road Link project will be considered for inclusion in the cumulative effects assessment of the Project.

The Minister of Environment and Climate Change determined that a regional assessment of the Ring of Fire region will be conducted pursuant to the *Impact Assessment Act* (IAA) (IAAC 2020b). This is an assessment independent of the EA for the CAR, however, should information relevant to the cumulative effects assessment for the Project arise from the regional assessment of the Ring of Fire within an appropriate timeline it will be used.

The potential environmental effects identified in **Table 7-6** are based on the environmental features that may be affected by the proposed undertaking. A high-level description of the potential effects is provided in the following sections. The potential effects identified within this ToR are preliminary and will be further developed during the EA. The EA will also recommend impact management measures to avoid or minimize potential environmental effects, as well as identify opportunities to enhance benefits to the environment.

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 alternative, based on the principles of the Engineers' Canada Public Infrastructure Engineering Vulnerability Committee protocol and International Standards Organization 31000 and Ontario's Guide for Considering Climate Change in the Environmental Assessment Process (MOECC 2017). Current conditions and future conditions will feed into a climate change risk assessment of the preferred alternative. Indigenous Knowledge compiled through the Indigenous Knowledge Program will be used to guide and inform the climate change risk assessment.

7.2.1 Indigenous Peoples' Rights and Interests

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 Indigenous Peoples through subsequent effects on Indigenous use of lands and resources for traditional purposes. The Project also has the potential to affect Indigenous cultural sites and traditions.

The potential effects to Indigenous Peoples and the exercise of Aboriginal 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 in the availability and / or quality of resources, including potential changes associated with increased access by non-Indigenous land users as a result of the Project, that may influence Indigenous land and resource use activities (e.g., hunting, harvesting, gathering) within the area of the Project;
- Changes in access to lands and resources used for traditional activities (hunting, trapping, fishing, gathering) 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 Aboriginal 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;
- Change to cultural sites such as ceremonial, grave, sacred, gathering and worship areas that may occur in the area of the Project;
- Changes to the experience of being on the land; and
- Changes to cultural traditions and / or the ability to pursue and transmit cultural traditions (i.e., knowledge transmission).

7.2.2 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, volatile organic compounds and GHG emissions. The regeneration of suspended particulates from vehicle movement along the CAR 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.

The 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.

7.2.3 Acoustic Environment

Project construction activities, including equipment and machinery use, geotechnical drilling and blasting, 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. The location of receptor locations will be informed by input received through the Indigenous Knowledge and consultation programs, where applicable.

7.2.4 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. Quarries, borrow areas and aggregate source areas are likely to be sourced locally, which will create pits and 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. Aggregate rock, with potential for Acid Rock Drainage and Metal Leaching may result in changes to surface and groundwater chemistry. 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. Road salt is not expected to be used during winter maintenance, however, the EA will conservatively assess the potential effects of road salt on soil quality, particularly along the road edges.

7.2.5 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 anticipated that effects to surface water will be primarily related to sediment and erosion, potential introduction of contaminants from accidental releases and from materials uses during road maintenance (e.g., road salt and dust suppressants), use of quarry, borrow and aggregate materials having acid rock drainage or metal leaching potential. Changes to surface water quality and quantity may cause indirect effects to other environmental disciplines such as fish and fish habitat, and 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, sand and dust suppressant 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.

The Project will consider MNRF and DFO recommended practices outlined in *Ministry of Natural Resources and Forestry / Fisheries and Oceans Canada Protocol for the Review and Approval of Forestry Water Crossings* (MNRF / DFO 2016) and *Environmental Guidelines for Access Roads and Water Crossings (MRNF 1990)*.

7.2.6 Groundwater

Construction activities such as use of quarry, borrow and aggregate materials having acid rock drainage or metal leaching potential, dewatering, water use, and the creation of impervious surfaces have the potential to result in effects to groundwater quality, quantity and flow. 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. Mapping that identifies the location and parameters of registered and unregistered groundwater supply wells will be provided in the EA as applicable. Should effects to wells be predicted in the EA, impact management measures and corrective actions will be recommended.

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.

7.2.7 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, including SAR and traditional use plants.

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 due to changes in soil and / or surface water 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 and ecological communities. Fragmentation of vegetation and ecological communities, such as wetlands, 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 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). Materials used during road maintenance (e.g., road salt or dust suppressants) may have an indirect effect on vegetation and wetlands along the road edge through a potential change in soil and / or surface water quality.

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

7.2.8 Wildlife

Potential effects on wildlife and wildlife habitat, including SAR, 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 7.2.7**) 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), and 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 may 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., amphibian breeding 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., breeding season).

Noise, lights, and human presence have the potential to change wildlife behaviour through disturbance or attraction of wildlife (e.g., insects attracted to lights). 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 and traditional resource use. This has the potential to result in an increase in hunting pressure and predation due to increased sight-lines along linear corridors, a change to seasonal migration pathways, higher risk of the introduction of invasive species, parasites and disease, and the accidental release of contaminants to waterbodies.

7.2.9 Fish and Fish Habitat

The EA will assess potential effects of the Project on fish and fish habitat, which will consider fish species that have the potential to be located within the study area. Project-related effects on surface water quality and quantity (**Section 7.2.5**) may result in indirect effects on fish and fish habitat, including SAR. 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 (e.g., 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 provincial and federal guidelines and standards to avoid harmful alteration, disruption or destruction of fish habitat.

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.

7.2.10 Social, 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 and Project procurement. For example, the location of the CAR relative to trapping areas may affect 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 affect the availability of housing for community members. If population increases or demographics change, strain on public services and infrastructure may also occur. These changes may also change use of Indigenous languages and affect the well-being of the community, including social cohesion.
- Changes in population and access to the Far North for recreational activities (e.g., fishing and hunting) may alter the ability of Indigenous communities to access country foods.
- The Project may result in effects to human health by altering public safety (including potential increased illicit activities, conflicts and other potential harms to communities and their members), 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 in access, wildlife, vegetation or water resources. These changes may affect the enjoyment of these activities, which may affect the tourism sector such as potential negative effects due to public access, and / or enabling new tourism, including cultural tourism, through improved access.
- 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 existing and 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. Certain landscapes are more susceptible to change and more sensitive due to the angle, distance of viewer, as well as the cultural significance to viewers.

The CAR may also provide benefits in the form of skill development, training and job creation. Potential benefits 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; and
- Increase of band members living year-round in the community.

It is possible that barriers may exist that may prevent or affect the ability to participate in Project benefits. Potential barriers, should they exist, will be identified during the EA, and where feasible, measures to enhance benefits of the Project will be considered.

7.2.11 Archaeology and Cultural Heritage

Archaeology and cultural heritage resources (archaeological resources, built heritage resources and cultural heritage landscapes) may be affected by the Project. Potential environmental effects to archaeology and cultural heritage resources include the potential to disturb or destruct resources within the area of the Project through ground disturbance activities (e.g., vegetation clearing and grading) and vibration generated by heavy equipment.

Technical cultural heritage studies (e.g., archaeological assessment[s], Cultural Heritage Report: Existing Conditions and Preliminary IA) will be undertaken during the EA process and will identify preliminary effects and recommend avoidance and / or impact management measures where potential effects on archaeology and cultural heritage resources are predicted to occur.

8. Assessment and Evaluation

An assessment and evaluation of the alternative methods (i.e., alternative routes and temporary infrastructure, including quarries, borrow areas and aggregate source areas) 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 or minimize identified effects, as well as identify opportunities to enhance benefits to the environment;
- 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, duration, frequency, reversibility and likelihood to determine significance;
- Complete a comparative analysis of the potential net effects between the alternatives;
- Consider the environment, cost and constructability of the alternatives, and compare the advantages and disadvantages of each;
- Identify and describe the preferred alternative, which is that alternative that has comparatively more advantages and less disadvantages;
- Complete a comparative analysis of the advantages and disadvantages of the preferred alternative against the “do nothing” alternative;
- Predict cumulative effects that may result from a combination of the net effects of the preferred alternative with the effects of other past, present and reasonably foreseeable projects; and
- Identify a monitoring framework for the preferred alternative 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 how alternatives will be compared, proposed criteria and indicators, and assessment and evaluation of net effects in the EA is provided in the following sections. As outlined in the Consultation Plan (**Appendix B**), MFFN will seek input from neighbouring Indigenous communities, including vulnerable groups such as women, youth and the elderly, as well as from government agencies and interested persons, on the proposed method to assess and evaluate the alternatives and cumulative effects.

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. The process of each step of the proposed assessment method will be described 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 alternatives 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, with the net effects (**Section 8.3**), and advantages and disadvantages (**Section 8.4**) compared as follows:

- Segment BE of Alternative 1 vs. Segment AE of Alternative 4;
- Segment CD (western option) of Alternative 4 vs. Segment CD (eastern option) of Alternative 4;
- Segment FG of Alternative 1 vs. Segment FG of Alternative 4; and
- Segment HI of Alternative 1 vs. Segment HI of Alternative 4.

Segments EF, GH and IJ 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 are anticipated to become part of the preferred alternative.

The specific locations of the Project components of the CAR are not yet known and will be determined in the EA. Therefore, the above noted comparison of the alternative routes is subject to change and will be documented in the EA. The results of the comparison will be the identification of the preferred alternative, which will be the combination of segments that has comparatively more advantages and less disadvantages.

8.2 Proposed Criteria and Indicators

A preliminary list of criteria has been developed to assess the effects of the Project on the environment. The preliminary list of criteria is linked to the components of the environment listed in the EAA, including natural, social, economic and cultural environments. The potential effect on each criterion is measured through perceived changes to one or more indicators that are assigned to each criterion. 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 alternatives 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 comments received through consultation.

8.3 Assess and Evaluate Net Effects

As described in **Section 8**, net effects of the alternatives 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 net effects characteristics listed below.

The assessment will include both direct and indirect effects of each alternative. A direct effect occurs when there is a change due to a project activity, whereas an indirect effect occurs when a change to a criterion resulting from a project activity causes a change to another criterion (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

8.4 Advantages and Disadvantages

The EA must include an evaluation of the advantages and disadvantages to the environment of the undertaking and alternatives. The evaluation will include the alternative methods and the do nothing alternative. The advantages and disadvantages will be based on a comparison of the predicted net effects, and technical consideration of cost and constructability, such as capital cost, maintenance cost, route length, borrow availability, safety and construction implementation.

The results of the comparative analysis of the advantages and disadvantages will be the identification of the preferred alternative. The preferred alternative will be compared against the “do nothing” alternative and used to predict cumulative effects.

Marten Falls 65

Aroland First Nation

Nakina

Western Ogoki River Crossing Option

ALBANY RIVER PROVINCIAL PARK

OGOKI RIVER PROVINCIAL PARK

LITTLE CURRENT RIVER PROVINCIAL PARK

PAINTER LAKE RD

ANACONDA RD

OGOKI RD

643

584

Key Map

Windsor Lake

Fort Hope 64

Marten Falls 65

Aroland First Nation

Nakina

Armstrong

Lake Nipigon

Geraldton

Hornepayne

Manitouwadge

Kabinakagami Lake

Dog Lake

Lake Superior

Map Location

Legend

- Route Alternative Nodes
- Study Area

Route Alternatives

- 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

Aug, 2020	1:600,000 * when printed 11"x17"	**Data Sources:** MNRF, MMAH, NRCAN. Contains Information licensed under the Open Government Licence Ontario.
P#:60593122	Rev:00	

AECOM

Figure 8-1

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-12_Fig8-1_AlternativeRoutesandSegments_R1_60593122.mxd
Date Saved: 8/24/2020 8:45:03 AM User Name: Stephanie.Clark

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 preparation of the ToR and EA process. This will include commitments arising throughout the environmental planning process related to the following:

- Development and implementation of impact management measures to avoid or minimize potential environmental effects, identify opportunities to enhance benefits to the environment;
- Completion of required works and field investigations;
- Receipt of regulatory approvals, prior to construction;
- Development and implementation of plans for environmental monitoring, including the need for follow-up on report recommendations;
- Continued consultation with Indigenous communities, including relevant sub-groups (e.g., women, youth, elders), government agencies 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.

9.1.1 Commitments Identified during the Terms of Reference

Where appropriate, questions, comments and concerns received on the Project have been incorporated into the applicable sections of the ToR. All comments received and responses to each are included in the Record of Consultation (RoC) found in **Appendix C**. The RoC also identifies where within the ToR each comment has been addressed. Where questions, comments or concerns could not be addressed within the ToR, a commitment for the EA has been made. These commitments are listed below. Where comments received have been reflected in the Proposed ToR, they have not been repeated in the list of commitments.

The following is a list of commitments identified during development of the ToR:

- MFFN will provide information on ownership, maintenance and liability in the EA, if available at the time of preparing the EA.
- MFFN will provide information on road access and user fees in the EA, if available.
- MFFN will prepare technical work plans on the environmental components, effects assessment methods and cumulative effects assessment methods at the onset of the EA, including an opportunity for technical review by applicable agencies.

- MFFN will engage in waste disposal discussions with the Municipality of Greenstone and possibly other municipalities to understand what waste disposal options will be available to the Project. MFFN will also engage with license waste disposal haulers and disposal sites in nearby municipalities as required.
- MFFN will discuss and confirm any permitting requirements with provincial, federal government and other jurisdictional agencies to acquire permits and approvals necessary to facilitate construction.
- MFFN will identify and describe the location of existing infrastructure during the EA. To aid in the description of existing infrastructure, inclusion of a map of existing infrastructure will be considered where practicable.
- MFFN will continue to share information on caribou and migration as it relates to the Project and as it becomes available on an ongoing basis to neighbouring Indigenous communities and interested persons.
- MFFN will follow-up with an interested stakeholder to identify the brook trout spawning area shared during consultation.
- MFFN will engage with MECP prior to deployment of the ambient air quality monitoring equipment to discuss the requirements of, and how air quality monitoring will meet the Operations Manual for Air Quality Monitoring in Ontario.
- MFFN will assess potential effects to peatlands in the EA. An estimate of the length of road corridor that will cross through peatlands will be provided in the EA.
- MFFN will assess potential effects to subsistence economies in the EA.
- MFFN will review data sources suggested in comments received on the Draft ToR to confirm if they are applicable to the Project and should be used to inform the EA.
- MFFN will seek direction from MNRF related to options for unusable timber.
- MFFN will continue to engage relevant provincial and federal ministries throughout the duration of the Project to better understand the potential for any land claims that may need to be considered in the EA process.
- MFFN will continue outreach and consultation with Indigenous communities, and will work with communities to set up a MOU where appropriate.
- MFFN will identify how Indigenous land use has changed as a result of cumulative effects. This will be informed by information received through the Indigenous Knowledge Program, where applicable.

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.

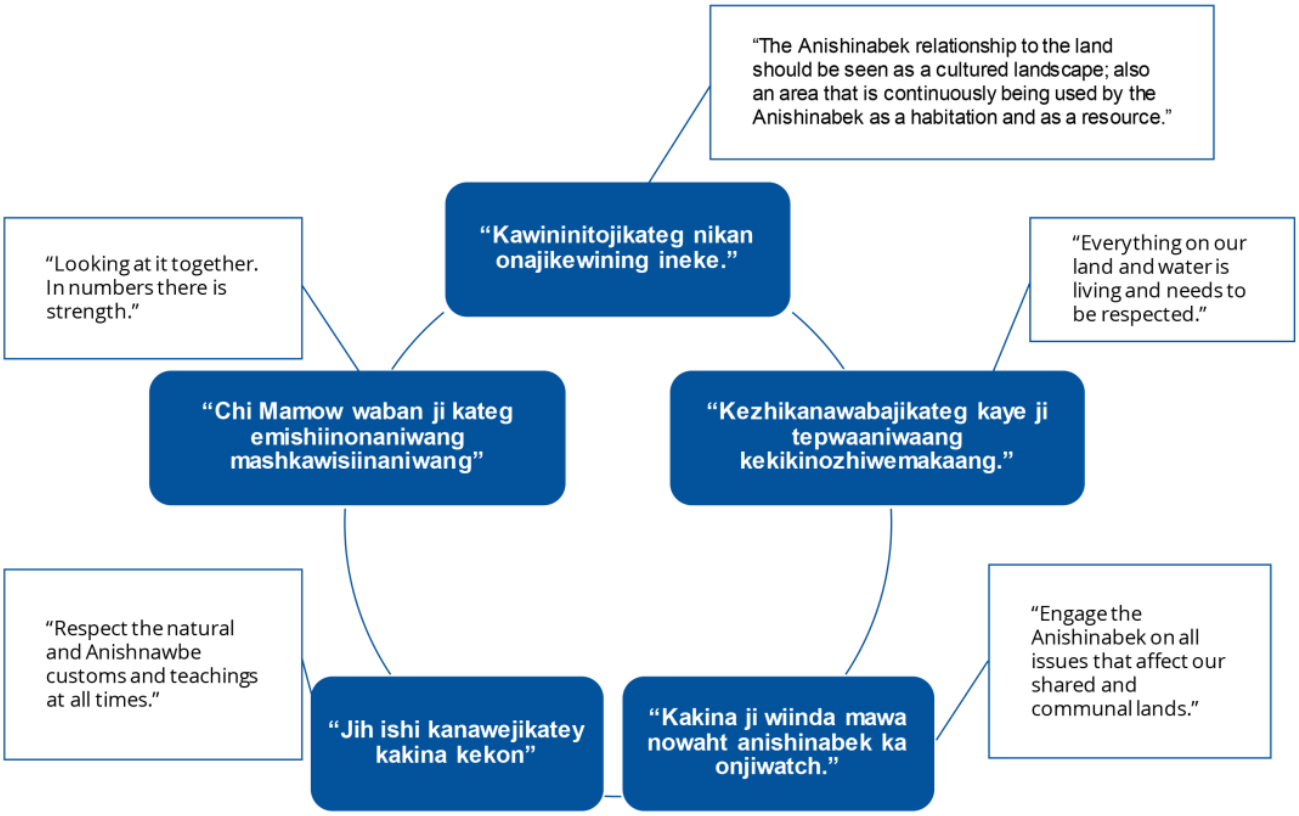
10. Consultation During the Terms of Reference

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 provide opportunities for neighbouring Indigenous communities and interested persons to provide input and inform the effects assessment, impact management measures and follow-up as required by the provincial EAA. MFFN is committed to creating and sustaining constructive dialogue and relationships with MFFN community membership, neighbouring Indigenous communities, government agencies and interested persons to support the environmental, social and economic sustainability of the Project.

To honour the traditional lands that the CAR is proposed to be developed on and to respect MFFN traditional teachings[14], the Guiding Principles presented in **Figure 10-1** will be followed throughout all Project-related consultation and engagement activities and the EA process, from preparation of the ToR to preparation of the EA. These principles have been endorsed by the MFFN Chief and Council.

Figure 10-1: Guiding Principles



14. *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 ongoing communication and dialogue throughout the EA process with MFFN community membership, neighbouring Indigenous communities and their memberships, government agencies and interested persons;
- Working with neighbouring Indigenous communities to confirm existence of, align with and respect protocols and policies for Anishinabek Knowledge and Indigenous Knowledge and / or leading collection of Indigenous Knowledge;
- Customize Consultation Plans to meet neighbouring Indigenous community needs;
- Delivering Project-related information in a timely and culturally sensitive manner, using plain language translations (e.g., Oji-Cree and other traditional languages as needed) and visual aids to enable understanding;
- Facilitating multiple and ongoing opportunities for dialogue and conversations, and encouraging participation of relevant subgroups self-identified by those being engaged or consulted with (e.g., women, youth, elders);
- Providing sensitivity to cultural practices, events and activities of neighbouring 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 and potentially affected Indigenous communities listed in **Section 10.2.2** ongoing opportunities to share their concerns, questions and opinions on potential effects of the Project, their knowledge of the local environment, input on the effects assessment and its conclusions, the development of impact management measures and management strategies; and
- Demonstrating how feedback was considered and / or incorporated into decision-making, including providing direction as to where feedback is included in the EA.

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 affect 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 Terms of Reference

The MFFN Project Team has been actively consulting and engaging MFFN community members, government agencies, and interested persons on the Project since 2017. These consultation and engagement 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 – Alternatives Development* (AECOM 2020)**.**

Section 10.2 describes the results of the consultation and engagement program that has been undertaken during the preparation of the ToR, from the NoC n March 2019 to July 31, 2020, just prior to the submission of the Proposed ToR. The consultation and engagement activities undertaken during the preparation of the ToR and inputs have also fed into the development of the Consultation and Engagement Plan to Support the Environmental Assessment / Impact Statement (**Appendix B**), herein referred to as the Consultation Plan and outlined in **Section 11**.

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

- **Terms of Reference Introduction**
  An overall introduction to the Project and the EA process was provided during initial conversations with Indigenous communities and 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 a round of Public Information Centres (PICs). During these activities, the Proponent was identified, and objectives, components and potential effects of the Project were discussed, as was the ToR and EA processes, including schedules and proposed consultation and engagement 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 affected by development of the CAR.

- **Draft Terms of Reference Review**
  This period of consultation was initiated with the December 2019 release of the Draft ToR, and Plain Language Guide to the Draft ToR, for review by MFFN community, neighbouring Indigenous communities, government agencies and interested persons. A second round of PICs were held in December 2019 specific to the Draft ToR, and the MFFN Project Team extended offers to meet with interested Indigenous communities on the Draft ToR throughout January 2020 to early March 2020. Feedback obtained helped to inform the Proposed ToR including the Consultation Plan (**Appendix B**). In June 2020 the Indigenous communities were provided community-specific RoC materials for review and comment prior to release of the Proposed ToR. As part of the RoC material review, Indigenous communities that had not provided comments during the Draft ToR review period were offered another opportunity to comment on the Draft ToR. Offers to hold discussions were made and the Indigenous communities were informed of the anticipated timing for submission of the Proposed ToR to the MECP.

- **Proposed Terms of Reference Review**
  The Proposed ToR is submitted to the MECP for an approval decision. As part of this process, the availability of the Proposed ToR for review and comment is 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 during the EA. It outlines 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 and engaged. Indigenous communities, government agencies and interested persons are encouraged to review and provide input on the Proposed ToR.

Figure 10-2: Terms of Reference Consultation Activities

10.2.1 Project Notifications and Information Releases

On March 6, 2019 the NoC for the ToR was circulated to the MFFN community, neighbouring Indigenous communities, and interested persons, which includes individuals or groups that are potentially affected 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 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.

The NoC was provided in English and French.

To support the circulation of the NoC for the ToR, 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. The MFFN Project Team worked with MECP to finalize a circulation list that provided geographic coverage in a variety of mediums (e.g., mail, fax, email, newspapers and radio) for potentially interested Indigenous communities and persons. A copy of the Notice and other Project-related information was posted on the Project website. The Notice is included 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.

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., NoC, PIC invitations) and other Project-related materials such as mapping.

On April 12, 2019, a notice was circulated to the MFFN community, neighbouring Indigenous communities and interested persons for PIC #1 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, TBNewsWatch and Wawatay Radio (30 second radio ads during the week of April 15 to 19, 2019) (**Appendix C**).

The Notice of Publication of the Draft ToR and second round of PICs held on December 10 and 11, 2019 was published November 26, 2019 and placed in local newspapers and radio (i.e., the Chronical Journal, Thunder Bay Source, Wawatay Radio). PIC #2 was also advertised on the Project website, placed on the Thunder Bay News Watch site, circulated to the Project Contact List, including neighbouring Indigenous communities. The PIC #2 notice is provided in **Appendix C**.

The PIC #2 in Thunder Bay was held on the same day (December 10, 2019) as the Matawa Environment Gathering. The organizers of the Matawa Environment Gathering shared the invite to PIC #2 with delegates. MFFN Project Consultant and MFFN Community Member Advisor had a booth at the Matawa Environment Gathering and talked to attendees about the Project (**Section 10.2.3**).

The Draft ToR was released for review and comment on December 4, 2019 on the Project website with an original comment period end date of January 20, 2020. The comment period end date was later extended until February 7, 2020 (a 63-day review period) upon request of several Indigenous communities. The Draft ToR was also provided in print and / or on a USB drive to Indigenous communities, members of the EA Government Review Team, and at the following public viewing locations:

- MECP Environmental Assessment and Permissions Branch (Toronto);
- MECP Thunder Bay District Office;
- Greenstone Public Library – Geraldton Branch;
- Greenstone Public Library – Long Lac Branch;
- Thunder Bay Public Library – Waverley Resource Library; and
- Timmins Public Library.

To support the circulation of the Notice of Publication of the Draft ToR, a notice was distributed via mail and email to persons identified on the Project Contact List and advertisements were placed on Wawatay Radio daily between December 2 to 10, 2019. A copy of the Notice was posted on the Project website on December 2, 2019. The Notice, included in **Appendix C,** was published in the following newspapers:

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

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 – Alternatives Development* (AECOM 2020).

Listed below in **Table 10-1** are, according to the MECP (in a letter dated December 19, 2018), the neighbouring Indigenous communities to be consulted and engaged on the basis that they have (or may have) constitutionally protected Aboriginal or Treaty Rights that may be adversely affected by the CAR and / or who may be interested in

the Project. Mishkeegogamang First Nation was added to the list of neighbouring Indigenous communities to be consulted on the Project based on the Agency's "Preliminary List of Indigenous Communities for Proponent Engagement on the Marten Falls Access Road". Therefore 23 Indigenous communities were identified for engagement. Although Mishkeegogamang First Nation has not yet expressed interest in the Project, they are being provided information in conjunction with the neighbouring Indigenous communities who might be affected by or have an interest in the Project.

The letters received by MFFN (as Proponent) from the MECP and the Agency are provided in **Appendix C**.

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

Tribal Council Affiliation *(Provincial Territorial Organization)*	**Community or Organization**	
Matawa First Nations (Nishnawbe Aski Nation)	♦ **Marten Falls First Nation** (Proponent and potentially affected Indigenous community) ♦ Aroland First Nation ♦ Constance Lake First Nation ♦ Eabametoong First Nation (Fort Hope)	♦ Ginoogaming First Nation ♦ Neskantaga First Nation ♦ Nibinamik First Nation ♦ Webequie First Nation
Matawa First Nation and the Union of Ontario Indians (Nishnawbe Aski Nation)	♦ Long Lake #58 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	♦ Kitchenuhmaykoosib Inninuwug First Nation	
Independent First Nations (Nishnawbe Aski Nation)	♦ Mishkeegogamang First Nation ♦ Weenusk First Nation	
Nokiiwin Tribal Council	♦ Animbiigoo Zaagi'igan Anishinaabek First Nation (AZA)*	
Métis Nation of Ontario (MNO)	♦ Métis Nation of Ontario (MNO); Region 2*	
Independent Métis Nation	♦ Red Sky Métis Independent Nation (RSMIN)*	

*Notes: * Indigenous communities or organizations identified by MECP who should be consulted on the basis that they may be interested in the CAR.*
***MECP indicated in a letter to MFFN that Long Lake #58 First Nation was moved from interest-based to rights-based.*

To date, 15 of these communities have expressed an interest in the Project and meeting to better understand the Project. Those communities MFFN has met with during the ToR preparation period are indicated with an asterisk below (*):

- Marten Falls First Nation*;
- Aroland First Nation*;
- Attawapiskat First Nation*;
- Neskantaga First Nation;
- Nibinamik First Nation;
- Eabametoong First Nation (Fort Hope)*;
- Webequie First Nation*;
- Red Sky Métis Independent Nation
- Fort Albany First Nation*;
- Ginoogaming First Nation;
- Animbiigoo Zaagi'igan Anishinaabek;
- Constance Lake First Nation;
- Long Lake #58 First Nation;
- Kitchenuhmaykoosib Inninuwug First Nation*; and
- Kashechewan First Nation.

The remaining eight 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 ongoing basis to these communities. These communities include:

- Wunnumin Lake First Nation;
- Wapekeka First Nation;
- Wawakapewin First Nation;
- Weenusk First Nation;
- Kingfisher Lake First Nation;
- Kasabonika Lake First Nation;
- Mishkeegogamang First Nation; and
- Métis Nation of Ontario, Region 2.

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

Ontario (MECP and ENDM) and MFFN entered 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. The Marten Falls-Ontario MOU on Shared Consultation Responsibilities was signed on January 7, 2020 and defines the roles and responsibilities of both parties in regard to the consultation of Indigenous communities whose Aboriginal or Treaty Rights may be adversely affected by the proposed Project and interested persons. A copy of the Marten Falls-Ontario MOU on Shared Consultation Responsibilities is provided in **Appendix D.**

The identified Indigenous communities were provided early notice of the Project through a letter from MFFN on December 13, 2018. They also received the NoC of a ToR in early March 2019 and were sent a follow-up letter on April 4, 2019. Copies of the letters and Notice are in **Appendix C**. Attempts were made to contact each Indigenous community by phone to determine if they may have an interest in the Project.

All identified Indigenous communities have been contacted by the MFFN Project Team 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 RoC (**Appendix C***)* outlines the attempts to consult and engage with Indigenous communities from the NoC to July 31, 2020. Comments, issues and questions received from Indigenous communities that can be shared publicly are included in the RoC.

Ontario made available participant funding to 18 Indigenous communities whose Aboriginal or Treaty Rights may be adversely affected by the Project. These communities were invited to request participant funding to support their review of the ToR and EA.

Each Indigenous community listed in **Table 10-1** was provided in December 2019 a print and / or electronically a Plain Language *Guide to the Draft ToR* (also translated to Oji-Cree), along with the Draft ToR, and an offer to meet to 'walk through" the Draft ToR if interested. No communities requested a conference call or meeting in response to this.

In January 2020, follow-up calls were made to the Indigenous communities to confirm that the Draft ToR package was received and to determine whether there were any questions and interest to meet or have a discussion about the Draft ToR. On January 27, 2020 the Indigenous communities were informed by email that the Draft ToR comment period was extended to February 7, 2020.

Comments on the Draft ToR were received by the following seven Indigenous communities:

- Aroland First Nation;
- Attawapiskat First Nation;
- Fort Albany First Nation;
- Ginoogaming First Nation;
- Long Lake #58 First Nation;
- Neskantaga First Nation; and
- Webequie First Nation.

Weenusk First Nation
Kitchenuhmaykoosib First Nation
Wapekeka First Nation
Kasabonika Lake First Nation
Wawakapewin First Nation
Webequie First Nation
Kingfisher Lake First Nation
Wunnumin First Nation
Nibinamik First Nation
Attawapiskat First Nation
James Bay
Attawapiskat First Nation
Fort Albany First Nation
Kashechewan First Nation
Neskantaga First Nation
Eabametoong First Nation
Marten Falls First Nation
Mishkeegogmang First Nation
ONTARIO
Aroland First Nation
Long Lake No.58 First Nation
Constance Lake First Nation
Animbiigoo Zaagi'igan Anishinaabek First Nation
Ginoogaming First Nation
Nipigon
Red Sky Métis Independent Nation
Thunder Bay
UNITED STATES
Lake Superior
Lac Supérieur

Legend

Route Alternatives

- Alternative 1
- Alternative 4

Neighbouring Indigenous Communities

- First Nation Reserve

Marten Falls First Nation
All Season Community Access Road

Location of Neighbouring Indigenous Communities

0 10 20 40 60 80 100
Kilometres

Datum: NAD 1983 UTM Zone 16N

Aug, 2020	1:2,500,000 * when printed 11"x17"	Data Sources: MNRF
P#:60593122	Rev:00	

AECOM

Figure 10-3

Contains information provided by Ontario Ministry of the Environment, Conservation and Parks or by Ontario Ministry of Natural Resources and Forestry (Copyright: Queen's Printer of Ontario 2020), through a Sensitive Data License Agreement. This drawing has been prepared for use of AECOM's client and may not be reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. The use of Sensitive Data in this drawing does not constitute an endorsement by the Ministry for this drawing or by AECOM of the Sensitive Data.

Map location: P:\60593122\900-CAD_GIS\920-929 (GIS-Graphics)\Design\01_Reports\TOR\20200716_Updates\MXD_2020-08-28_Fig10-3_IndigenousCommunities _R1_60593122.mxd
Date Saved: 8/28/2020 12:22:15 PM User Name: Stephanie.Clark

In early February 2020, emails were sent to the above communities acknowledging receipt of and thanking them for their comments on the Draft ToR.

Outreach efforts and correspondence with the Indigenous communities continued in February and March 2020 regarding their interest in the Project and the potential to meet / discuss the Project. Due to the onset of the COVID-19 pandemic in March 2020, plans for in-person meetings with Indigenous communities were put on hold. However, MFFN continued to share information on the Project and in early April 2020 emailed a Project update newsletter. Outreach also took place throughout May 2020 regarding the scheduling of future discussions and the development of agreements / MOUs.

Nine communities, including MFFN, have expressed interest in participating in the Indigenous Knowledge Program to support the EA. An email regarding the Indigenous Knowledge Program was sent in May 2020. The email included the December 5, 2019 letter and draft information sharing agreement previously provided. The Indigenous communities were asked about their interest in the Indigenous Knowledge Program and if they had any questions.

In June 2020 all Indigenous communities were sent an email and a letter package via mail that included the community-specific RoC materials. The Indigenous communities were requested to provide comments on the materials by July 22, 2020 in advance of the materials being published as part of the Proposed ToR. Further, the RoC materials for the Indigenous communities that commented on the Draft ToR included responses to their comments. A request for discussion were made to Aroland First Nation and Neskantaga First Nation to seek clarification on the Draft ToR comments. For those Indigenous communities that did not provide comments on the Draft ToR, the letter indicated that MFFN is still open to receive their comments and / or having a discussion about any concerns or comments they may have. Follow-up emails and / or phone calls were made to confirm receipt of the letter with the community-specific RoC materials. Additional comments on the Draft ToR were provided by Fort Albany First Nation and a follow-up call was held with community representatives in July 2020.

Throughout preparation of the ToR, the MFFN Project Team has made many efforts to consult and engage with the identified Indigenous communities as follows:

- Submission of Project notifications and Project updates, including five newsletters;
- Emails and phone calls to confirm interest in being consulted on the Project (a minimum of nine phone calls being made to each Indigenous community);
- Holding conference calls with community representatives and / or in-community meetings with 11 communities;
- Letters sent to the communities (August 2019) from Ontario advising them of the availability of funding to support their involvement in the ToR / EA process;
- Invitations to two PICs;
- Notifications regarding field survey activity;
- Letters and follow-up calls regarding interest in participation in the Indigenous Knowledge Program to support the EA;
- Voluntary release of a Draft ToR and Plain Language Guide (also translated to Oji-Cree) for review and comment;
- Offers to meet / discuss the Draft ToR;
- Extension of the Draft ToR review period to a 63-day comment period and offer of a second opportunity to provide comments in June 2020;
- Receipt of Draft ToR comments from seven communities;
- Receipt of comments and questions from Indigenous communities as documented in the RoC;

- Submission of a letter to advise of the planned Proposed ToR submission date and the second offer to receive comments on the Draft ToR and a willingness to discuss any concerns or comments;
- Copies of community-specific RoC materials in advance of the materials being published as part of the Proposed ToR; and
- Presentations to Matawa First Nations communities on three occasions.

A detailed record of the efforts made to consult and engage with each of the 23 Indigenous communities and correspondence received from the communities from March 6, 2019 to July 31, 2020 is provided in **Appendix C**. The following sections summarize key consultation activities and issues received through consultation and engagement activities during preparation of the ToR. Further details of these events and how the issues have been addressed in the ToR or will be considered in the EA are provided in **Appendix C**.

While not related to the provincial EA process, the communities were also sent a number of letters and notices by the Agency regarding the federal IA process for the Project. From these efforts, comments were received, and this input has been considered in the preparation of the Proposed ToR.

10.2.2.1 Marten Falls First Nation

During a two-year period leading up to the commencement of the ToR in March 2019, many pre-consultation activities occurred with MFFN community members regarding the Project as documented in *Marten Falls First Nation Community Access Road Supporting Document – Alternatives Development* (AECOM 2020). These meetings addressed a variety of topics and issues including: EA process, provincial agreements, baseline studies and routing options. These meetings resulted in the informing of the MFFN community on the required process, the identification of key areas of interest and potential concern, and input to possible routes for the CAR.

During preparation of the ToR, starting in March 2019, meetings were held with the MFFN community to inform them of the Project and to receive their feedback. **Table 10-2** identifies the four series of meetings that were held with MFFN community members up to the preparation of the Proposed ToR, and provides a summary of comments expressed at each meeting. The RoC (**Appendix C**), includes the meeting minutes and details of the comments made at each meeting. 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 2019 and October 2019 meetings, notices were posted on a Project-specific bulletin board in the community's band office and posted on the community's Facebook page.

Table 10-2: Marten Falls First Nation Community Member Meetings

Date	Meetings Held	Summary of Input	Addressed in the ToR / Consideration in the EA
2019	**March**: Introduce the Project and discuss the provincial EA process 1. Thunder Bay: March 20, 2019 2. MFFN (including discussions with Youth): March 21, 2019	▪ Need to maximize economic development opportunities and questions on what economic opportunities may results from the Project?	Section 7.2.10
		▪ Interest in understanding cumulative effects.	Section 7.2
		▪ Questions on whether the road use will be available to the public?	Section 5
		▪ The western routes make sense as while they are longer they are on higher ground.	Section 6.3
		▪ How to combine AK and western science?	Section 3.4.2
		▪ Provided input on various values of interest related to: plants, animals, water, air quality (dust), noise and burial grounds.	Section 7
		▪ Suggestions provided on how to consult with MFFN community, including elders.	Consultation Plan (Appendix B)

Table 10-2: Marten Falls First Nation Community Member Meetings

Date	Meetings Held	Summary of Input	Addressed in the ToR / Consideration in the EA
		▪ Questions why 22 other communities need to be consulted with?	Section 10.2.2
		▪ Suggestions made on the Project benefits.	Section 7.2
		▪ Need to be aware of government influences on this Project.	Sections 3.1 to 3.3
		▪ Questions about the water crossings required by the different routes.	Section 7.1.4.4
		▪ Input on key issues that will need to be examined in the EA (e.g., noise and social effects).	Section 7
		▪ Question on whether this will be a private or public road?	Section 5
		▪ Questions about Project decision-making and the need for the Project to be community driven.	Section 2.1.1
		▪ Project timelines to be driven by community requirements.	Section 2.1.1
	May: Provide information on the alternative routes and next steps for consultation 1. Thunder Bay: May 6, 2019 2. MFFN: May 7, 2019 3. Geraldton: May 8, 2019	▪ Interest in economic benefits and new social activities that could result.	Section 7.2.10
		▪ After discussion the alternative routes, the participants were generally supportive of the western routes, particularly if the road may be used for industrial purposes – the longer distance was viewed as the only main negative of the western routes.	Section 6.3
		▪ Questions about who will be liable for the road?	Section 2.1
		▪ Comments expressed on the consultation process to date. Speaking with the students is appreciated.	Consultation Plan (Appendix B)
		▪ Future consultations should clearly explain need for the EA and the Duty to Consult requirements of the Project.	Consultation Plan (Appendix B)
	June: 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. 1. Thunder Bay: June 25, 2019 2. MFFN: June 26, 2019	▪ When decisions will be made when construction will start?	Sections 5 and 9
		▪ Want to avoid the road going through the middle of our community.	Section 6.3
		▪ General support for the western routes.	Section 6.3
		▪ Criteria presented are well thought out.	Appendix A
		▪ Road should be built wide enough for large trucks.	Section 5
		▪ Visual effects need to be considered.	Section 7.2.10
		▪ Who will be able to use the road? Will outsiders be able to build cabins along it?	Section 5
		▪ When will the preferred route be identified?	Consultation Plan (Appendix B)
		▪ What happened to the train that was proposed?	N/A
		▪ Comments made on future information in terms of what and how it should be presented to MFFN community.	Consultation Plan (Appendix B)
	October: Describe changes to the IAA 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. 1. Thunder Bay: October 17, 2019 2. MFFN: October 18, 2019	▪ Will this be a mining road?	Section 4
		▪ It appears that there is more focus on this road as a route to the Ring of Fire and that the community access is no longer the priority.	Sections 4 and 5.1
		▪ The need for translator to be present at meetings / that information needs to be translated.	Consultation Plan (Appendix B)
		▪ Need for education on the new federal IAA	Section 11.7
		▪ Questions asked about the community tiering system.	Consultation Plan (Appendix B)
		▪ What is the government's responsibility to consult?	Section 11.2
		▪ The information needs to be less technical.	Section 11.3
		▪ How will violence against women and children be addressed with the Project in place? Concerns about human trafficking.	Section 7.2.10
		▪ Question on assessing the increased hunting and fishing pressure as a result of the road.	Sections 7.2.7, 7.2.8. 7.2.9 and 7.2.10
		▪ How do we consult on treaty rights?	Section 11.2

The purpose of the meetings was to share information about the ToR process including the ToR consultation program, and for MFFN community members to express concerns and issues regarding the Project, to provide feedback on the ToR content including the alternative routes, and to review the proposed Consultation Plan (**Appendix B**) for the EA.

The general format of the meetings in 2019 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 summary are available in **Appendix C.**

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. Discussions with school students planned for the June 2019 in-community meetings were cancelled.

At the May and June 2019 meetings, MFFN community members were provided the opportunity to provide comment on potential alternative routes for the CAR. While attending community members indicated a preference for a CAR with shorter road lengths, community members were also generally supportive of the recommendation to focus the regulatory review process on the western routes (Alternative 1 and Alternative 4). At the October 2019 meetings, when presented with the decision to only carry forward Alternative 1 and Alternative 4 for further study during the EA, the attending community members did not provide further comment.

The MFFN community was provided Notice of Publication of the Draft ToR for comment in December 2019 and provided notice in January 2020 of the ToR comment period extension. Comments on the Draft ToR were not received by MFFN community members. As with all Indigenous communities, consultation activities were paused in March 2020 due to the COVID-19 pandemic. In April 2020, a Project Newsletter was released providing an update to the Project. Due to the continued restrictions on in-person gatherings associated with the COVID-19 pandemic, online virtual engagement to consult MFFN community on the Proposed ToR is planned as part of the community-led process to occur prior to the submission of the Proposed ToR to the MECP.

To update MFFN on changes made to prepare the Proposed ToR, a series of online-based communications and engagement activities are being offered prior to submission to the MECP. These activities are being offered in lieu of in-person consultation and engagement due to COVID-19 health concerns. These activities are listed below:

- Creation of a ‘virtual room’ that provides access to informational videos, links to background documents and text / visual content related to the ToR;
- Opportunity to submit questions and comments;
- Updates to the Project website including Project factsheets and Project Newsletter.; and
- Two teleconferences with Chief and Council anticipated to occur during September 2020.

The RoC (**Appendix C**) provides a listing of all inputs received from the MFFN community, responses to those comments and an indication of how those comments have been addressed in the ToR or will be considered in the EA.

10.2.2.2 Neighbouring Indigenous Communities

Table 10-3 provides a summary of consultation with neighbouring Indigenous communities that has occurred from March 6, 2020 to July 31, 2020. A summary of key comments and / or issues raised, and how they have been addressed or will be considered in the EA is summarized in the table. Further details regarding the issues raised by the Indigenous communities including comments provided on the Draft ToR, MFFN’s responses to the Draft ToR comments, presentation materials used at the meetings and meeting summaries are available in **Appendix C**.

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
Animbiigoo Zaagi'igan Anishinaabek (AZA)	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ Funding available for participation ▪ In support of Project	▪ Section 10 ▪ N/A
Aroland First Nation	• One in-person community meeting • Three conference calls • Five letters were received • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; no comments were received • Development of Aroland First Nation-MFFN MOU	▪ Request / discussion on Aroland First Nation-MFFN MOU ▪ Indigenous Knowledge Sharing Agreement ▪ Request for meeting ▪ In support of Project ▪ Northern Road Link ▪ Support for collaborative participation in planning and management of the Project ▪ Community Consultation Coordinator role ▪ Comments provided on the Draft ToR included, but are not limited, to the following: – Consultation Methods – Federal IA process – Provincial EA process – Indigenous Knowledge – Indigenous use of land and resources – Aboriginal and Treaty Rights – Monitoring – Alternatives To – Alternative Means – Potential effects on various components on the environment – Waste Management	▪ MFFN Project Team continues to work with Aroland First Nation to finalize the MOU ▪ Section 3 ▪ MFFN Project Team continues communications with Aroland First Nation to schedule a meeting ▪ N/A ▪ Section 7 ▪ Section 10 ▪ MFFN Project Team is working with Aroland First Nation for the Community Consultation Coordinator role ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)
Attawapiskat First Nation	• One in-person meeting (a second meeting planned for February 2020 was postponed by ENDM) • Three letters were received • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; no comments were received	▪ Project purpose (community access vs. multi-use) ▪ Request for MOU ▪ Consultation challenges due to COVID-19 ▪ Comments provided on the Draft ToR included, but are not limited, to the following: – Project purpose – Role of the provincial government – Northern Road Link – Aboriginal and Treaty Rights – Consultation and Duty to Consult – Study Area – Climate change – Effect of temporary infrastructure	▪ Section 4 ▪ MFFN Project Team will continue dialogue regarding potential MOU ▪ Consultation Plan (**Appendix B**) ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
		– Field studies – Values of importance – Indigenous knowledge – Human health and community safety	
Constance Lake First Nation	• One teleconference information sharing meeting • Two in-person Project updates for Matawa First Nations members • One letter was received • Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; comments were received	▪ Road alignment ▪ Potential bridge, bridge size and aggregates ▪ Teleconference details do not fulfill Duty to Consult and are for information only ▪ EA completion and route selection process ▪ Funding availability to assess routes ▪ Consideration of water courses and wildlife. ▪ Distribution of field studies findings ▪ Involvement / review of water related information ▪ Scope and timeline ▪ MOU between MFFN and the federal government ▪ Increased accessibility and potential effects to the area ▪ Timing of Indigenous Knowledge Program ▪ Pause on consultation until funding is provided and State of Emergency is lifted ▪ Consultation challenges related to COVID-19	▪ Section 6 ▪ Section 5 ▪ This has been reflected in the RoC and meeting minutes ▪ Sections 3 and 8 ▪ Section 10 ▪ Section 7 ▪ Section 7 ▪ Consultation Plan (**Appendix B**) ▪ Section 5 of ToR and Consultation Plan (**Appendix B**) ▪ MFFN Project Team confirmed they do not have a MOU with the federal government ▪ Section 7 ▪ Section 3 ▪ Section 10 ▪ Consultation Plan (**Appendix B**)
Eabametoong First Nation	• One in-person meeting (part one with Chief and Council, part two with broader community) • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review, no comments were received	▪ Level of engagement and involvement ▪ Understanding technical documents ▪ Northern Road Link ▪ Clarification of EA process ▪ Identification of neighboring Indigenous communities ▪ Community-Based Land Use Planning approval ▪ Consultation approach and methods of engagement activities	▪ Section 11 ▪ Consultation Plan (**Appendix B**) ▪ Section 7 ▪ Section 3 ▪ Section 10 ▪ Section 7 ▪ Sections 10 and 11
Fort Albany First Nation	• One in-person meeting • Two conference calls • Two letters were received • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; comments were received	▪ Road access and effects to wildlife ▪ Economic development plan ▪ Road access and industrial use ▪ Consultation methods and request for ongoing engagement ▪ Request for redistribution of Project materials and amended map ▪ Northern Road Link and cumulative effects ▪ Aboriginal / Treaty Rights ▪ Indigenous Knowledge Program	▪ Section 7 ▪ Section 7 ▪ Sections 4 and 5.2 ▪ Sections 10 and 11 ▪ MFFN Project Team provided the requested materials ▪ Section 7 ▪ Section 7 ▪ Section 3 ▪ Section 7

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
		▪ Project study area ▪ Provincial MOU ▪ Participant funding ▪ Effects of federal IA timeline on EA ▪ Consultation challenges due to COVID-19 ▪ Comments on the Draft ToR: – Indigenous Knowledge and Values – Construction Methods – Field Investigations – Consultation Methods – Federal IA Process – Environmental Effects – Criteria and Indicators – Cumulative Effects – Economic Benefits – Aboriginal Treaty Rights – Surface Water – Fish and Fish Habitat	▪ Appendix D ▪ Section 10 ▪ Consultation Plan (**Appendix B**) ▪ Consultation Plan (**Appendix B**) ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)
Ginoogaming First Nation	• One teleconference call • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; high-level comments were received • One letter was received explaining why only high-level comments on the community-specific RoC were provided	▪ Request for Project information ▪ Consultation challenges due to COVID-19 ▪ Comments on the Draft ToR: – Consultation Methods – Indigenous Knowledge – Aboriginal and Treaty Rights – Indigenous use of lands and resources – Impact management measures – Health and community safety – Employment and training – Caribou – Fish and fish habitat – Availability and use of public services and infrastructure – Aggregates ▪ Northern Road Link	▪ MFFN Project Team provided Project materials ▪ Consultation Plan (**Appendix B**) ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)
Kasabonika Lake First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ No comments or issues raised	▪ N/A

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
Kashechewan First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ Request for meeting in 2020 ▪ Participant funding and route alternatives	▪ Continued discussions to schedule a meeting ▪ Sections 10 and 6
Kingfisher Lake First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ Indigenous community and consultant consultation methods ▪ Potential connection to winter road networks ▪ Source of aggregates ▪ Contributing to Indigenous Knowledge Program ▪ Sharing information for environmental baseline studies ▪ Participant funding	▪ Section 10 and 11 ▪ Unsure at this time, future follow-up with more details ▪ Section 7 ▪ Section 3 ▪ Sections 7 and 11 ▪ Section 10
Kitchenuhmaykoosib Inninuwug First Nation	• One in-person community meeting • Provided Draft ToR for review; no comments were received Provided community-specific RoC for review; no comments were received	▪ Effects on caribou ▪ Road length and location ▪ Road washouts ▪ Stages of consultation ▪ Project timeline ▪ Questioning involvement since Project location is far away from KI First Nation	▪ Section 7 ▪ Section 1 o ▪ Section 7 ▪ Sections 10 and 11 ▪ Section 5 ▪ Section 10
Long Lake #58 First Nation	• One conference call • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; high-level comments were received	▪ Request for extension to provide comments on Draft ToR ▪ Engaging community Knowledge Keepers ▪ Indigenous Knowledge Study Area ▪ Provision of Long Lake #58 First Nation Traditional Territory Map ▪ EA timelines ▪ Aboriginal and Treaty Rights ▪ Consultation challenges related to COVID-19 ▪ Comments on the Draft ToR: – Consultation methods – Aboriginal and Treaty Rights – Indigenous Knowledge – Role of the provincial government – Impact management measures – Health and community safety – Caribou – Fish and fish habitat – Availability and use of public services and infrastructure – Aggregate – Northern Road Link	▪ Section 10 ▪ Section 3 ▪ Section 7 ▪ N/A ▪ Consultation Plan (**Appendix B**) ▪ Section 7 ▪ Consultation Plan (**Appendix B**) ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
Métis Nation of Ontario (MNO), Region 2 (Greenstone Métis Council)	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ MNO, Region 2, will not directly engage with the Project	▪ Section 10
Mishkeegogamang First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ No comments or issues raised	▪ N/A
Neskantaga First Nation	• One conference call • Two in-person Project updates for Matawa First Nations members • Two letters were received • Provided Draft ToR for review; comments were received • Provided community-specific RoC for review; no comments were received	▪ Request to consult with the Province not MFFN Project Team ▪ Provincial-MFFN MOU ▪ Request for collaboration ▪ Methods of communication ▪ Notification of field studies ▪ Request for previous archeological studies / reports ▪ Contribution of Indigenous Knowledge to field studies ▪ Use of social media for Project communication ▪ Project study area ▪ Road ownership and maintenance ▪ EA deadlines ▪ Public road access ▪ Effects of mining claims ▪ Northern Road Link ▪ Alternative routes ▪ Regional EA ▪ Dispute resolution process ▪ Provincial and federal cost sharing ▪ EA and IA timelines ▪ Provision of transportation infrastructure study ▪ Community specific Consultation Plan ▪ Tracking of issues and concerns ▪ Clarification of “consultation” and “engagement” ▪ Inclusion of studies that do not require an Indigenous Knowledge Sharing Agreement ▪ Request for ENDM / MECP material to be included in Project meetings ▪ Collaboration to obtain LiDAR data	▪ RoC ▪ Appendix D ▪ Section 10 ▪ Sections 10 and 11 ▪ Sections 10 and 11 ▪ MFFN Project Team provided the reports ▪ Section 3 ▪ Section 11 ▪ Section 7 ▪ Section 2 ▪ Consultation Plan (**Appendix B**) ▪ Section 5 ▪ Section 7 ▪ Section 7 ▪ Section 6 ▪ Section 7 ▪ Section 11 ▪ Comment referred to Ontario for response ▪ Consultation Plan (**Appendix B**) ▪ Pending applicability for inclusion in EA ▪ Consultation Plan (**Appendix B**) ▪ RoC ▪ MFFN Project Team provided plain language materials to better define terms. ▪ Section 7 ▪ MECP shared requested information ▪ Conversations continue between MFFN and Neskantaga First Nation regarding LiDAR datasets ▪ Section 11 ▪ MFFN Project Team provided archeological studies

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
		▪ Request to review baseline studies and methodology ▪ Request for archeological studies and locations of cultural heritage sites ▪ Socio-economic effects ▪ Location of cultural heritage sites ▪ Consultation challenges due to COVID-19 ▪ Comments on the Draft ToR: – Role of provincial government – Federal IA Process – Provincial EA Process – Indigenous Knowledge – Indigenous use of land and resources – Aboriginal and Treaty Rights – Consultation methods – Cultural Heritage Resources – Economy – Alternative means – Cumulative effects – Aggregates – Human health and community safety	▪ Section 7 ▪ Section 7 ▪ Consultation Plan (**Appendix B**) ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)
Nibinamik First Nation	• One in-person meeting • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ Opportunities for local employment ▪ Provincial funding for community participation ▪ Allocation of Project funding ▪ Duty to Consult ▪ Offer to work with Nibinamik corporation for sourcing aggregates ▪ Request for potential community meeting ▪ Critique of community funding application process (*directed to the province)* ▪ Request to prioritize Aboriginal / community involvement and training during construction (*directed to the province)*	▪ Section 7 ▪ Section 10 ▪ Section 10 ▪ Section 11 ▪ Section 7 ▪ MFFN Project Team will continue to follow-up for a potential community meeting. ▪ N/A ▪ Section 7
Red Sky Métis Independent Nation (RSMIN)	• One in-person meeting • One letter was received • Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review, no comments were received	▪ Participant funding ▪ Wetlands and groundwater ▪ Aggregate sources ▪ Economic development opportunities	▪ Section 10 ▪ Section 7 ▪ Section 7 ▪ Section 7

Table 10-3: Consultation with Neighbouring Indigenous Communities

Community	Summary of Key Community-Specific Consultation Activities[1]	Key Comments and / or Issues Raised	Addressed in the ToR / Consideration in the EA
Wapekeka First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review, no comments were received	▪ No comments or issues raised	▪ N/A
Wawakapewin First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review, no comments were received	▪ No comments or issues raised	▪ N/A
Webequie First Nation	• One in-person community meeting • Two in-person Project updates for Matawa First Nations members • Provided Draft ToR for review, comments were received • Provided community-specific RoC for review; comments were received	▪ Aggregate sources ▪ River crossings ▪ Funding for community participation ▪ Potential for collaborative Indigenous Knowledge program with the Webequie Project ▪ Mushkegowuk Council water studies in the region ▪ Comments on the Draft ToR: – Consultation Methods – Community-led process – Provincial EA process – Federal IA process – Indigenous Knowledge – Human health and community safety – Groundwater – Vegetation – Cultural Heritage Resources – Monitoring – Issues resolution process	▪ Section 7 ▪ Alternatives Development supporting document, ▪ Section 10 ▪ A future Indigenous Knowledge session can be arranged with Webequie during the EA ▪ The MFFN Project Team reached out to Webequie once and to Mushkegowuk Council twice to obtain a copy of the studies ▪ A detailed listing of the community's comments on the Draft ToR, including MFFN's response on how the comment has been considered in the ToR, or will be addressed in the EA is provided in the RoC (**Appendix C**)
Weenusk First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review; no comments were received	▪ No comments or issues raised	▪ No comments or issues raised
Wunnumin Lake First Nation	• Provided Draft ToR for review; no comments were received • Provided community-specific RoC for review, no comments were received	▪ No comments or issues raised	▪ No comments or issues raised

*Note: 1.. Further details regarding the issues raised by the Indigenous communities including dates of activities, comments received, responses provided, presentation materials used at the meetings and meeting summaries are available in **Appendix C**.*

10.2.3 Interested Persons

Consultation and engagement with interested persons undertaken during preparation of the ToR included the release of Project Notices, the development and update of the Project website, two rounds of PICs and meetings with interest groups. An initial list of contact information of interested persons was developed based on discussions prior to the initiation of the provincial EA and during preparation of the ToR. Interested persons are individuals and groups (e.g., associations, non-governmental organizations, industry and academia) 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).

The first round of PICs (PIC #1) were held April 30 and May 1, 2019 in Thunder Bay and the Municipality of Greenstone (Geraldton), respectively. The Notices for the PICs was circulated and advertised as detailed in **Section 10.2.1**. PIC #1 provided an update on the Project, including a look at possible alternatives 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 the display boards and provide comments using the materials and comment forms provided or by having one-on-one discussions with members of the MFFN Project Team. Subject matter experts from the MFFN Project Team were stationed alongside corresponding display board groups to answer questions and comments accordingly.

Approximately 39 individuals attended PIC #1 (30 people on April 30 and nine 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 **Appendix C**, including presentation material used and key issues raised.

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 **Appendix C**.

MFFN submitted an advertisement in September 2019 to be published in the Fall 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 Project website and Project contacts for more information.

MFFN hosted a booth at the Northern Ontario First Nations Environment Conference trade show on October 9, 2019 to raise awareness about the Project. As a result, 19 new email addresses were added to the electronic mailing list.

The MFFN Project Team also attended the Women in Mining Northwestern Ontario and local chapter of the Canadian Institute of Mining, Metallurgy and Petroleum's Winter Showcase on December 3, 2019 and gave a presentation to an audience of individuals who work in mining, exploration and associated service industries. The presentation introduced the Project, discussed the community-led approach and provided a Project update in regard to the EA / IA processes.

The availability of the Draft ToR for review was advertised in early December 2019 as previously described in **Section 10.2.1**. Interested persons were sent an email with details about the Draft ToR and a link to its location on the Project website. Follow-up phone calls were made to tourism operators to confirm if they received the documents and were planning to provide comments. Only one interested person commented on the Draft ToR. Their feedback focused on potential effects to Anishinaabe ancestral landowners, land and water rights, shared

profits from the use of the CAR and consent. The detailed comments, responses, and how the issues have been addressed in the ToR or will be considered in the EA are provided in **Appendix C**.

A second round of PICs (PIC #2) was held on December 10, 2019 in Thunder Bay and on December 11, 2019 in the Municipality of Greenstone (Longlac). PIC #2 was held later in the evening as the Matawa Environment Gathering was held on the same day (and in the same hotel) and the attendees from the Gathering were encouraged to drop-in to PIC #2. Notices for PIC #2 were placed in local newspapers in advance of the meeting and mailed / emailed to those on the Project Contact List as described in **Section 10.2.1**.

The purpose of PIC #2 was to:

- Provide background information on the CAR;
- Provide updates on the CAR and activities that have taken place since PIC #1;
- Communicate feedback heard to-date and how they have been considered;
- Inform and update the public about the provincial EA process;
- Introduce the Draft ToR and inform the public about how they can review and provide feedback;
- Communicate the western corridor alternatives to be further evaluated in the EA, and explain why Alternatives 1 and 4 are preferred over the eastern corridor routes;
- Provide updates on ongoing field studies and the Indigenous Knowledge Program;
- Discuss future consultation activities and opportunities;
- Gather comments, ideas and community values related to the CAR; and
- Outline next steps, including the EA schedule.

The meetings were held in open house format and featured a series of display boards and large printed maps illustrating the study area, route alternatives and locations of field studies completed to-date. A Project newsletter, two-page fact sheet and Plain Language Guide to accompany the Draft ToR were available as handouts. The guide was available in both English and Oji-Cree. MFFN Community Member Advisors and MFFN Project Team members were available to guide attendees through the display boards and answer questions. Participants were encouraged to review display boards and provide comments using the comment forms, or by having one-on-one discussions with MFFN Community Member Advisors and MFFN Project Team members.

Approximately 50 individuals attended PIC #2 (47 people in Thunder Bay on December 10, 2019 and three people in Longlac on December 11, 2019). Attendees included Indigenous community members, members of provincial and federal agencies, members of the public, environmental groups and industry representatives.

A number of comments and questions were raised at the PICs relating to the following topics:

- Community benefits and effects;
- Study process and construction timelines;
- Potential effects to the environment;
- Timing and details of field studies;
- Alternatives;
- Northern road to the Ring of Fire; and
- Request for more information in audio and visual formats.

A detailed description of PIC #2 including the materials presented, comments, questions and responses is available in **Appendix C**.

10.2.4 Crown Government Agencies

Throughout the course of the ToR development, MFFN has discussed the Project with municipal, provincial and federal government agencies during meetings on various aspects of the EA including timing for reviews of the ToR, data availability, alternative routes identification and consultation and engagement activities, particularly as they relate to Indigenous communities.

MFFN has met with the MECP, ENDM, MNRF, MHSTCI, the Ministry of Indigenous Affairs, the Agency, CIRNAC, Health Canada, the Municipality of Greenstone and Environment and Climate Change Canada during the ToR development to seek input and guidance on specific aspects of the ToR (**Table 10-4**).

Table 10-4: Crown Government Agency Meetings

Agency	Date	Location	Notes
MECP, MNRF, ENDM, Ministry of Indigenous Affairs and the Agency	March 7, 2019	Thunder Bay	Consultation Workshop
MECP, MNRF and ENDM	April 4, 2019	Teleconference	Meeting to discuss approach to alternatives in ToR
MECP, MNRF and ENDM	May 22, 2019	Thunder Bay	Consultation Workshop #2
Municipality of Greenstone	May 23, 2019	In-person	Meeting with the Mayor of Greenstone to inform him of the Project and to advise him of future consultation activities
MECP and ENDM	May 30, 2019	Teleconference	Overview of Draft ToR and anticipated schedule
MECP and ENDM	June 6, 2019	Teleconference	Meeting to discuss alternatives assessment for Draft ToR
MECP and ENDM	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 11, 2019	Toronto and Teleconference	Meeting to discuss comments on Record of Consultation
MECP	December 18, 2019	Teleconference	Meeting to discuss Caribou
MECP and ENDM	January 28, 2020	Teleconference	Meeting to discuss Caribou baseline and field studies
MECP, MNRF and ENDM	March 05, 2020	Teleconference	Meeting to discuss Caribou collaring
ENDM	March 23, 2020	Teleconference	Meeting to discuss Indigenous Knowledge
MECP and ENDM	April 8, 2020	Teleconference	Meeting to discuss Indigenous Engagement Strategy
MNRF	April 21, 2020	Teleconference	Meeting to discuss comments on the Draft ToR
ENDM	April 23, 2020	Teleconference	Meeting to discuss comments on the Draft ToR
CIRNAC	May 6, 2020	Teleconference	Meeting to discuss land claims for the Project
MHSTCI	May 7, 2020	Teleconference	Meeting to discuss cultural heritage study approach
MECP	May 19, 2020	Teleconference	Meeting to discuss comments on the Draft ToR
MECP, the Agency and ENDM	May 20, 2020	Teleconference	Meeting to discuss provincial-federal coordination
MECP, ENDM and the Agency	June 18, 2020	Teleconference	Meeting to discuss comments on coordinated Consultation Plan (**Appendix B**)
MECP, ENDM, the Agency, Health Canada and Environment and Climate Change Canada	June 30, 2020	Teleconference	Meeting to discuss alternative approach for air quality baseline monitoring during COVID-19 pandemic
MECP and ENDM	July 23, 2020	Teleconference	Meeting to discuss flexibility within the ToR for accommodating new circumstances

The MFFN Project Team met with MECP, ENDM and MNRF on April 4, 2019 to seek input on the proposed alternatives and method of evaluation. MECP, ENDM and MNRF provided written comments on May 29, 2019. Follow-up meetings occurred on May 30, 2019 and June 6, 2019. Responses to these written comments have been included in **Appendix C** and, where applicable, include references to sections of the Draft ToR (AECOM 2019) that were edited in response to the comments.

The MFFN Project Team 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. The September 19, 2019 meeting was focused on the comments related to consultation. Responses to the written comments have been included in **Appendix C** and, where applicable, include references to sections of the Draft ToR (MFFN 2019) that were edited in response to the comments.

The MFFN Project Team has engaged MECP and MNRF specifically with respect to characterization of existing conditions including field investigations and studies, permit applications, data requests, and the methodology and scope to be used for the caribou baseline and effects assessment. 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. On December 19, 2019 and March 6, 2020, the MFFN Project Team met with the MECP and provided the necessary information for the MECP to run the Caribou Screening Tool for the Project. MECP later confirmed that the MECP will run the Caribou Screening Tool once the preferred alternative is identified.

The City of Thunder Bay and the Municipality of Greenstone are the closest municipalities in proximity to the Project and therefore have been included in the Project Contact List. Prior to the release of the Proposed ToR the Municipality of Sioux Lookout was added to the Project Contact List as a municipality who may also have an interest in the Project. 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 activities. A copy of the presentation materials used at the meeting, as well as a summary of issues raised, is available in **Appendix C**.

The Notice of Publication of a Draft ToR was sent to 37 municipal, provincial and federal agencies on November 29, 2019 including a link to the Project website and location of the Draft ToR (MFFN 2019). Some agencies were also mailed USB's and hard copies of the Draft ToR. In response to the Notice of Publication of Draft ToR, seven government agency representatives requested to be removed from the Project Contact List due to Project location and / or the Project's announcement to undergo a federal IA. The following six government agencies submitted comments on the Draft ToR:

- MECP;
- ENDM;
- MNRF;
- MTO;
- Ministry of Economic Development, Job Creation and Trade; and
- MHSTCI.

Government agency comments on the Draft ToR were related to their area of jurisdiction. The MFFN Project Team met with MECP, MNRF, ENDM, MHSTCI and CIRNAC in April 2020 and May 2020 to review specific comments on the Draft ToR that required clarification or further discussion. The government agency comments received throughout development of the ToR, including comments on the Draft ToR, responses, and how the issues raised have been addressed in the ToR or will be considered in the EA are provided in **Appendix C**.

ENDM, MNRF and the Agency also reviewed and provided comments on a coordinated provincial and federal Consultation Plan (**Appendix B**). The MFFN Project Team met with these agencies on May 20 and June 18, 2020, and comments received have been addressed.

On July 23, 2020, the MFFN Project Team met with the MECP and ENDM to discuss flexibility within the ToR for accommodating new circumstances, including the possibility for changes to the alternative routes due to evolution of the Project throughout the EA process as information becomes known. The ToR has been updated to more clearly identify possible changes that may occur throughout the EA process.

10.2.5 Summary of Changes to the Terms of Reference

Issues and concerns raised throughout the development of the ToR were focused on consultation, Indigenous knowledge in the planning and design process, purpose and description of the Project, alternatives, and effects assessment methods. Where appropriate, the ToR was updated to address the issues and responses as described in **Appendix C**. The following is a high-level summary of the changes made to the ToR based on the issues raised and comments received:

- Update on the status of the Project within the EA / IA processes, as well as a narrowed down list of Class EAs potentially applicable to the Project;
- Information on the Marten Falls-Ontario MOU on Shared Consultation Responsibilities;
- Clarification on the targeted input at each key milestone during EA consultation, including when key decisions of the EA are anticipated to occur;
- Described consultation activities that have taken place since publication of the Draft ToR, and adjusted the RoC and **Section 10** to identify issues and concerns raised, and how they have been addressed in the ToR or will be considered in the EA;
- Emphasis on the importance of Indigenous Knowledge in the planning and design process of the Project;
- Emphasis on the needs of the MFFN community and potential benefits that road may provide as the purpose of the Project;
- Additional information on the rationale to not examine alternatives to within the EA;
- Additional detail on the history of the development of the alternative routes for the EA;
- Clarification that the EA will assess multi-purpose use of the CAR and alternative temporary infrastructure; and
- Clarification that the EA will identify positive, negative, direct, indirect and cumulative effects of the Project.

Some issues and concerns could not be addressed at the time of preparing the ToR and have been identified as commitments for consideration during the EA. Commitments for the EA are included in Appendix C and summarized in **Section 9.1.1**.

10.3 Release of Proposed Terms of Reference

As per the MECP ToR review and approval decision process, the Proposed ToR submitted to MECP for review and an approval decision will be publicly released for review by Indigenous communities, government agencies and interested persons. The Notice of Submission and availability of the Proposed ToR will be advertised, and the Proposed ToR will be distributed in the same manner as was done for the Draft ToR, which has been detailed in **Section 10.2.1**.

11. Consultation and Engagement Plan to Support the Environmental Assessment

As further detailed in **Section 3.3**, the Project is undertaking a coordinated provincial and federal assessment resulting in one body of Proponent documentation related to the assessment, known as the Environmental Assessment report for MECP and as the Impact Statement for the Agency. To support the coordinated assessment, MFFN has prepared one Consultation Plan (**Appendix B**) to meet the requirements of the EA / IA processes. The ToR has been prepared to focus on the aspects of the Consultation Plan (**Appendix B**) that pertain to the EA process.

As part of the EA, the Proponent is required to submit an EA report to MECP for review and an approval decision. This section provides an overview of the planned Proponent-led approach to consultation and engagement leading up to the submission of the EA, with details related to the key interested persons, planned approach, activities, milestones and scheduling provided in the Consultation Plan **(Appendix B).** Input received to-date from MFFN community members, neighbouring Indigenous communities, government agencies and interested persons has helped shape the planned approach to consultation and engagement proposed in the Consultation Plan (**Appendix B**).

The Consultation Plan (**Appendix B**) 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 and engagement is subject to revision based on input received during the ToR and future consultation and engagement during the preparation of the EA, including input from neighbouring Indigenous communities, government agencies and interested persons. As such, it is expected that the Consultation Plan (**Appendix B**) may evolve to include the development of tailored Consultation and Engagement Plans for select interested Indigenous communities.

While the Consultation Plan (**Appendix B**) is focused on the consultation and engagement efforts of MFFN during preparation of the EA, Ontario (MECP and ENDM) may also undertake consultation and engagement activities to satisfy its own obligations. Input received from government activities and provided to MFFN will also be considered in the EA.

11.1 Importance of Consultation

MFFN's primary consultation and engagement objectives during the EA are to: effectively communicate information about the proposed CAR, to consult and engage 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 design process.

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 and interested persons to support the environmental, social and economic sustainability of the proposed CAR. The Consultation Plan (**Appendix B**):

- Guides the collection of input / feedback from Indigenous communities and interested persons (i.e., any person or body that has an interest in the Project) to help inform the preparation of the EA;
- Outlines the methods that will be used to consult and engage during preparation of the EA;
- Identifies key milestones when consultation and engagement will occur, timing and targeted input;
- Provides an issue resolution process;
- Provides information about how correspondence and input will be recorded and tracked; and
- Provides details on assessing the effectiveness of consultation and engagement efforts.

More information regarding the guiding principles and key elements that will guide consultation during EA is provided in **Section 10** and **Appendix B**.

11.2 Duty to Consult

Aboriginal and Treaty Rights of Aboriginal peoples[15] in Canada are recognized and affirmed under section 35 of the *Constitution Act,* 1982. Aboriginal and Treaty Rights include, but are not limited to, hunting, fishing and gathering, as set out in treaties with the Crown or stemming from practices, customs or traditions which are integral to the distinctive culture of the Aboriginal community claiming the right. The Crown has a Duty to Consult and, where appropriate, accommodate Aboriginal communities when it has actual or constructive knowledge of an established or asserted Aboriginal or Treaty Right and contemplates conduct that may adversely affect that right. Procedural aspects of consultation may be delegated to a third party or proponent. However, the Duty to Consult rests with the Crown. As part of these rights, the Governments of Canada and Ontario have the Duty to Consult Aboriginal communities for this Project. Refer to **Section 10.2.2** for the list of neighbouring Indigenous communities to be consulted and engaged.

Ontario (MECP and ENDM) has delegated some procedural aspects of Ontario's Duty to Consult to MFFN (the Proponent) and a Marten Falls-Ontario MOU on Shared Consultation Responsibilities has been developed to set out how the responsibilities will be shared through the EA process. The Marten Falls-Ontario MOU on Shared Consultation Responsibilities (**Appendix D**) was signed on January 7, 2020 and defines the roles and responsibilities of both parties regarding the consultation of Indigenous communities whose Aboriginal or Treaty Rights may be adversely affected by the Project and interested persons.

The MFFN Project Team will work with Ontario (MECP and ENDM) to coordinate consultation activities and identify appropriate times for Ontario participation in Proponent-led activities. More information on the roles and responsibilities can be found in **Appendix D**.

11.3 Neighbouring Indigenous Communities, Government Agencies and Interested Persons

An initial list of Indigenous communities, government agencies and interested persons was developed based on discussions and Project development prior to the initiation of the provincial EA, and during preparation of the ToR.

The Project Contact List developed during the ToR will be expanded on throughout the EA and will be used to inform neighbouring Indigenous communities, government agencies and interested persons about the EA and planned consultation and engagement activities.

---

15. The term, Aboriginal, is used rather than Indigenous to reflect the definitions provided in the Constitution Act, 1982 and specifically s.35 (2), including Indian, Inuit and Mètis people in Canada.

11.3.1 Identification of Neighbouring Indigenous Communities

MFFN is currently consulting and engaging the neighbouring Indigenous communities identified to-date by the MECP and the Agency and will continue to do so throughout the EA, as per the level of interest expressed by each community. MFFN will also work with neighbouring Indigenous communities to collect Indigenous Knowledge to incorporate into the EA. **Section 10** provides the list of identified Indigenous communities for the Project.

Participation of neighbouring Indigenous communities during preparation of the EA is intended for MFFN to identify, consider and respond to potential concerns and issues of interested Indigenous communities, including MFFN community membership, and to share information with those communities and receive their input into the EA process. It is MFFN's intent throughout preparation of the EA to consult and engage neighbouring Indigenous communities and organizations at a level that considers interest and potential for effects related to the CAR. MFFN recognizes that the level of consultation and engagement desired by each community will vary and could evolve through ongoing discussions, and are accepting of these changes.

Underpinning each planned consultation and engagement activity related to all milestones is a commitment to work towards providing technical information that is easy to understand, encourages feedback and inputs and is provided in a timely manner that allows for sufficient review time. The MFFN Project Team commits to following-up with communities to confirm they received and understand the information provided, confirm that their feedback has been interpreted appropriately and to demonstrate how feedback has been considered and may inform the EA.

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

All MECP / Agency 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., identification of preferred alternatives). 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 **Table 11-1** below including those that could be undertaken with neighbouring Indigenous communities. Where possible, community-specific Consultation Plans will be developed and shared with Ontario (MECP and ENDM) as per the terms of the Marten Falls-Ontario MOU on Shared Consultation Responsibilities (**Appendix D**) and with the Agency if requested. Ontario (MECP and ENDM) will review and provide input to these community-specific Consultation Plans.

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 **Appendix B**.

11.4 Crown Government Agencies

11.4.1 Provincial and Federal Agencies

The MFFN Project Team has discussed the Project with provincial and federal government agencies during conference calls and meetings on various aspects of the EA, including timing for reviews of the ToR, data

availability, alternatives selection process, and consultation and engagement activities (particularly as they relate to Indigenous communities).

For EAs, the MECP provides an EA Government Review Team Master Distribution List (MECP 2019). This list was reviewed to identify the provincial and federal agencies who may have an interest in the Project and be consulted on the Project. Where there was any uncertainty, an agency was included in the Project Contact List unless the agency previously indicated they would like to be removed from Project communications. The Project-specific EA Government Review Team is provided in **Appendix B** for reference.

It is anticipated that the EA 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, it is expected that the MFFN Project Team will continue to receive guidance from an EA Coordination Team that includes a select group of agencies, including ENDM, MECP, MNRF, MTO and the Agency. 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 coordinated provincial and federal assessment process.

11.4.2 Municipalities

The City of Thunder Bay, the Municipality of Greenstone and Municipality of Sioux Lookout will be consulted and engaged during the EA.

11.5 Interested Persons

An initial list of interested persons was developed based on discussions and Project development prior to the initiation of the provincial EA and during preparation of the ToR. Interested persons are individuals and groups (e.g., associations, non-governmental organizations, industry and academia) 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 interested persons within the area meet frequently (monthly) as part of the Geraldton Area Natural Resource Advisory Committee; this group has been and will continue to be consulted and engaged throughout the EA.

11.6 Consultation Activities During the Environmental Assessment

Communication, consultation and engagement will be planned and executed to align with the Guiding Principles and consultation and engagement key elements (**Section 10**), to provide interested persons, including MFFN community membership, neighbouring Indigenous communities and their membership, government organizations and interested persons 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 during the ToR phase will continue into the EA. Any feedback received from these efforts 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 efforts to consult and engage Indigenous communities, government agencies and interested persons:

- NoC of provincial EA;
- Effects Assessment Methods;
- Identification of Preferred Alternatives;
- Review of Draft EA; and
- Review of Final EA.

A variety of communication, engagement and consultation tools will be used throughout the EA process to build positive, respectful relationships, share information with Indigenous communities and 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. The list of activities outlined in **Table 11-1** is a broad range of activities that will be considered; not all activities will necessarily be used throughout the EA. As part of the consultation and engagement, information will be provided for review, materials will be presented, and questions will be asked by the MFFN Project Team. As per the Marten Falls-Ontario MOU on Shared Consultation Responsibilities, Ontario (MECP and ENDM) will work to coordinate consultation and engagement activities and identify appropriate times for Ontario's participation in Proponent-led activities, and may review EA consultation and engagement-related materials.

Table 11-1: Consultation Activities

Consultation Activity/ Tool
Indigenous Communities
Chief and Council and / or Community Meetings (in-person, by phone or online), are expected with the most potentially interested / affected 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. Note that the undertaking of in-person community meetings will depend on the communities being open to receiving visitors as a result of the COVID-19 pandemic. Alternative means of consultation and engagement may be required as outlined further below in this table. Community discussions with / visits to other neighbouring Indigenous communities will also be encouraged and planned on request.
Community Member Discussions with members of Indigenous communities may be held to discuss the Project and obtain input, and will include applicable and relevant subgroups (e.g., women, youth, elders). These discussions will be coordinated with data gathering needs for preparation of the EA.
Topic-Specific Community Member Discussions, potentially as an additional follow-up consultation and engagement activity for Indigenous communities who 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.
Social Media/ Facebook will be leveraged to communicate more broadly with the MFFN community; MFFN's existing Facebook page will be used. Information related to Project notices and MFFN community meetings will be shared with the MFFN Consultation Coordinator for posting to the existing community site(s). Neighbouring Indigenous communities can also be provided with social media posts, if appropriate (e.g., to advertise a community meeting). Note: comments or private messages received through social media will not be tracked or used in consultation and engagement summary reports, unless requested by the individual. This tool is strictly for sharing information. Direction will be provided on how to formally submit comments to be tracked and considered.
Community Consultation Coordinators may be engaged to assist those communities with the highest potential to be affected by the Project and have a high level of Project interest (and therefore the highest level of consultation and engagement), coordinate in-community events, assist with Indigenous Knowledge Programs and inform the MFFN Project Team of consultation and engagement requirements and cultural protocols.
Web conferencing (e.g., Microsoft Teams, Zoom or WebEx) will be leveraged to host Project discussions as an alternative to face-to-face meetings with Indigenous communities, decided at the preference of each Indigenous community.

Table 11-1: Consultation Activities

Consultation Activity/ Tool
Local Radio Stations can be used to reach remote Indigenous communities and share upcoming consultation and engagement opportunities, interviews with the MFFN Project Team or general Project promotion.
All (including Indigenous Communities, Government Agencies and Interested Persons)
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.
A **Project Website** (www.martenfallsaccessroad.ca) will provide ongoing access to information, employment opportunities and planned consultation and 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. The website will be maintained and updated in a way that allows for users with low bandwidth and slow internet connection to access information. Electronic versions of any newsletters / Project updates will also be available through the blog function of the website.
Project Hotline / Email Address and 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.
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 Indigenous communities or interested persons, if requested.
Comment Forms / Questionnaires will be developed and used to gather feedback at PICs and community meetings.
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.
Public Information Centres will be held at key Project milestones in Thunder Bay on three occasions, with consideration of additional locations including the Municipality of Greenstone, Sioux Lookout and Longlac. These events will serve to discuss the Project and obtain input from interested persons. PICs will be advertised in local newspapers, and through the Project Contact List and website. Note that the undertaking of PICs will depend on the status of the COVID-19 pandemic and willingness of interested persons to come together for these types of events. An online PIC may be hosted as an alternative for one or more of these planned events.
Environmental Assessment Report (Draft and Final) may be reviewed by 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 all Indigenous communities identified in Section 10 and any others that express interest in receiving documents by mail, electronic copy and USB. Plain language and translated copies of the documents can be provided.

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

The Consultation Plan (**Appendix B**) is subject to revision based on input received on the ToR and future engagement during the preparation of the EA, including input from Indigenous communities, government agencies and interested persons.

A Note on In-person Meetings

On March 11, 2020, the World Health Organization officially classified the COVID-19 outbreak as a pandemic. As a result, physical / social distancing measures have been recommended across the world, and specifically, many of the Indigenous communities identified for the Project have had to close and / or limit access in and out of the community to limit the risk to their members. MFFN recognizes that this evolving situation may require changes to the proposed Consultation Plan (**Appendix B**) schedule and activities. MFFN will offer alternatives to face-to-face meetings, such as teleconferences (that do not require an internet connection) and online consultation and engagement opportunities, and work with the community's preference in how they would like to be consulted and engaged. Online consultation and engagement opportunities will be provided in consideration of an Indigenous community's knowledge of and access to technology and broadband limitations. Should they be requested and / or needed, the MFFN Project Team has the required skills and knowledge to leverage digital tools and platforms. The MFFN Project Team will work with neighbouring Indigenous communities to understand their capacity to participate in the Project, and the manner(s) in which they would like to be consulted and engaged.

The full details related to the planned EA consultation and engagement activities, milestones and scheduling is provided in **Appendix B**.

11.7 Milestones and Targeted Input

The targeted input of each consultation and engagement milestone is provided in **Table 11-2**. Consultation at each milestone has been designed in a stepwise manner to receive feedback on targeted input prior to advancing to the next stage of the EA process. The anticipated timing of each consultation and engagement milestone, and Project decision-making points are identified in **Appendix B**.

Table 11-2: Milestones and Targeted Input

Milestone	Targeted Input
NoC of Provincial EA	♦ Request information to determine and identify: – Level of interest in Project – Level of interest in meeting / discussions with Chiefs and Councils and / or Indigenous communities – How Indigenous communities would like to be kept informed during the EA – Level of interest in creating Indigenous community-specific Consultation and Engagement Plan(s) as they relate to the EA
Effects Assessment Methods	♦ Obtain feedback on: – Consultation and engagement approach – Planned baseline field studies – Existing conditions and results of baseline field studies completed – EA process – Local and regional study areas, Project phases, criteria and indicators, Project-environment interactions and net effects characteristics ♦ Request information to identify: – Indigenous community values and topics of interest – Potential effects and impact management measures to be considered – Effects of Project on Aboriginal or Treaty Rights and potential impact management measures to avoid, mitigate and off-set the effects(s) ♦ Seek confirmation whether input and feedback provided during the previous milestone was captured appropriately
Identification of Preferred Alternatives	♦ Obtain feedback on effects assessment: – Identified potential effects, including effects of Project on Aboriginal and Treaty Rights – Proposed impact management measures – Predicted net effects – Results of the comparative analysis of advantages and disadvantages

Table 11-2: Milestones and Targeted Input

Milestone	Targeted Input
	– Preferred alternative selected – Preliminary road design, to the extent available – Cumulative effects assessment methods ♦ Request information to identify: – Potential follow-up program measures including monitoring measures and adaptive management – Potential projects and activities that could act cumulatively with the Project – How Indigenous communities can participate in the Project – Potential cumulative effects to be considered ♦ Seek confirmation (i.e., through early release of community-specific RoC) whether input and feedback provided during the previous milestone was captured appropriately
Review of Draft EA	♦ Obtain feedback on: – Draft EA – Proposed impact management measure and follow-up program measures, including monitoring measures and adaptive management plan(s) – Cumulative effects assessment results – EA conclusions ♦ Seek confirmation whether input and feedback provided during the previous milestone was captured appropriately
Review of Final EA	♦ Review of Final EA

11.8 Issue Resolution

Consultation and engagement 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 RoC 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 (or online) 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.

If issues are raised outside of the mandate of the MFFN as the Proponent, the Marten Falls-Ontario MOU on Shared Consultation Responsibilities allows that these issues are referred to Ontario (MECP and ENDM) to address.

11.9 Record of Consultation

For successful completion of the EA, it is essential that the consultation and engagement process be documented to appropriately categorize, and address feedback received. To support the ToR, a RoC has been developed to track all incoming and outgoing discussions, correspondence and meetings since the NoC of the ToR. The RoC for the ToR is provided as **Appendix C**. The RoC includes notes on how questions and concerns may have been addressed in the ToR or will be considered in the EA. The RoC provides a detailed account of all communication exchanged with neighbouring Indigenous communities, government agencies and interested persons. A similar RoC will be prepared that documents engagement and consultation undertaken during the EA and will include the following:

- Summary of Key Consultation Activities Undertaken During Preparation of the EA;
- Summary of Feedback Received and Response / Action;
- Consultation Log; and
- Appendices of supporting consultation materials (e.g., presentations, minutes).

The EA RoC will describe engagement and consultation activities undertaken with neighbouring Indigenous communities, government agencies and interested persons.

Logistical correspondence (e.g., scheduling a meeting) will not be included in the appendices to the RoC but will be tracked in the appropriate consultation and engagement log. The only instance when logistical correspondence will be included as an appendix to the RoC will be when a meeting was not scheduled or was postponed; this information is included to show level of effort.

A copy of the RoC will be provided to agencies. Each neighbouring Indigenous community will be provided with a copy of their community-specific record for their consideration and review before it is included in the public record. This is an opportunity for neighbouring Indigenous communities to comment on the contents of their community-specific record and review how their feedback was considered or may have been incorporated into the EA, and where changes may have been made in specific documents. A final RoC including all incoming and outgoing Project correspondence will be provided as an appendix to the EA. A section summarizing consultation and engagement efforts will be included in the body of the EA.

12. Accommodating New Circumstances

The MECP Code of Practice (MECP 2020) 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 if approved, the MECP Code of Practice requires that flexibility be provided in the ToR to accommodate changes and / or unforeseen circumstances that may arise throughout the environmental planning process.

This ToR has been prepared using a conceptual level of 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 but does not represent the detailed design, location or scope of the Project. Therefore, the content of this ToR is considered preliminary and the detailed 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 investigations and studies, information available through the Indigenous Knowledge Program, feedback from consultation activities, and input received from government agencies during the preparation of the EA.

To accommodate new changes and unforeseen circumstances, flexibility has been incorporated into this ToR, where appropriate. 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, study area, alternative methods, effects assessment methods and evaluation criteria, need for modified or additional investigations and studies, and potential permits and approvals applicable to the Project. In this regard, it is understood that certain aspects of the ToR, including the number and location of alternatives for consideration in the EA, may be adjusted without the need to re-start the provincial EA process. Any significant changes from the ToR will be discussed with the MECP to identify whether additional requirements are necessary before proceeding with the change.

13. Other Permits and Approvals

To facilitate the construction of the CAR, including construction activities and temporary infrastructure, MFFN will need to acquire permits and approvals from provincial, federal government and other jurisdictional agencies. A preliminary list of permits and approvals anticipated to be applicable or potentially applicable to the Project are detailed in **Table 13-1**. This list is based on a conceptual level of 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 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. This may require a MOU and Road Use Management Strategy to be appended to the Permit. • 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 / Occupational Authority	• Land Use Permit / Occupational Authority under the *Public Lands Act, 1990*, for rights to Crown land for construction of the CAR, and for temporary infrastructure for construction (e.g., accesses, camps, laydown areas).
	Letter of Authority	• A Letter of Authority under the *Public Lands Act* may be necessary to allow use of restricted roads for Project activities.
	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.
	Purchase and Sale Agreement	• A Purchase and Sale Agreement under the *Public Lands Act* may be required for tree removal / harvesting.
	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 (e.g. gravel, rock, sand) on all Crown Land and also on private land in areas of the province designated (identified) in the regulations.
	CBLUP Approvals	• Terms of Reference 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.
	Permit / approval under the *Far North Act, 2010*	• A significant portion of the Project is located in the Far North of Ontario. Permits / approvals under the *Far North Act, 2010* may be required depending on the type of development and stage of completion of CBLUPs.
	Approval under *Lakes and Rivers Improvement Act, 1990*	• Approval for water crossings, bridges, culverts and causeways.
Ministry of the Environment, Conservation and Parks (MECP)	Environmental Compliance Approvals for wastewater, waste, air and noise	• Environmental Compliance Approvals under the *Environmental Protection Act, 1990*, and *Ontario Water Resources 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 enable the discharge and treatment of wastewater generated from some water taking activities; – to facilitate stormwater management; – to facilitate temporary on-site sewage and water treatment facilities, which may require approval under s.53 of the *Ontario Water Resources Act* if the rated capacity of the works is over 10,000 litres per day; – to allow for aggregate wash water systems with capacity greater than 10,000 litres per day; – to enable discharge associated with Category 1, 2 and 3 Permits To Take Water; and – to enable discharge associated with Environmental Activity and Sector Registration for construction site dewatering.
	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 Project requires taking greater than 50,000 litres of water in a day from a lake, stream, river or groundwater source (certain exemptions may apply depending on the source and purpose of the activity). • Permit To Take Water applications will follow the province's technical guidance document for hydrogeological studies. • 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. • Permit To Take Water requirements and the applicability of Environmental Activity and Sector Registration for aggregate extraction operations associated with the Project determined in consultation with the MECP.
	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.
	Approvals, authorizations 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.* • Work Permit for when the proposed road and associated structures (e.g., bridges, culverts) or clearing, is planned within a provincial park or conservation reserve. • Occupational Authority for when the proposed road and associated structures (e.g., bridges, culverts) or clearing, is planned within a provincial park or conservation reserve. • Research authorization from Ontario Parks to conduct research within provincial parks and conservation reserves. • Amendment to management direction for provincial parks and nature reserves under the *Provincial Parks and Conservation Reserves Act, 2006.*
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: a. within 45 m of the ROW limit of any provincial highway, b. within 180 m of the intersection of a side road and a "King's" highway; or c. within 395 m of a controlled access highway.

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

Approval Authority	Permit / Approval / Authorization	Applicability to the Project
Ministry of Energy, Northern Development and Mines (ENDM)	Approval	• Potential for the 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 IA's, where required, submitted to the MHSTCI for review under the EAA.
Ministry of Municipal Affairs and Housing	Letters of Conformity or Zoning Conformity Permits	• Potential for the 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*.
Federal		
Environment and Climate Change Canada	Permit	• Permit under *Species at Risk Act, 2002,* if the 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. • Permit under the *Migratory Birds Convention Act, 1994*, if the Project activities will destroy, harm, or harass any migratory birds or their nests.
Fisheries and Oceans Canada	Authorization	• Authorization under section 34 and section 35 of the *Fisheries Act, 1985* for any work, undertaking or activity that results in death of fish, or the harmful alteration, disruption 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*
Impact Assessment Agency of Canada (the Agency) (Previously the Canadian Environmental Assessment Agency)	Determination	• Determination if the Project will require a federal IA 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 Cooperation.
Indigenous Services 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.
Transport Canada	Approval	• Potential for the Project to require approvals under the *Canadian Navigable Waters Act, 1985,* for potential alterations to navigability to listed waterways.
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 National Railway	Clearance Letter	• Clearance Letter for crossing of Canadian National 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).

Note 1: Additional permits, authorizations or approvals may be identified as design progresses and further information becomes available on construction-related activities and temporary infrastructure required for construction and operations. The provincial and federal assessment approvals are outlined in ***Section 3*** *and therefore not included in the table.*

14. References

AECOM, 2019:
Draft Terms of Reference Marten Falls First Nation Community Access Road – Environmental Assessment.

AECOM, 2020:
Marten Falls First Nation Community Access Road Supporting Document – Draft Alternatives Development.

Agriculture and Agri-Food Canada, 1998:
The Canadian System of Soil Classification. Agriculture and Agri-Food Canada Publication 1646 (3rd ed.). Ottawa, Ontario: NRCAN Research Press. p. 187 pp. ISBN 0-660-17404-9.

Animbiigoo-Zaagi'igan Anishinaabek (AZA), 2019:
Animbiigoo-Zaagi'igan Anishinaabek. AZA History. http://www.aza.ca/article/aza-history-121.asp

Aroland First Nation, 2019:
About the Aroland First Nation. https://www.arolandfirstnation.ca/about-us.html

Banton, E., J. Johnson, H. Lee, G. Racey, P. Uhlig and M. Wester, 2009.
Ecosites of Ontario. http://www.cnfer.on.ca/SEP/PELC/PDFs/OntarioEcositesKey.pdf

Bird Studies Canada, 2003
A Background and Discussion Paper on a National Marshbird Monitoring Strategy for Canada. https://www.bsc-eoc.org/download/NABCIMMPstrategy.pdf

Calvert, A., C. Bishop, R. Elliot, E. Krebs, T. Kydd, C. Machtans and G. Robertson, 2013:
A synthesis of human-related avian mortality in Canada. Avian Conservation and Ecology, 8(2).

Canada Chrome Corporation, 2010:
2010 Geology and Terrain Unit Geotechnical Data Report. Prepared by Golder Associates Ltd.

Canadian Council of Ministers of the Environment (CCME), 2014:
Canadian Ambient Air Quality Standards. https://www.ccme.ca/en/current_priorities/air/caaqs.html

Canadian Standards Association (CSA), 2014:
CSA S6 Canadian Highway Bridge Design Code.

Chiefs of Ontario, n.d.:
Traditional Knowledge. Retrieved from http://www.chiefs-of-ontario.org/priorities/environment/traditional-knowledge/

Cliffs Natural Resources (Cliffs), 2013:
Amended Terms of Reference for Cliffs Chromite Project Individual Environmental Assessment. Prepared by Golder Associates Ltd.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC), 2017:
COSEWIC Assessment and Status Report on the Lake Sturgeon (*Acipenser fulvescens*) Western Hudson Bay Populations, Saskatchewan-Nelson River populations, Southern Hudson Bay-James Bay populations and Great Lakes-Upper St. Lawrence populations in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. http://www.registrelep-araregistry.gc.ca/default.asp?lang=en&n=24F7211B-1

Committee on the Status of Endangered Wildlife in Canada (COSEWIC), 2020:
Ottawa. Species at Risk Status Reports. Committed on the Status of Endangered Wildlife in Canada. Ottawa. http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?stype=doc&docID=18

Crins, W.J., P.A. Gray, P.W.C. Uhlig and M.C. Wester, 2009:
The Ecosystems of Ontario, Part I: Ecozones and Ecoregions. Ontario Ministry of Natural Resources, Peterborough Ontario, Inventory, Monitoring and Assessment, SIB TER IMA TR- 01, 71pp.

Eakins, R.J., 2018:
Ontario Freshwater Fishes Life History Database. Version 4.84. www.ontariofishes.ca

Environment Canada, 2014:
Avoiding harm to migratory birds. https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html

Far North Science Advisory Panel, 2010:
Science for a changing Far North. The Report of the Far North Science Advisory Panel. A report submitted to the Ontario Ministry of Natural Resources and available from the Ontario Ministry of Natural Resources and Forestry, Thunder Bay.

Farmer, A.M., 1993:
The effects of dust on vegetation – a review. Environmental Pollution. 76: 63-75.

Ferguson, S.H. and P.C. Elkie, 2004:
Seasonal movement patterns of woodland caribou (*Rangifer tarandus caribou*). Journal of Zoology 262(2):125-134. https://doi.org/10.1017/S0952836903004552

Five Nations, 2012:
Five Nations Energy Inc. Fort Albany and Kashechewan. https://www.fivenations.ca/index.php/community/fort-albany-and-kashechewan

Gamble, J., 2017:
What's at Stake in Ontario's Ring of Fire. Text. Canadian Geographic. August 23, 2017. https://www.canadiangeographic.ca/article/whats-stake-ontarios-ring-fire

Garvin, T. S. Nelson, E. Ellehoj and B. Redmond, 2001:
A Guide to Conducting A Traditional Knowledge and Land Use Study. Canadian Forest Service Northern Forestry Centre. https://cfs.nrcan.gc.ca/pubwarehouse/pdfs/18499.pdf

Ginoogaming First Nation, 2019:
GFN TLE Land Selection Process: Update #2. http://www.ginoogamingfn.ca/wp-content/uploads/2019/07/GFN-TLE-Newsletter2-July-2019-pp-full.pdf

Golder Associates Ltd., 2018a:
Environmental Study Report for the Phase 1 New Transmission Line to Pickle Lake Project. Environmental Assessment. https://www.wataypower.ca/project/phase-1

Golder Associates Ltd., 2018b:
Environmental Study Report for the Phase 2 Connecting 17 Remote First Nation Communities Project. Environmental Assessment. https://www.wataypower.ca/project/phase-2

Government of Canada, 2008:
Treaty 9 Text Agreement. November 3, 2008. https://www.aadnc-aandc.gc.ca/eng/1100100028863/1100100028864

Government of Canada, 2019:
Historical Climate Data. http://climate.weather.gc.ca/historical_data/search_historic_data_stations_e.html?searchType=stnName&timeframe=1&txtStationName=geraldton&searchMethod=contains&optLimit=yearRange&StartYear=1840&EndYear=2019&Year=2019&Month=6&Day=5&selRowPerPage=25

Government of Canada, 2020:
Reporting Centre on Specific Claims. https://services.aadnc-aandc.gc.ca/SCBRI_E/Main/ReportingCentre/External/externalreporting.aspx

Government of Ontario, 2012:
Far North of Ontario. Information about the Far North of Ontario and how to view the boundary in detail. https://www.ontario.ca/rural-and-north/far-north-ontario

Government of Ontario, 2013a:
Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning (NPC-300). https://www.ontario.ca/page/environmental-noise-guideline-stationary-and-transportation-sources-approval-and-planning

Government of Ontario, 2013b:
Forest Management Unit | Ontario.Ca. 2013. https://www.ontario.ca/data/forest-management-unit

Government of Ontario, 2014a:
Law Document English View. Ontario.Ca. July 24, 2014. https://www.ontario.ca/laws/view

Government of Ontario, 2014b:
The Far North Land Use Planning Initiative. Ontario.Ca. May 30, 2014. https://www.ontario.ca/page/far-north-land use-planning-initiative

Government of Ontario, 2014c:
The Provincial Policy Statement. https://www.ontario.ca/document/provincial-policy-statement-2014

Government of Ontario, 2017:
Ontario and First Nations Moving Ahead with Road to Ring of Fire: Province Supporting First Nations Proposal to Build All Season Access Road. August 21, 2017. https://news.ontario.ca/opo/en/2017/08/lontario-et-les-premieres-nations-progressent-dans-le-projet-de-construction-dune-route-pour-le-cerc.html

Government of Ontario, 2019a:
About Land Claims | Ontario.Ca. https://www.ontario.ca/page/about-land-claims

Government of Ontario, 2019b:
Current Land Claims | Ontario.Ca. https://www.ontario.ca/page/current-land-claims

Government of Ontario, 2019c:
Draft Guidelines for ministries on consultation with Aboriginal peoples related to Aboriginal rights and treaty rights. https://www.ontario.ca/page/draft-guidelines-ministries-consultation-aboriginal-peoples-related-aboriginal-rights-and-treaty

Government of Ontario, 2019d:
Ontario Regulation 419/05: Air Pollution – Local Air Quality, 2019. https://www.ontario.ca/laws/regulation/050419

Government of Ontario, 2019e:
Ontario Bringing High-Speed Internet to Remote First Nation Communities. https://news.ontario.ca/opo/en/2019/10/ontario-bringing-high-speed-internet-to-remote-first-nation-communities.html

Hegmann, G., C. Cocklin, R. Creasey, S. Dupuis, A. Kennedy, L. Kingsley, W. Ross, H. Spaling and D. Stalke,. 1999:
Cumulative Effects Assessment Practitioners Guide. Prepared by AXYS Environmental Consulting Ltd. and the CEA Working Group for the Canadian Environmental Assessment Agency, Hull, Quebec.

Impact Assessment Agency of Canada (IAAC), 2020a:
Impact Assessment Agency of Canada – Ontario Ministry of the Environment, Conservation and Parks Cooperation Plan for the Marten Falls Community Access Road Project Impact Assessment. https://www.iaac-aeic.gc.ca/050/documents/p80184/133931E.pdf

Impact Assessment Agency of Canada (IAAC), 2020b:
Regional Assessment of the Ring of Fire. https://iaac-aeic.gc.ca/050/evaluations/proj/80468

Indigenous Services Canada (ISC), 2019:
First Nation Profiles. http://fnp-ppn.aandc-aadnc.gc.ca/fnp/Main/Search/SearchFN.aspx?lang=eng

Indigenous Services Canada (ISC), 2020:
First Nation Profiles. https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/SearchFN.aspx?lang=eng

Julig, P.J., 1982:
Human Use of the Albany River from Preceramic Times to the Late Eighteenth Century. Unpublished M.A. thesis, Department of Geography, York University, North York, Ontario.

KBM Resources Group, n.d.:
High Quality Winter Road to the Community of Marten Falls.

KBM Resources Group, 2014:
Marten Falls First Nation to Muketei Airstrip winter road project description.

Manuel, T., 2019:
Cultural Teachings: Welcome to Territory & Land Acknowledgments. http://reconciliationcanada.ca/cultural-teachings-welcome-to-territory-land-acknowledgments/\

Marten Falls First Nation (MFFN), 2014:
Marten Falls Community Profile. http://community.matawa.on.ca/wp-content/uploads/2014/02/CULPOR_Marten-Falls_Profile.pdf

Marten Falls First Nation (MFFN), 2017:
Preferred Route Selection and Preliminary Environmental Work Project Proposal.

Marten Falls First Nation and Ministry of Natural Resources (MFFN and MNR), 2013:
Marten Falls First Nation Community Based Land Use Plan Terms of Reference.

Matawa First Nations Management Inc., 2019:
Matawa » Economic Development. http://www.matawa.on.ca/department/economic-development/

Matawa First Nations Management Inc., n.d.:
Aroland First Nation. http://community.matawa.on.ca/?matawa-communities=aroland

McCarty, J., 1996:
Eastern Wood-Pewee (*Contopus vierens*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of north American Online http://bna.birds.cornell.edu/bna/species/

Métis Nation of Ontario (MNO), 2019:
The Métis Nation of Ontario. http://www.metisnation.org/about-the-mno/the-métis-nation-of-ontario/

Ministry of Finance, 2019:
A Plan to Built Ontario Together. 2019 Ontario Economic Outlook and Fiscal Review. https://budget.ontario.ca/2019/fallstatement/pdf/2019-fallstatement.pdf

Ministry of Infrastructure (MOI), 2017:
Building Better Lives: Ontario's Long-term Infrastructure Plan 2017. https://www.ontario.ca/document/building-better-lives-ontarios-long-term-infrastructure-plan-2017

Ministry of Infrastructure and Ministry of Northern Development, Mines and Forestry, 2011:
Growth Plan for Northern Ontario 2011. https://www.placestogrow.ca/images/pdfs/GPNO-final.pdf

Ministry of Natural Resources and Forestry (MNR), 1990:
Environmental guidelines for access roads and water crossings. 1990. https://www.ontario.ca/page/environmental-guidelines-access-roads-and-water-crossings

Ministry of Natural Resources and Forestry (MNR), 2005:
Crown Land Use Policy Atlas. Policy Report. G2697: Geraldton Area. Last Updated: December 14, 2005. http://www.gisapplication.lrc.gov.on.ca/services/CLUPA/xmlReader.aspx?xsl=web-primary.xsl&type=primary&POLICY_IDENT=G2697

Ministry of Natural Resources and Forestry (MNR), 2006:
Crown Land Use Policy Atlas. Policy Report. P2657: Albany River Provincial Park. Last Updated: January 31, 2006.

Ministry of Natural Resources (MNR), 2014:
Ontario Wetland Evaluation System, Northern Manual. Version 1.3. https://files.ontario.ca/environment-and-energy/parks-and-protected-areas/ontario-wetland-evaluation-system-northern-manual-2014.pdf

Ministry of Natural Resources and Forestry (MNRF) / Fisheries and Oceans Canada (DFO) 2016:
Revised MNRF / DFO Protocol for the Review of Water Crossings Proposed Through the Forest Management Planning Process. Last Updated: January 08, 2016.

Ministry of Natural Resources and Forestry (MNRF), 2019:
Natural Heritage Information Centre Make-a-Map: Natural Heritage Areas. https://www.ontario.ca/page/make-natural-heritage-area-map

Ministry of Natural Resources and Forestry (MNRF), 2019:
April Mitchell, Terrestrial Ecosystem Science Specialist / Northwest Region. 2019. Pers. comm. E-mail to James Kamstra (AECOM) May 3, 2019.

Ministry of Northern Development and Mines (MNDM), 2017a:
Quaternary Geology. https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/quaternary-geology

Ministry of Northern Development and Mines (MNDM), 2017b:
Bedrock Geology. https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/bedrock-geology

Ministry of the Environment, and Climate Change (MOECC), 2013:
Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning (NPC-300). https://www.ontario.ca/page/environmental-noise-guideline-stationary-and-transportation-sources-approval-and-planning#section-11

Ministry of the Environment, Conservation and Parks (MECP), 2014a:
Code of Practice for Consultation in Ontario's Environmental Assessment Process.
https://www.ontario.ca/page/consultation-ontarios-environmental-assessment-process#section-5

Ministry of the Environment, and Climate Change (MOECC), 2017:
Ontario's Guide for Considering Climate Change in the Environmental Assessment Process.
https://www.ontario.ca/page/considering-climate-change-environmental-assessment-process

Ministry of the Environment, Conservation and Parks (MECP), 2014a:
Code of Practice for Consultation in Ontario's Environmental Assessment Process.
https://www.ontario.ca/page/consultation-ontarios-environmental-assessment-process#section-5

Ministry of the Environment, Conservation and Parks (MECP), 2014b:
Code of Practice on Preparing and Reviewing Environmental Assessments in Ontario.
https://www.ontario.ca/document/preparing-and-reviewing-environmental-assessments-ontario-0

Ministry of the Environment, Conservation and Parks (MECP), 2018:
Ontario's Ambient Air Quality Criteria. https://www.ontario.ca/page/ontarios-ambient-air-quality-criteria-sorted-contaminant-name

Ministry of the Environment, Conservation and Parks (MECP), 2019:
Species at Risk in Ontario. https://www.ontario.ca/page/species-risk-ontario

Ministry of the Environment, Conservation and Parks (MECP), 2020:
Code of Practice Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario.
https://www.ontario.ca/page/preparing-and-reviewing-terms-reference-environmental-assessments-ontario

Ministry of Tourism and Culture (MTCS), 2005:
Heritage Resources in the Land Use Planning Process. Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement.

Ministry of Tourism and Culture (MTCS), 2011:
Standards and Guidelines for Consultant Archaeologists. Ministry of Tourism Culture and Sport's (MTCS) Archaeological Sites Database (OASD)

Municipality of Greenstone, 2015:
Greenstone Community Profile, 68. http://www.greenstone.ca/content/community-profile

Natural Resources Canada, 2019:
The Atlas of Canada – Toporama. Online mapping application. http://atlas.gc.ca/toporama/en/index.html

Neegan Burnside Ltd. 2009:
Matawa First Nations Tribal Council Winter Road Realignment Study.

Nishnawbe Aski Nation, 2007:
Handbook on Consultation in Natural Resource Development.
http://www.nan.on.ca/upload/documents/pub---nan-handbook-on-consultation---3rd.pdf

Ontario Federation of Snowmobile Clubs, 2019:
Interactive trail guide 2018-2019 season. https://trails.evouala.com/ofsc/#

Ontario Geological Survey, 1984:
Aggregate Resources Inventory of the Hearst Area, Cochrane District; Ontario, Geological Survey, Aggregate Resources Inventory Paper 71, 51 p., 6 tables, 6 maps, scale 1:50 000.

Ontario Ministry of Tourism, Culture and Sport (MTCS), 2017:
Regional Tourism Profiles. http://www.mtc.gov.on.ca/en/research/rtp/rtp.shtml

Ontario Ministry of Transportation (MTO). 2012:
Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects. http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTE0ODUx&statusId=MTcyMTg4

Ontario Ministry of Transportation (MTO), 2016:
Provincial Highways Management Division. Highway Standards Branch. Structural Manual.

Ontario Ministry of Transportation (MTO). 2017:
Highway Standards Branch. Design and Contracts Standards Office. Roadside Design Manual.

Red Sky Métis Independent Nation (RSMIN), 2019:
Who is Red Sky Métis Independent Nation. https://rsmin.ca/about-us

Riley, J.L., 2011:
Wetlands of the Ontario Hudson Bay Lowland: a regional overview. Nature Conservancy of Canada, Toronto, Ont. Spellerberg, I.F., 1998:
Ecological effects of roads and traffic: a literature review. Global Ecology and Biogeography Letters. 7: 317-333.

Stanfield, L. (ed.), 2007:
Ontario Stream Assessment Protocol. http://www.ontla.on.ca/library/repository/mon/20000/264462.pdf

Statistics Canada, 2017a:
Census Profile, 2016 Census - Greenstone, Municipality [Census Subdivision], Ontario and Thunder Bay, District [Census Division], Ontario. https://www12.statcan.gc.ca/census-recensement/2016/dppd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3558075&Geo2=CD&Code2=3558&Data=Count&SearchText=greenstone&SearchType=Begins&SearchPR=01&B1=All&TABID=1

Statistics Canada, 2017b:
Census Profile, 2016 Census - Marten Falls 65, Indian Reserve [Census Subdivision], Ontario and Kenora, District [Census Division], Ontario. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3560052&Geo2=CD&Code2=3560&Data=Count&SearchText=marten%20falls&SearchType=Begins&SearchPR=01&B1=All&TABID=1

Statistics Canada, 2017c:
Census Profile, 2016 Census - Aroland 83, Indian Reserve [Census Subdivision], Ontario and Thunder Bay, District [Census Division], Ontario. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3558076&Geo2=CD&Code2=3558&Data=Count&SearchText=aroland&SearchType=Begins&SearchPR=01&B1=All&TABID=1

Stuart-Smith, A.K., C.J.A. Bradshaw, S. Boutin, D.M. Hebert and A.B. Rippin, 1997:
Woodland Caribou Relative to Landscape Patterns in Northeastern Alberta. Journal of Wildlife Management 61:622-633.

Sykes, J.F., S.D. Normani, M.R. Jensen and E.A. Sudicky, 2009:
An assessment of the groundwater resources of Northern Ontario: Areas draining into Hudson Regional-scale groundwater flow in a Canadian Shield setting. Canadian Geotechnical Journal, vol. 46, p. 813-827.

Transportation Association of Canada, 2017a:
Transportation Association of Canada Geometric Design Guide for Canadian - Geometric Design Supplement.

Transportation Association of Canada, 2017b:
Transportation Association of Canada Geometric Design Guide for Canadian Roads.

W.L. Lees & Associates Ltd. and Marten Falls Logistics-LP, 2011:
Marten Falls First Nation – Winter road realignment / all weather road project, feasibility analysis and business plan report.

Watkins, L., 2011:
The Forest Resources of Ontario 2011. Ontario Ministry of Natural Resources, Sault Ste. Marie Ontario, Forest Evaluation and Standards Section, Forests Branch 307 pp.

aecom.com