

**Pickle Lake Transmission Line
Project
Environmental Assessment
Terms of Reference**

Prepared for:

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File No. 160961001
February 17, 2016

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Abbreviations

Abbreviations / Unit	Definition
AANDC	Aboriginal Affairs and Northern Development Canada
Agency	Canadian Environmental Assessment Agency
°C	degrees Celsius
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
DFO	Fisheries and Oceans Canada
EA	environmental assessment
EAA	Ontario <i>Environmental Assessment Act</i>
END	endangered
ESA, 2007	<i>Endangered Species Act</i>
GRT	Government Review Team
ha	hectare
HONI	Hydro One Networks Inc.
km	kilometre
km ²	square kilometre
kV	Kilovolt
m	metres
MNDM	Ministry of Northern Development and Mines
MNR	Ministry of Natural Resources
MNRF	Ministry of Natural Resources and Forestry (formerly the Ministry of Natural Resources)
MOE	Ministry of the Environment
MOECC	Ministry of the Environment and Climate Change (formerly the Ministry of the Environment)

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Abbreviations / Unit	Definition
MTO	Ministry of Transportation
MTC	Ministry of Tourism and Culture (formerly the Ministry of Tourism, Culture and Sport)
MTCS	Ministry of Tourism, Culture and Sport
NHIC	Natural Heritage Information Centre
PIC	Public Information Centre
PWQO	Provincial Water Quality Objectives
Sagatay	Sagatay Transmission L.P.
SAR	Species at Risk
SARA	<i>Species at Risk Act</i>
SARO	Species at Risk in Ontario
SC	special concern
Stantec	Stantec Consulting Ltd.
THR	threatened
ToR	Terms of Reference

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Identification of the Proponent
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1.0 IDENTIFICATION OF THE PROPONENT

Sagatay Transmission L.P. (Sagatay, the Proponent) proposes the establishment, construction, operation, and retirement of a new 230 kV electrical transmission line, and any ancillary activities, collectively known as the Pickle Lake Transmission Project (the Undertaking). Sagatay is a partnership between Mishkeegogamang First Nation, the Ojibway Nation of Saugeen, Morgan Geare Inc., and Algonquin Power and Utilities Corp. Further details on the corporate structure of Sagatay are provided in **Figure 1** in **Appendix A**.

The new transmission line to Pickle Lake was identified as a priority transmission project in the Government of Ontario's *Long Term Energy Plan* in 2010 and 2013. The purpose of the line (and the opportunity) is to facilitate remote community connection and to broadly serve industry needs (e.g. mining projects). The existing electricity supply to Pickle Lake is at capacity which limits the ability to connect remote communities to the Provincial electricity grid and limits potential future economic development. In addition to being identified as a priority project by the Province, the North of Dryden Integrated Regional Resource Plan (2015) identifies a number of alternatives to serve the electricity needs of Pickle Lake and beyond. These alternatives include new generation (gas and renewables), conservation demand management, construction of a 115 kV transmission line and connection from alternate transmission lines (i.e.: D26A or 29M1). The North of Dryden Plan concluded that the best alternative is a new transmission line from Ignace/Dryden to Pickle Lake, operating at 230 kV standards. Existing industry and communities are heavily dependent on diesel-fueled power to provide the needed amounts of electricity. Furthermore, future economic development opportunities, such as mining development associated with the "Ring of Fire" mineral deposits, would benefit from additional transmission capacity into the region. The Undertaking will be a single circuit 230 kV and will run from the southern portion of the Study Area near Ignace, Dinorwic or Dryden, to Pickle Lake, a distance of approximately 300 km.

It will be the responsibility of Sagatay to prepare the environmental assessment in accordance with an approved Terms of Reference.

The proponent contact information is as follows:

Name of Proponent:	Sagatay Transmission L.P.
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Indication of How the Environmental Assessment will be Prepared
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2.0 INDICATION OF HOW THE ENVIRONMENTAL ASSESSMENT WILL BE PREPARED

A description of the provincial environmental assessment (EA) process that will be followed for the Undertaking is provided below.

2.1 PROVINCIAL ENVIRONMENTAL ASSESSMENT

The purpose of the Terms of Reference (ToR) is to provide a framework for the preparation of the EA. This ToR has been prepared in accordance with the *Environmental Assessment Act* (EAA) and with the *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (MOE, 2014b). Sagatay is seeking MOECC's approval for this framework that will be used for decision making processes during the preparation of the EA.

According to subsection 6(2) of the EAA, the ToR must either:

- (a) Indicate that the EA will be prepared in accordance with the general requirements in subsection 6.1 (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,
- (c) Set out in detail the requirements for the preparation of the EA.

For the Undertaking, an individual EA will be prepared to satisfy the EAA requirements for all components of the Project that are subject to the EAA. Sagatay will be preparing a focused EA as per Sections 6(2)(c) and 6.1 (3) of the EAA. The EA will include the following content:

- (a) a description of the purpose of the Undertaking;
- (b) a description of and a statement of the rationale for,
 - (i) the Undertaking, and,
 - (ii) the alternative methods of carrying out the Undertaking.
- (c) a description of,
 - (i) the environment to be affected or that might reasonably be expected to be affected, directly or indirectly,
 - (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and
 - (iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might

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- reasonably be expected upon the environment, by the Undertaking and the alternative methods of carrying out the Undertaking;
- (d) an evaluation of the advantages and disadvantages to the environment of the Undertaking, the alternative methods of carrying out the Undertaking; and
 - (e) a description of any consultation about the Undertaking by the proponent and the results of the consultation.

In addition to the above, the EA will include a detailed description and assessment of the preferred Undertaking for which approval under the Act will be sought.

Under the focused EA scenario, Sagatay will only be evaluating the “alternative methods” associated with carrying out the Undertaking. Subsection 6.1 (2) (b) (iii) and (d) will not be considered in the EA as development of the transmission line is the only “alternative to” that will be evaluated. Further details regarding the focused assessment approach and evaluation of alternatives that will be undertaken in the EA are described in Section 5.0.

The ToR describes how Sagatay intends to undertake the EA; however it provides flexibility to address new circumstances that may be identified as the EA study progresses.

Sagatay will complete the EA in accordance with the *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* and follow the considerations for good environmental planning including:

- Environmental Assessment Principles
 - Consult with Potentially Affected and other Interested Person
 - Consider a Reasonable Range of Alternatives
 - Consider All Aspects of the Environment
 - Systematically Evaluate Net Environmental Effects
 - Provide Clear, Complete Documentation
- Project Management Principles
 - Timeliness
 - Clarity and Consistency
 - Openness and Transparency
 - Coordination of Approvals
 - Best Available Information
 - Appropriate Level of Detail
 - Minimize Potential Harm and Enhance Benefits to the Environment

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An EA carried out in accordance with this ToR will be consistent with the purpose of the EAA (Section 2), leading to *the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.*

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Purpose of the Study or Undertaking
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3.0 PURPOSE OF THE STUDY OR UNDERTAKING

Sagatay has identified the business opportunity for the establishment, construction, operation, and retirement of the transmission line to Pickle Lake as a result of demonstrated need and policy support by the Province of Ontario. In Ontario's *Long-Term Energy Plan (2010 and 2013)*, the Government of Ontario identified the line to Pickle Lake as a transmission priority in the Province.

As described in the *Long-Term Energy Plan (2010 and 2013)*, the purpose of the Undertaking is to increase the capacity to support new demand, including from mining, grid connection of remote communities and potentially the Ring of Fire. The Undertaking will provide increased capacity and reliability of electricity transmission to Pickle Lake and the surrounding area.

The existing electricity supply to Pickle Lake is at capacity which limits the ability to connect remote communities to the Provincial electricity grid and limits potential future economic development. In addition to being identified as a priority project by the Province, the North of Dryden Integrated Regional Resource Plan (2015) identifies a number of alternatives to serve the electricity needs of Pickle Lake and beyond. These alternatives include new generation (gas and renewables), conservation demand management, construction of a 115 kV transmission line and connection from alternate transmission lines (i.e.: D26A or 29M1). The North of Dryden Plan concluded that the best alternative is a new transmission line originating at or near Dryden or Ignace and terminating in Pickle Lake, operating at 230 kV standards.

The specific purpose statement will be refined through the EA planning process and a final purpose statement will be presented in the EA.

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Description of and Rationale for the Undertaking
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4.0 DESCRIPTION OF AND RATIONALE FOR THE UNDERTAKING

A preliminary description of the key components of the Undertaking and the rationale supporting the Undertaking is provided below. The final description of the Undertaking and rationale for the Undertaking will be further developed and provided in the EA.

4.1 DESCRIPTION OF THE UNDERTAKING

The Undertaking involves the construction, operation and retirement of a new 230 kV electrical transmission line and related infrastructure to provide power to Pickle Lake from a point on the Hydro One Networks Inc. (HONI) 230 kV grid originating in the southern portion of the Study Area near Ignace, Dinorwic or Dryden, Ontario. Related infrastructure will include a connection facility at the southern terminus of the line and a transformer station at Pickle Lake. The key permanent components of the Undertaking are expected to include, but not be limited to:

- a Junction facility to connect the Undertaking to HONI's existing grid near Ignace, Ontario;
- a switching station at the Ignace end of the Undertaking;
- conductors and insulators;
- poles or towers to support the line;
- pole or tower foundations;
- supporting/guy wires, where needed;
- access roads/trails including water crossings to support construction and maintenance of the line;
- a transformer station at Pickle Lake; and
- a fenced switching station to connect the Undertaking to HONI's existing grid in Pickle Lake, Ontario.

From the connection facility originating in the Ignace, Dinorwic or Dryden area, an approximate 300 km long overhead 230 kV transmission line will be constructed to connect to a new transformer station and the electricity grid at Pickle Lake.

The transmission line will be located within an approximately 50 metre wide easement. The transmission line will be constructed overhead and is anticipated to use bare aluminum conductor, steel reinforced (ACSR) conductors. They are vertically isolated from ground via 230 kV insulators and tower or pole structures.

This preliminary description of the Undertaking is conceptual in nature and should not be considered final. The specific components of the Undertaking and the associated design

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concept will be further evaluated as part of the EA planning process and detailed engineering design. The EA will contain a final, detailed description of the Undertaking.

4.1.1 Study Area

In order to undertake the effects assessment during the EA, a preliminary Study Area has been identified and includes the area where potential effects may occur as a result of the Undertaking.

The preliminary Study Area is shown on **Figure 2 (Appendix A)**. The preliminary Study area boundary was selected with the consideration of good planning principles allowing the assessment of a reasonable range of potential alternative transmission line routes through the incorporation of several existing developed linear infrastructure corridors (i.e. Hwy 72, Hwy 516, Hwy 599, existing transmission and rail corridors and the direction regarding alternative corridors provided by MOECC, but not limited to, in the MOECC letters of December 11, 2012 and February 12, 2016). As stated above, the Study Area will be further assessed and evaluated during the preparation of the EA, for example based on ongoing studies and consultation. As a result, the final Study Area boundary for the Undertaking will be further refined when more detailed information is known as the Undertaking progresses, and will be presented in the EA.

4.1.2 Key Undertaking Phases

The key phases of the Undertaking including approximate duration are:

- construction (site preparation, physical construction/equipment installation, commissioning) – approximately 2 to 3 years;
- operation (maintenance and upgrade activities, as required) – long term; and
- retirement (decommissioning) – timeline not currently envisioned.

4.1.2.1 Construction

Construction would begin after associated permitting processes have been completed. The timeframe to complete the required site preparation and installation of infrastructure is expected to be approximately two to three years.

Primary construction activities are generally expected to consist of:

- site preparation;
- physical construction and equipment installation; and
- commissioning.

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4.1.2.2 Operation

Project operation is anticipated to continue indefinitely. This will include routine activities such as:

- vegetation management along easement;
- maintenance of access roads;
- maintenance of transmission line and associated structure; and
- maintenance of connection facility and transformer station.

4.1.2.3 Retirement (Decommissioning)

The operation phase of large transmission projects are very long term. A retirement (decommissioning) timeline of the Undertaking is not currently envisioned. However concepts will be introduced in the EA in order to fully evaluate the potential effects and necessary mitigation measures for the Undertaking. The EA will provide an overview of what is expected to be included as part of decommissioning including the components of the Undertaking that will require retirement.

4.1.2.4 General Approach and Environmental Protection Measures

A variety of environmental protection and management measures will be developed in the EA to guide the planning, design, construction, operation, and retirement (decommissioning) of the Undertaking. These are expected to include:

- where possible, siting facilities to avoid sensitive natural areas such as wetlands, watercourses and important habitat types, and where unavoidable to minimize the size and number of features that may be affected;
- considering other environmental features (i.e. socio-economic) when siting facilities and implementing mitigation measures, as appropriate;
- minimizing the "footprint" of Undertaking facilities and activities to consequently minimize the amount of disturbed land, wetlands and water resources;
- employing good planning, design and management practices, including routing of the transmission line along or near to existing linear facilities, where possible;
- regulated standards for air and water emissions, for storage or disposal of solid wastes, and for handling and disposal of hazardous materials;
- regulated and/or industry design and management standards to satisfactorily deal with environmental risks such as seismicity, unusual weather events, flooding, and erosion;
- preparing an Environmental Protection Plan for construction activities that is included in, and enforced through, construction contracts;

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- a robust public, stakeholder and Aboriginal engagement program. Sagatay has already had ongoing stakeholder and Aboriginal consultation activities since initiating planning for the Undertaking in 2010. These activities will be ongoing throughout the planning and permitting phase and implemented throughout construction and operations in order to ensure that, wherever possible:
 - concerns about the Undertaking are accommodated in its design, construction, operation and closure (decommissioning);
 - economic impacts, both positive and negative, of the project in the area are identified and considered; and,
 - employment, business and other benefits are realized locally.

As stated previously, the location of the Undertaking components (alternative methods) is conceptual and will be finalized in the EA based on engineering feasibility studies and environmental considerations. To the extent possible, facilities will be sited to avoid and/or minimize interactions with environmental features (both natural and non-natural); where avoidance is not possible, mitigation measures will be developed in consultation with the applicable regulatory authorities.

4.2 RATIONALE FOR THE UNDERTAKING

Sagatay has identified the business opportunity for the establishment, construction, operation, and retirement of the line to Pickle Lake as a result of demonstrated need and policy support by the Province of Ontario. In Ontario's Long Term Energy Plan (2010 and 2013), the Government of Ontario identified the transmission line to Pickle Lake as a transmission priority in the Province. A new line to Pickle Lake would provide additional capacity and reliability of supply to the Town of Pickle Lake, three First Nation communities (Slate Falls First Nation, Cat Lake First Nation, and Mishkeegogamang First Nation), and the surrounding area (North of Dryden Plan, p31). Currently, all electricity transmitted through the grid to these communities is through the existing 115 kV E1C line.

As a result, Sagatay is pursuing the Undertaking to realize both near term and medium term benefits of the Undertaking, as per the North of Dryden Plan recommendations (p7). These include:

- The Undertaking will provide improved service to the Town of Pickle Lake and the three First Nation communities (Slate Falls First Nation, Cat Lake First Nation, and Mishkeegogamang First Nation) who are currently serviced by a 115 kV line (the E1C line) operated by HONI. The Undertaking will provide additional reliable power to the three First Nations and the Town of Pickle Lake.

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- The additional power delivered to Pickle Lake will enable Goldcorp to make full use of the existing, but underutilized, transmission line (the M1M line) that connects its Musselwhite Mine to the E1C line at Pickle Lake, and thus enable the company to reduce its reliance on diesel-generated electricity. This will have significant positive operational and financial benefits to a key employer in the region as well as the environmental benefits of reduced diesel-fueled electricity generation.
- The Undertaking would also enable future transmission projects to connect First Nation communities north and east of Pickle Lake to the provincial electricity grid. These communities are currently serviced by diesel-fueled generation and could realize environmental, social and economic benefits from being connected to the provincial grid.
- The potential to supply grid delivered electricity to support future development of the 'Ring of Fire'.

Additional information regarding the rationale for the Undertaking is provided as part of supporting documentation to the ToR and may evolve during the preparation of the EA.

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Description of and Rationale for Alternatives
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5.0 DESCRIPTION OF AND RATIONALE FOR ALTERNATIVES

The EAA makes reference to two types of alternatives: “alternatives to” and “alternative methods” to a given proposed Undertaking. The following sections describe how these two aspects will be addressed as part of the EA.

5.1 “ALTERNATIVES TO” THE UNDERTAKING

“Alternatives to” the Undertaking are functionally different ways of approaching and dealing with a problem or opportunity (what types of activities will address the problem or opportunity).

As described previously in the ToR, “alternatives to” a proposed undertaking, as defined in the EAA Subsection 6.1 (2) (b) (iii) and (d), will not be considered, as the transmission line to Pickle Lake has been identified as a transmission priority in the province’s Long-Term Energy Plan (MOE, 2013). Other options to serve industry needs and enable remote communities to transition off diesel generation, such as renewable generation and storage, have been subject to significant analysis and discussion within the government and its agencies prior to release of the Long-Term Energy Plan.

The transmission solution was identified as the preferred alternative in the Long-Term Energy Plan. As a result, the EA will be examining this approach against the “do nothing” alternative, which will allow for a comparative evaluation.

5.2 “ALTERNATIVE METHODS” OF CARRYING OUT THE UNDERTAKING

“Alternative methods” are essentially the different ways of performing the same activity (where and how). The purpose of the examination of “alternative methods” is to ensure that the most appropriate alternative for addressing the identified transmission opportunity is implemented for the Undertaking.

The EA will focus on identifying and evaluating alternative methods for the Undertaking. This includes looking at a reasonable range of alternative siting options and designs for facilities associated with the proposed Undertaking. Accordingly, this Terms of Reference describes “alternative methods” of completing the Undertaking which will be considered in the EA.

In accordance with MOECC’s *Code of Practice: Preparing and Reviewing Environmental Assessments in Ontario* (January 2014), a reasonable range of “alternative methods” will be identified in the EA based on the following considerations:

- Do they provide a viable solution to the problem or opportunity to be addressed?
- Are they proven technologies (at the scale required)?

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- Are they technically feasible (at the scale required)?
- Are they consistent with other relevant planning objectives, policies and decisions?
- Are they consistent with government priorities?
- Could they affect any sensitive environmental features?
- Are they practical, financially realistic and economically viable?
- Are they within the ability of the proponent to implement?
- Can they be implemented within the defined Study Area?
- Are they appropriate to the proponent doing the study?
- Are they able to meet the purpose of the Environmental Assessment Act?

The EA will provide a description of and rationale for a reasonable range of "alternative methods" for the Undertaking. Consideration of each alternative method will be evaluated after potential impacts have been determined and management measures have been applied. Identifying any requirements associated with effectively managing the key components will be considered during the evaluation of "alternative methods".

The following sections provide an overview of the key components anticipated to form part of the Undertaking for which a reasonable range of "alternative methods" will be considered in the EA. The range of "alternative methods" to be considered will be specific to the key components of the Undertaking and be within the Proponents' ability to implement. "Alternative methods" will be further refined (based on public, agency, and Aboriginal community feedback) and evaluated as the Undertaking progresses and will be presented in the EA as additional consultation and environmental/engineering studies are undertaken.

5.2.1 Transmission Line

The EA will identify and evaluate a reasonable range of alternatives associated with the transmission line. The EA will consider both siting and design aspects as noted below.

5.2.1.1 Routing

The EA will identify criteria for the identification of transmission corridor options. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost. A key consideration in the routing of the transmission line will be the relationship to the siting alternatives for the interconnection facility and the transformer station at each of the end points of the transmission line, as described below.

During selection of transmission corridor routing alternatives for consideration in the EA, Sagatay is committed to the inclusion of a range of reasonable alternative alignments, which will include

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but not limited to, the feedback received from agencies, Aboriginal groups and the public during development of the Draft ToR and the EA. The corridor routing alternatives for consideration will include the alternative corridors identified by MOECC its letters dated December 11, 2012 and February 12, 2016, which are illustrated on **Figure 3** in **Appendix A**.

5.2.1.2 Design

The EA will identify criteria to assess alternative designs for the transmission line. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost.

For example, criteria *could* include (but not limited to):

- span length between the towers to avoid sensitive environmental features (such as hazard lands, or water bodies);
- tower height to avoid the environmental features;
- access road location;
- construction timing (seasonal) and staging; and/or
- tower siting and placement in certain areas.

5.2.2 Interconnection Junction and HONI Switching Facilities

It is intended that HONI will construct, own and operate the Ignace Junction switching station. Sagatay will support HONI in these activities as required, but not limited to, acquiring and permitting the lands, and then once these activities are completed Sagatay will transfer the lease agreements and permits over to HONI for their construction, operations, and ownership activities. Sagatay will develop, permit, construct, own, and operate a substation at Ignace Junction. These lands and activities will be considered in the EA.

The EA will identify and evaluate a reasonable range of alternatives associated with the interconnection Junction and HONI Switching facility at the southern end of the transmission line. The EA will consider both siting and design aspects as noted below.

5.2.2.1 Siting

The EA will identify criteria for the identification of siting options for the interconnection facility. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost. As noted above, a key consideration in the location of the facility will be the relationship to the routing alternatives for the transmission line.

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5.2.2.2 Design

The EA will identify criteria to assess certain alternative designs for the interconnection facility. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost.

For example, criteria *could* include (but not limited to):

- access road location;
- construction timing (seasonal) and staging; and/or,
- siting and placement.

5.2.3 Pickle Lake Transformer Station and HONI Switching Station

It is intended that HONI will construct, own and operate the Pickle Lake switching station. Sagatay will support HONI in these activities as required, but not limited to, acquiring and permitting the lands, and then once these activities are completed Sagatay will transfer the lease agreements and permits over to HONI for their construction, operations, and ownership activities. Sagatay will develop, permit, construct, own, and operate a substation at Pickle Lake. These lands and activities will be considered in the EA.

The EA will identify and evaluate a reasonable range of alternatives associated with the transformer station and HONI Switching Station to be located at the northern end of the transmission line in Pickle Lake. The EA will consider both siting and design aspects as noted below.

5.2.3.1 Siting

The EA will identify criteria for the identification of siting options for the transformer station. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost. As noted above, a key consideration in the siting of the transformer station will be the relationship to the routing alternatives for the transmission line.

5.2.3.2 Design

The EA will identify criteria to assess certain alternative designs for the transformer station. These criteria will have broad considerations related to technical (engineering, constructability), environmental (social and natural) and cost.

For example, criteria *could* include (but not limited to):

- access road location;

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- construction timing (seasonal) and staging; and/or
- siting and placement.

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6.0 DESCRIPTION OF THE EXISTING ENVIRONMENT AND POTENTIAL EFFECTS OF THE UNDERTAKING

For the purpose of this TOR, a description of the existing environment and a summary of the potential effects of the Undertaking are provided in this section. The EA will include a detailed evaluation of the environment potentially affected by the Undertaking. The definition of the “environment” is adopted in accordance with Section 1.(1) of the EAA and is defined as:

- 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
- f) any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario

6.1 GENERAL SITE INFORMATION

The Undertaking is located approximately 270 km northwest of Thunder Bay, Ontario. As indicated in Section 5.2.1.1, the complete range of potential corridor alternatives have not been identified, however the Preliminary Study Area (Study Area) has been determined and covers the areal extent to which any of the alternative corridors could potentially be located (**Figure 2, Appendix A**), including the alternative corridors specifically identified by MOECC (**Figure 3, Appendix A**). The Study Area falls primarily within the District of Kenora and a smaller portion in the northeast falls within the District of Thunder Bay.

6.2 DESCRIPTION OF THE ENVIRONMENT

The description of the existing environment provided in this section is provided to familiarize the reader with the local setting and to provide a contextual understanding of the environment where the activities associated with the Undertaking will occur, and the area where the potential effects associated with the Undertaking may occur. Further detail, including full environmental baseline studies will be presented in the EA.

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The description of the environment is provided for the natural, social, economic, cultural and built environments.

6.2.1 Natural Environment

6.2.1.1 Climate

The Study Area of the Undertaking has a climate typical for an area located in Northern Western Ontario. There are approximately 25 permanent weather monitoring stations located within the Study Area monitored by various networks including: Ontario Power Generation Snow Surveys, Metrological Service of Canada Monitoring Network, and Ontario Ministry of Natural Resources Fire Weather monitoring Network. Environment Canada updates its Climate Normals Station Data based on Canadian climate stations with at least 15 years of data. The weather statistics for those stations with 15 years of data for the period of 1981-2010 are identified in

Table 6.1 (Environment Canada, 2015 a, b, c, d).

Table 6.1: Weather Monitoring Stations (1981-2010)

Name	Mean Daily Temperature	Temperatures Range (maximum to minimum)	Mean Annual Rainfall (millimetres)	Mean Annual Snowfall (centimetres)	Station Information
Pickle Lake A	0.5°C	5.7°C to -4.6 °C	522.0mm	257.0cm	Continuous
Sioux Lookout A	2.1°C	7.3°C to -3.2°C	573.6mm	209.5cm	Continuous
Dryden A	2.4°C	7.5°C to -2.7°C	555.8mm	174.7cm	Continuous
Dryden	2.0°C	7.1°C to -3.1 °C	586.8mm	138.9cm	Seasonal

Overall, the Study Area falls within the Boreal Shield ecozone which is typical of cold winters and short warm summers. There are high levels of precipitation, and the climate is generally continental and influenced by cold air masses from Hudson Bay (Historic Canada, 2015).

6.2.1.2 Air Quality

There is only one ambient air quality monitoring station within the Study Area located at Pickle Lake and only ozone (O₃) is monitored at this station; the next nearest station to the Study Area is located within Thunder Bay, Ontario and measures ozone, nitrogen dioxide and particulates. All additional ambient air quality monitoring stations are located hundreds of kilometers from the Study Area.

Overall there is minimal heavy industry within the Study Area with the exception of a mining operation near Pickle Lake in the northern portion of the Study Area (the Musselwhite Mine) and a forestry operation within Ignace in the southern portion of the Study Area (the Ignace Sawmill).

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Background concentrations of air contaminants are expected to be minimal. Site specific background air quality data is not available for the Study Area.

The nearest provincial ambient air quality station located in Thunder Bay is approximately 300 km from the Study Area. Estimates of background concentrations for the 2013 monitoring year are identified in **Table 6.2**.

Table 6.2: Regional Ambient Air Quality Concentrations – 2010 – Thunder Bay

Parameter	10 th Percentile	30 th Percentile	Annual Mean	Station
PM _{2.5} (µg/m ³)	2	4	6.3	Thunder Bay
Ozone (ppb)	10	20	26.3	Thunder Bay
NO (ppb)	1	1	4.7	Thunder Bay
NO ₂ (ppb)	2	3	7.3	Thunder Bay
NO _x (ppb)	3	5	12.0	Thunder Bay

The maximum observed ozone ground-level concentration measured at the Thunder Bay station in 2013 was 63 ppb over a 1-hour averaging period, which is below the Ontario Ambient Air Quality Criteria (AAQC) of 80 ppb for the 1-hour averaging period. The maximum observed nitric oxide (NO) ground-level concentration measured at the Thunder Bay station in 2013 was 121 ppb over a 1-hour averaging period. There is no AAQC for NO.

6.2.1.3 Noise

The Study Area encompasses a varied ambient sound environment, with a large portion of the Study Area with very little to no development or anthropogenic sources. In addition, parts of the project area are close to a Provincial highway, but still relatively remote. Existing anthropogenic noise sources in the area include the road traffic, resource based industries, and recreational activities.

An increase in sound levels in the vicinity of the transmission line and related infrastructure would be expected both during construction and operation due to sources such as generators, heavy-duty vehicles, and power transformers. The potential for nuisance due to sounds from the transformer stations will be an important factor to consider during operation. Noise mitigation measures may be required in order for the Undertaking to meet guidelines and to minimize the disturbance to Noise receptors in the vicinity of the Project components during construction and operation. This will be further determined during the EA.

6.2.1.4 Physiography

The topography of the Study Area is relatively flat to gently rolling which is largely attributed to the glaciation and postglacial deposition and has generally reduced the elevation of the land,

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and exposed the bedrock within north western Ontario. There are no distinct topographic features that stand out in relief. Lower lying areas are characterized by streams and lakes. The land within the Study Area generally has an elevation that ranges within 400 to 425 metres above sea level (m asl). However, throughout the Study Area portions of the land are as low as 326 m and as high as 574 meters above sea level (masl). Specifically, the areas surrounding Pickle Lake and Sioux Lookout have a lower elevation and areas surrounding Ignace and Savant Lake have a higher elevation.

6.2.1.5 Surficial Geology

The Study Area is typically composed of ground moraine, with areas of bedrock and organic deposits. There is also the potential for beach and Aeolian deposits as well as outwash deposits in the far southeast of the preliminary Study Area and lacustrine deposits throughout the west portion of the Study Area.

6.2.1.6 Aquatic Environment

The Study Area for the proposed transmission line is located within the Hudson Bay Watershed, and watercourses ultimately drain north to Hudson Bay and eventually to the Arctic Ocean (EC 2014). Water is one of the dominant features of the landscape and is comprised of lakes, ponds, rivers, creeks and wetlands, many of which may provide habitat for fish and/or mussel communities. There are approximately 1774 lakes and 152 ponds within the Study Area, most of which are coolwater and coldwater lakes (LIO 2015). Some of the larger lakes include Lake St. Joseph (coldwater), Sturgeon Lake (coldwater), Minnitaki Lake (coldwater) and Wabigoon Lake (coolwater).

Sturgeon Lake is one of the larger lakes in the Study Area for which fish community data are available from accessible databases. The Sturgeon Lake fish community includes the following species: Rock Bass (*Ambloplites rupestris*), Walleye (*Sander vitreus*), Sauger (*Sander canadensis*), Northern Pike (*Esox lucius*), Brook Trout (*Salvelinus fontinalis*), Lake Whitefish (*Coregonus clupeaformis*), Burbot (*Lota lota*), Yellow Perch (*Perca flavescens*), Muskellunge (*Esox masquinongy*), Cisco (*Coregonus sp.*), Lake Trout (*Salvelinus namaycush*), White Sucker (*Catostomus commersonii*) and Smallmouth Bass (*Micropterus dolomieu*) (MNRF 2015). Lake Trout, Brook Trout, Burbot and Lake Whitefish are coldwater species while the remaining species occupy coolwater habitats (Eakins 2015). These species, along with small-bodied fish (*Cyprinidae sp.*), are representative of the species likely to inhabit many of the streams, rivers, ponds and lakes of the Study Area and are relatively common in Northern Ontario. In order to support the coolwater and coldwater fish communities, a diverse range of habitats must be available to support all life stages including spawning, rearing and feeding. As a result of the diverse range of habitats and the abundance of gamefish available in the waters of the Study Area, numerous fishing lodges are scattered across lakes in the Study Area and recreational

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fishing is a popular pastime. Commercial outpost camps and boat cache lakes used by the resource-based tourism sector also occur throughout the Study Area.

Freshwater mussels are found in a wide variety of lentic and lotic habitat in Northern Ontario, in substrates ranging from mud to coarse gravel and cobble. They are good assimilators of water quality because they are filter feeders and are able to process large volumes of water as they feed. Their presence or absence will reflect the water quality of the area and due to the parasitic nature of their reproductive cycle; their presence may also reflect the health of their host fish species (Metcalf-Smith *et al* 2005). The following four mussel species are known to occur in the waters of Northern Ontario (Clarke 1981): Creek Heelsplitter (*Lasmigona compressa*), Cylindrical Papershell (*Anodontoides ferussacianus*), Giant Floater (*Pyganodon grandis*) and Fatmucket (*Lampsilis siliquoidea*), all of which are relatively common within Ontario.

6.2.1.7 Terrestrial Environment

A preliminary review of the natural heritage features that may potentially occur within the Study Area was undertaken to identify natural heritage constraints and opportunities.

The MNR's Land Information Ontario (LIO) database was used as a source of known information to identify features for available subcomponents (e.g. aquatic feeding habitat; cervid movement corridors, moose and caribou habitat, etc.) within the Study Area. The LIO information is not expected to be comprehensive for such a large and remote area; additional features and constraints will be identified during the detailed field work for the EA. The LIO information was supported through a general review of information available from Sagatay Transmission L.P. Draft Terms of Reference (Nov 2012), and applicable wildlife atlases.

6.2.1.7.1 Designated Areas

Seven Provincial Parks and two Provincial Nature Reserves are located in the Study Area including:

- Albany River Provincial Park
- East English River Provincial Park (Waterway Class)
- Lola Lake Provincial Nature Reserve
- Sandbar Lake Provincial Park (Natural Environment Class)
- Minnitaki Kames Provincial Nature Reserve
- Ojibway Provincial Park
- St. Raphael Lake Provincial Park (Waterway Class)
- Turtle River-White Otter Lake Provincial Park (Waterway Class)

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- Wabakimi Provincial Park

Seven Conservation Reserves were identified within the Study Area:

- Adair Lake Conservation Reserve
- Airport Road Conservation Reserve
- Campus Lake Conservation Reserve
- Lac Seul Islands Conservation Reserve
- Melgund Lake Conservation Reserve
- Upper English River Conservation Reserve
- Pyatt Lake Conservation Reserve

No Areas of Natural and Scientific Interest (ANSI) or National Parks occur within the Study Area.

6.2.1.7.2 Woodlands

The Study Area contains forested lands within the Boreal forest vegetative community. Forested areas are dominated by red and eastern white pine, black spruce, larch, trembling aspen, white spruce, white birch, balsam poplar and jack pine (Crins et al., 2009) From LIO mapping, four Significant Woodlands, and three Old Growth Forest sites were also identified in the Study Area.

6.2.1.7.3 Wetlands

Wetlands are areas seasonally or permanently covered by shallow water, or where groundwater is close to, or at, the land surface. They are identified through the presence of hydric soils and a community of water-tolerant plant species (MNRF, 2014c). Wetlands which are identified as provincially significant are those which have been mapped and scored using a ranking system known as the Ontario Wetland Evaluation System (OWES), which awards points based on productivity and diversity, human use, hydrologic functions, and unique characteristics such as geographical rarity (MNRF, 2014c). Many northern Ontario wetlands have not yet been evaluated using OWES.

No Provincially Significant Wetlands occur within the Study Area; however LIO mapping indicates that there are 2,048 wetlands within the Study Area that have not been evaluated.

6.2.1.7.4 Wildlife

LIO mapping and information from the Natural Heritage Information Centre (NHIC) were used to identify known wildlife habitat within the Study Area. In addition the Atlas of Breeding Birds of Ontario, the Ontario Reptile and Amphibian Atlas, and the Ontario Mammal Atlas were used to

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Ontario, the Ontario Reptile and Amphibian Atlas, and the Ontario Mammal Atlas were used to assess possible Species at Risk (SAR) in the Study Area. These findings are summarized in **Table 6.3** and discussed in the following sections.

6.2.1.7.5 Significant Wildlife Habitat

The Natural Heritage Reference Manual (MNR, 2010) was used to assess Significant Wildlife Habitat (SWH) in the Study Area. The Natural Heritage Reference Manual categories wildlife in these four categories:

- Seasonal Concentration Areas
- Rare Vegetation Communities or Specialized Habitats for Wildlife
- Habitats of Species of Concern (excluding endangered and threatened species)
- Animal Movement Corridors

These categories were evaluated with respect to the Study Area, and are discussed in the following sections.

Seasonal Concentration Areas

During specific times of year, some species of wildlife concentrate in relatively small areas that provide important cover and protection from inclement weather conditions or predators, or provide abundant food sources (MNR 2000). Examples of seasonal concentration areas that may occur within the Study Area include, but not necessarily limited to, moose late winter cover, bat hibernacula, bat maternity colonies or colony nesting birds.

No known Seasonal Concentration Areas were identified within the LIO database. They will be subject to further investigation during the EA.

Rare Vegetation Communities or Specialized Habitats for Wildlife

Rare habitats include provincially rare vegetation communities with ranks of S1, S2 or S3 and often contain rare species. Examples of rare habitats that may occur within the Study Area include red and white pine stands, red and sugar maple forest, rock barren or bog.

Specialized habitats for wildlife include areas with exceptionally high species diversity or areas that support wildlife species with very specific habitat requirements (MNR 2000). Examples of specialized habitats that may occur within the Study Area include woodland raptor nesting habitat, seeps and springs, aquatic feeding habitat, denning sites and amphibian breeding habitat.

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A review of the LIO database has identified two known specialized habitat within the Study Area: aquatic feeding areas, and woodland raptor nesting habitat. Other rare or specialized habitats will be subject to further investigation during the EA.

Aquatic Feeding Area

In early summer, moose consume large quantities of aquatic plants, particularly submergent species, in order to replenish their bodies with sufficient sodium for antler development and lactation. Moose may move up to 30km to reach preferred feeding sites, and will feed for several hours each day. Aquatic feeding areas must have an abundance of high-sodium aquatic plant species, and be located in an undisturbed area with adjacent forest habitat for shade and cover.

Moose aquatic feeding areas overlap with many of the unevaluated wetlands and are distributed throughout the Study Area.

Woodland Raptor Nesting Habitat

Many raptor species require specialized nesting habitat, such as woodlands or grasslands, in order to breed, and may return to the same site for multiple years of breeding. Some woodland raptors such as the Broad-winged Hawk, require mature trees that can support their nest, as well as a closed canopy, understory trees, and more than 100 ha of forest space (MNR 2000). Two confirmed Broad-wing Hawk nests with young have been previously identified within the Study Area, as well as six unknown hawk or owl nesting sites.

6.2.1.7.6 Habitats of Species of Concern

LIO and NHIC databases were used to compile a list of potential species of conservation concern (provincially ranked Special Concern and/or S1-S3). The applicable wildlife atlas was used to confirm if the species are likely to be found in the Study Area. They are listed in the following sections, and detailed in **Table 6.3**.

Vegetation

Seven plant species were identified as potentially present in the Study Area and include: S1-S3: Brook cinquefoil, Hairy goldenaster, Northern mudwort, Slender bulrush, Vasey's rush, Water pygmyweed, and Woolley-beach heath.

Birds

Eleven bird species were found to be of Special Concern, or ranked as S1-S3 provincially. They were: Bald Eagle, Black Tern, Canada Warbler, Common Nighthawk, Eastern Wood-pewee,

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Olive-sided Flycatcher, Peregrine Falcon, Red-necked Grebe, Short-eared Owl, Yellow-headed Blackbird, and Yellow Rail.

Reptiles and Amphibians

The Ontario Reptile and Amphibian Atlas was accessed to compile a list of recorded Special Concern and S1-S3 species in the Study Area. The following species were identified: Snapping Turtle and Western Chorus Frog.

Insects

The LIO and NHIC databases were used to compile a list of potential insect species of conservation concern (provincially ranked Special Concern or S1-S3). Four were identified: Forcinate Emerald (dragonfly), Macoun's Arctic (butterfly), Prairie Bluet (damselfly) and Taiga Alpine (butterfly).

Animal Movement corridors

Animal movement corridors are linear, vegetated landscape features which link major habitats (ex. breeding and feeding) and provide cover for wildlife moving through relatively unfamiliar territory (MNR 2000). The composition of a corridor differs based on the species' requirements, thus corridors may include riparian zones and shorelines, wetland buffers, valleys, woodlands, and anthropogenic features such as utility corridors.

No Animal Movement Corridors were identified within the LIO database. They will be subject to further investigation during the EA.

Wildlife Management Areas

Bear Management Areas delineate areas where bear hunting is regulated by the MNR. Typically such an area is characterized by potential bear habitat and are managed by tourist outfitters or guides licensed to hunt bear. The Bear Management Area program is intended to encourage bear operators to manage bear harvest on Crown land in a sustainable manner, and address commercial competition for the resource. Bear Management Areas, where bear hunting is regulated, occur throughout the Study Area.

LIO mapping also determined that there were three types of Habitat Planning Ranges in the Study Area. Six Deer, four Caribou, and one Marten Habitat Planning Range were identified.

6.2.1.7.7 Species at Risk and SAR Habitat

Species that are listed on Schedule 1 of the federal *Species at Risk Act* (SARA) as endangered or threatened are afforded protection of critical habitat on federal lands. On private or

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provincially-owned lands, only aquatic species listed as endangered, threatened or extirpated and migratory birds are protected under the SARA, unless ordered by the Governor in Council.

The provincial *Endangered Species Act (ESA), 2007 (ESA 2007)* was created to protect species at risk and their habitats in Ontario. Endangered, threatened and extirpated species listed on the Species at Risk in Ontario (SARO) list automatically receive legal protection from harm or harassment under the ESA, 2007. In addition to species protection, the ESA, 2007 prohibits damage or destruction of habitat for endangered or threatened species. This section of the ESA, 2007 is subject to transition provisions, meaning that habitat protection does not yet apply to all species. Currently, a given species' habitat may either: not be protected, have general habitat protection, or have regulated habitat protection. Whether or not a given habitat is protected and what type of protection it is provided depends mainly on when the species associated with it was added to the SARO list, and on its designated status.

SAR, protected federally and/or provincially, were classified as present, potentially present, or not present within the Study Area. SAR were identified through a review of background data sources (including the NHIC and LIO databases, Bird, Reptile and Amphibian, and Mammal atlases of Ontario).

Vegetation

There were no SAR vegetation species identified within the Study Area. Further detailed studies on SAR vegetation will be included in the EA.

Birds

The Atlas of Breeding Birds of Ontario was accessed to compile a list of possible, probable, and confirmed breeding SAR in the Study Area. The following seven species were identified as provincially Endangered or Threatened (COSSARO): Bank Swallow, Barn Swallow, Bobolink, Chimney Swift, Eastern Whip-poor-will, Golden Eagle, and Least Bittern. All species are summarized in **Table 6.3**.

Reptiles and Amphibians

There were no identified SAR reptiles or amphibians in the Study Area.

Mammals

The Ontario Mammal Atlas was accessed to compile a list of possible species in the Study Area. The following SAR were identified: Little Brown Myotis, American Badger, Wolverine, and Woodland Caribou. All species are summarized in **Table 6.3**.

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Insects

There were no potential SAR insects identified within the Study Area.

Aquatics Species

According to the NHIC database, one aquatic SAR, is known to occur in the Study Area (NHIC 2015). The record is for Lake Sturgeon (*Acipenser fulvescens*) from the Southern Hudson Bay/James Bay population; the record is from Lake St. Joseph and the species was last observed in 1973. The Southern Hudson Bay/James Bay population of Lake Sturgeon is ranked as Special Concern by COSSARO and COSEWIC (COSEWIC 2015) and has no status or protection under SARA ; however, it is regulated under ESA but is not subject to the prohibitions therein.

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
VEGETATION					
Brook Cinquefoil (<i>Potentilla rivalis</i> <i>var. rivalis</i>)	SH	---	---	NHIC	Brook cinquefoil can be found in moist meadows, stream banks, gravel bars in flood plains, and open river bottom forests (Flora of North America 2015). The last occurrence of this species in the Study Area was 1939 (NHIC).
Hairy Goldenaster (<i>Heterotheca villosa</i> <i>var. minor</i>)	S1	---	---	NHIC	The Hairy goldenaster is naturally found in prairies, meadows, fields, rocky bluff and alpine habitats, and grows in dry sandy soils (Evergreen 2000-2014).
Northern Mudwort (<i>Limosella aquatica</i>)	S2	---	---	NHIC	Northern mudwort is a wetland or semi-aquatic species that has a small and specialized range consisting of ephemeral rainwater pools that form in shallow depressions in bedrock protrusions, and native prairies (Gleason and Cronquist, 1991).
Slender Bulrush (<i>Schoenoplectus heterochaetus</i>)	S3	---	---	NHIC	Slender Bulrush fruits during the summer, and is found in fresh, often calcareous marshes and lakes. This bulrush is often emergent in water (Flora of North America, 1993).
Vasey's Rush (<i>Juncus vaseyi</i>)	S3	---	---	NHIC	Vasey's rush is found in permanently moist, exposed habitats which include wet meadows, raised spots or margins of bogs, or depressions along sandy lake edges (Flora of North America 2000).
Water Pygmyweed (<i>Crassula aquatica</i>)	S2	---	---	NHIC	Water Pygmyweed, an aquatic plant, is mainly found in coastal salt marshes, but can also be found in brackish mudflats, vernal pools, and muddy margins of ponds and streams (Cody, 1954).
Woolly-Beach heath (<i>Hudsonia tomentosa</i>)	S3	---	---	NHIC	Woolly Beach-heath, a low bushy plant, is found in along the coast, and inland along the Great Lakes and prefers dry, sandy soils (Newcomb 1977).

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
BIRDS					
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	S2N, S4B	SC	---	OBBA & NHIC	The Bald Eagle almost always nests near water, usually on large lakes. Large stick nests are placed in trees located within mature woodlots. They usually prefer 250 ha of mature forest for breeding (Sandilands, 2005). Breeding evidence within the Study Area has been confirmed.
Bank Swallow (<i>Riparia riparia</i>)	S4B	THR	THR-NS	OBBA	Bank Swallows excavate nests in exposed earth banks along watercourses and lakeshores, roadsides, stockpiles of soil, and the sides of sand and gravel pits. Colonies are typical and range from two to several thousand. Adjacent grasslands and watercourses are used for foraging habitat (Cadman et al., 2007). Occurrences within the Study Area are probable.
Barn Swallow (<i>Hirundo rustica</i>)	S4B	THR	THR-NS	OBBA	Barn Swallows nest on man-made structures such as walls or ledges of barns, bridges or culverts (Cadman et al., 2007). Where suitable nesting structures occur, they often form small colonies. Barns Swallows are generally considered grassland species, foraging aerial insects over meadows, hay, pasture, mowed lawns, woodland clearings, wetland habitats, or open water (COSEWIC, 2011). Potential habitat for this species is expected to be rare within the Study Area, restricted to open wetlands or clear cut areas.
Black Tern (<i>Chlidonias niger</i>)	S3B	SC	---	OBBA	The Black Tern is a small tern that nests semi-colonially in freshwater marshes with emergent vegetation. This species prefers marsh habitat more than 20 ha in size for breeding (Dunn and Agro, 1995); consisting roughly of half open water and half emergent vegetation (Cadman et al, 2007).
Bobolink (<i>Dolichonyx oryzivorus</i>)	S4B	THR	THR	OBBA & NHIC	The Bobolink is generally referred to as a "grassland species". It nests primarily in forage crops with a mixture of grasses and broad-leaved forbs, predominantly hayfields and pastures. Preferred ground cover species include grasses such as Timothy and Kentucky bluegrass and forbs such as clover and dandelion (COSEWIC 2010). Bobolink is an area-sensitive species, with reported lower reproductive success in small habitat fragments (Kuehl and Clark 2002; Winter et al. 2004).

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
Canada Warbler (<i>Wilsonia Canadensis</i>)	S4B	SC	THR	OBBA	The Canada Warbler is usually found in moist mixed deciduous-coniferous forests with a well-developed understorey. It may also occur in shrub marshes, red maple stands, coniferous riparian woodlands, ravines, steep brushy slopes, and regenerating forests (COSEWIC, 2008a; COSSARO, 2009). Potentially suitable habitat occurs throughout the wooded areas in the Study Area.
Chimney Swift (<i>Chaetura pelagica</i>)	S4B, S4N	THR	THR	OBBA	Chimney Swifts use chimneys for roosting and breeding, as well as walls, rafters, or gables of buildings and, less frequently, natural structures such as hollow trees, tree cavities and cracks in cliffs (Cadman et al., 2007). The main factor contributing to the species' decline is the reduction of suitable breeding and roosting habitat through logging, removal of abandoned buildings and particularly the reduction in use of traditional chimneys. Poor weather conditions during breeding season, pesticide use, chimney sweeping during breeding season and intolerance of some building owners are also contributing factors (COSEWIC, 2007a). Potential habitat for this species occurs throughout the wooded area in the Study Area.
Common Nighthawk (<i>Chordeiles minor</i>)	S4B	SC	THR	OBBA	Common Nighthawk is an aerial insectivore and forages at dawn and dusk. Common Nighthawks nest on the ground in open habitats preferably with rocky or gravelled substrate. The regeneration or succession of forest clearings and the destruction of grassland habitats appear to play a major role in this species' decline along with the non-selective spraying for mosquitoes (Cadman et al., 2007). Potential habitat for the Common Nighthawk occurs throughout wooded area in the Study Area.
Eastern Whip-poor-will (<i>Antrostomus vociferous</i>)	S4B	THR	THR	OBBA	Whip-poor-will favour open woodlands with frequent clearings. Its preferred nesting sites contain shaded leaf litter or pine needles and generally occur along wooded edges or in clearings without any herbaceous growth (Cadman et al., 2007). The species is considered to be area-sensitive, preferring 100 ha of suitable habitat for breeding (COSEWIC, 2009). Suitable habitat occurs throughout the wooded area in the Study Area.

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
Eastern Wood-Pewee (<i>Contopus virens</i>)	S4B	SC	SC-NS	OBBA	The Eastern Wood-pewee is a forest bird of deciduous and mixed woods. Nest site selection favours open space, typically provided by clearings, roadways, water, and forest edges. Nests are cryptic as they are covered with lichens, typically appearing like a knot on top of a branch. Little is known about nesting behaviour (Cadman et al 2007). Occurrences within the Study Area are probable.
Golden Eagle (<i>Aquila chrysaetos</i>)	S2B	END	NAR	OBBA	The Golden Eagle is found predominantly along the west coast of North America as well as northern Canada. It inhabits mountain regions, as well as dry, rugged open country, including grasslands. Nesting sites typically occur along cliff ledges. Nesting sites are also known to occasionally occur in trees and open tundra in northern Canada (ROM 2008). Occurrences within the Study Area are likely of migratory individuals.
Least Bittern (<i>Ixobrychus exilis</i>)	S4B	THR	THR	OBBA	The Least Bittern nests in freshwater marshes where dense and woody vegetation, and open water occur. They are mainly found in marshes greater than 5 ha in size (Gibbs <i>et al.</i> , 1992). The Canadian population of Least Bitterns is estimated at less than 1000 pairs, with the majority in Ontario. The species is threatened due to its very small and declining population that depends on high quality marsh habitats that are being lost and degraded across the species' range (NHIC, 2007). The Least Bittern is protected under the Canadian Species at Risk Act (SARA), the Canada/United States Migratory Birds Convention and the Migratory Bird Treaty between the United States and Mexico. Occurrences within the Study Area are possible.
Olive-sided Flycatcher (<i>Contopus borealis</i>)	S4B	SC	THR	OBBA	The Olive-sided Flycatcher breeds in the Boreal Forest, where it primarily uses coniferous trees to support its cup-shaped nest. Only a handful of Olive-sided Flycatchers have been found to breed below the Canadian Shield in Ontario. This species is known to have the lowest reproductive rate of all Canadian flycatchers, which may be attributed to its later breeding date (Cadman et al., 2007). Natural and man-made openings in coniferous or mixed forests with nearby water or wetlands are preferred and the presence of tall trees or snags for perching and foraging are essential (COSEWIC, 2007b). Suitable habitat for this species occurs throughout the wooded and wetland areas in the Study Area.

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
Peregrine Falcon (<i>Falco peregrinus</i>)	S3B	SC	SC	OBBA	Traditionally in Ontario, this species has been a rare breeder. Preferable breeding habitat includes rock cliffs (particularly those adjacent to water). Relatively recent increases in abundance and distribution are owing to now established populations in natural areas and urban environments, both of which are separate and distinct populations. These increases reflect large-scale recovery efforts across the species' range (Cadman et al, 2007). Occurrences within the Study Area are possible.
Red-necked Grebe (<i>Podiceps grisegena</i>)	S3B, S4N	NAR	NAR	OBBA & NHIC	In North America, the Red-necked Grebe breeds mainly on small inland lakes and other waterbodies in northern prairie, western parkland, and forest habitats (Stout and Nuechterlein, 1999). Most nesting areas in Ontario are in the northwest where it is sparsely populated (Cadman et al., 2007). The Red-necked Grebe winters on northern coastlines on the Atlantic and Pacific. Breeding evidence within the Study Area has been confirmed.
Short-eared Owl (<i>Asio flammeus</i>)	S2N, S4B	SC	SC	OBBA	Short-eared owls inhabit open habitats such as agricultural lands, wetlands, and grasslands. This area sensitive species nests on the ground usually in tall vegetation and typically prefers 75 hectares of suitable habitat for nesting to occur. Breeding area on any given year is strongly correlated to small rodent abundances (Clark, 1975). Occurrences within the Study Area are probable.
Yellow-headed Blackbird (<i>Xanthocephalus xanthocephalus</i>)	S2B	---	---	OBBA	The Yellow-headed Blackbird breeds in prairie wetlands and along other western lakes, permanent marshes where tall reeds and rushes are present. These birds can be seen foraging in wetlands and in surrounding grasslands and croplands. In winter large flocks forage in agricultural areas. The breeding range for this species in Ontario is limited, but extends west to British Columbia (Cadman et al, 2007). Occurrences within the Study Area are probable.
Yellow Rail (<i>Coturnicops noveboracensis</i>)	S4B	SC	SC	OBBA & NHIC	Small stature and a secretive nature make the Yellow Rail an extremely difficult bird to observe. The Yellow Rail inhabits sedge-dominated wetlands which retain standing water through their breeding season. In Ontario, few Yellow Rail nesting sites have been confirmed yet possible sites were scattered across the Canadian Shield and the Hudson's Bay lowlands. A local abundance occurs near Rainy River. No recent breeding or possible breeding sites have been found south of Prince Edward County (Cadman et al, 2007). Occurrences within the Study Area

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
					are probable.
REPTILES AND AMPHIBIANS					
Snapping Turtle (<i>Chelydra serpentina</i>)	S3	SC	SC	OHA	Snapping Turtles inhabit ponds, sloughs, streams, rivers, and shallow bays that are characterized by slow moving water, aquatic vegetation, and soft bottoms. Females show strong nest site fidelity and nest in sand or gravel banks at waterway edges in late May or early June (COSEWIC, 2008b). Occurrences within the Study Area are probable.
Western Chorus Frog (great lakes-shield) (<i>Pseudacris triseriata</i>)	S3	NAR	THR	OHA	Western chorus frogs inhabit a range of habitat types including woodlands, meadows, and agricultural land. They overwinter in terrestrial habitats under rocks, logs, leaf litter, loose soil, or animal burrows. The eggs are laid in small clumps attached to submerged vegetation usually in small or shallow aquatic habitats, mostly temporary ponds and wetlands that become dry in the summer. The Western Chorus Frog will often move into grassy or weedy fields during the non-breeding summer season (COSEWIC, 2008c). Occurrences within the Study Area have been confirmed.
MAMMALS					
American Badger (<i>Taxidea taxus taxus</i>)	S2	END	END	OMA	According to Dobbyn (1994), only two small Ontarian populations remain: along the north shore of Lake Erie and in Rainy River. It prefers open areas such as grasslands, agricultural areas, and parklands (Eder, 2002). Badgers can travel sizeable distances and occupy large home ranges (MNR, 2014a). Occurrences within the Study Area have been confirmed.
Little Brown Myotis (<i>Myotis lucifugus</i>)	S4	END	END	OMA	This species up until recently was considered the most common bat species in Ontario, and most frequently found bat species in North America. The recent change in status is due to significant declines in recent years attributed to a condition referred to as White-nose Syndrome (WNS). A widespread species, the Little Brown Myotis is commonly found near waterbodies in buildings, attics, roof crevices and loose bark on trees or under bridges (Eder, 2002). Suitable habitat for this species occurs throughout the Study Area.

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
Wolverine (<i>Gulo gulo</i>)	S2S3	THR	SC	OMA	The Wolverine was once found throughout most of Ontario, but is now mainly found in the northwestern regions. Their habitat is boreal forest and coastal tundra. They have a wide individual territory range of 500 to 1500 square km (MRN, 2015). Potential habitat for this species occurs throughout the Study Area.
Woodland Caribou (<i>Rangifer tarandus caribou</i>)	S4	THR	THR	OMA	Woodland Caribou (forest dwelling boreal population of Ontario) have naturally low densities (traveling in bands of 3-4), and can have annual home ranges of 200 to 4,000 square km (MNR, 2009). Their suitable habitats include mature, lichen-rich boreal forests, uniformly aged stands, bogs, and fens (NHIC, 2014). In Ontario, Woodland Caribou are found throughout northern regions, and populations are estimated to be 5,000 individuals (COSSARO, 2015). The Study Area is situated across three caribou ranges; the Churchill Range to the west, the Brightsand Range to the east, and the Kinloch Range to the North (MNR, 2014), (MNRF, 2014d), (MNRF, 2014e). The Recovery Strategy for the Woodland Caribou identifies some potential effects of transmission lines at the landscape level, including fragmentation, stating that 'linear corridors, especially those bisecting caribou winter range, may directly relate to increased mortality' (Ontario Woodland Caribou Recovery Team, 2008).
INSECTS					
Forcipate Emerald (<i>Somatochlora forcipata</i>)	S3	---	---	NHIC	The Forcipate Emerald dragonfly is found in bog pools, and small forested streams. It is found throughout Canada and in some north eastern states. In Ontario, it is widespread, but rare (Massachusetts Division of Fisheries and Wildlife, 2015).
Macoun's Arctic (<i>Oeneis macounii</i>)	S3	---	---	NHIC	The Macoun's Arctic butterfly feeds on grasses and sedges and is found in Algonquin Park as well as north and west of Lake Superior. It can be found in pine ridges, grassy areas, and acidic bog (Holmes et al. 1991).
Prairie Bluet (<i>Coenagrion angulatum</i>)	SH	---	---	NHIC	The Prairie Bluet damselfly can be found in prairie ponds and sloughs, and slow moving, shallow streams (University of Alberta, 2001-2015). The last occurrence of this species in the Study Area was 1947.

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Table 6.3: Summary of Species at Risk and Species of Conservation Concern within the Study Area

Species	S-Rank	COSSARO	COSEWIC	SOURCE	Habitat Description & Possible Presence
Taiga Alpine (<i>Erebia mancinus</i>)	S3	---	---	NHIC	The Taiga Alpine butterfly is found from Alaska to northern Quebec, mainly in open black spruce-sphagnum bogs, but in Quebec occur in tamarack forests near bogs (Layberry et al., 1998).

Notes:

S-Ranks (provincial ranking)

- S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)
- S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer),
- S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)
- S4: Apparently Secure—Uncommon but not rare
- S5: Secure—Common, widespread, and abundant in the province
- SH: Possibly Extirpated (Historical)
- S#B- Breeding status rank
- S#N- Non Breeding status rank

Committee on the Status of Species at Risk in Ontario (COSSARO) status:

- END: Endangered
- THR: Threatened
- SC: Special Concern

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) status:

- END: Endangered
- THR: Threatened
- SC: Special Concern

2, 3 or NS after a COSEWIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the federal SARA

Sources:

- NHIC: Natural Heritage Information Centre database
- OBBA: Ontario Breeding Bird Atlas
- OHA: Ontario Reptile and Amphibian Atlas
- OMA: Ontario Mammal Atlas

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6.2.2 Social Environment

6.2.2.1 Population and Demographics

The majority of the Study Area lies within the southern portion of Kenora District, while a small portion near Pickle Lake is within the Thunder Bay District. Kenora District is the largest in Ontario covering 407,213 km² (Statistics Canada, 2012a). According to Statistics Canada (2012a), the population of Kenora District in 2011 was 57,607, with a low population density of 0.1 people per square kilometer.

There are four incorporated municipalities within the Kenora District including: the City of Dryden, the Municipality of Sioux Lookout, the Township of Ignace and the Township of Pickle Lake. The Study Area also goes through unincorporated townships.

Table 6.4 identifies the total populations according to Statistics Canada (2012,b,c,d,e), in 2011 for the incorporated municipalities within the Kenora District:

Table 6.4: Kenora District Incorporated Municipalities Total Registered Populations

Municipality	Population
Dryden	7, 617
Sioux Lookout	5, 037
Ignace	1, 202
Pickle Lake	425

No incorporated municipalities are located within the Thunder Bay District portion of the Project Study Area.

6.2.2.2 Aboriginal Communities

The Ministry of Energy (MOE) has identified the following First Nation and Aboriginal Communities that should be consulted in the planning and Environmental Assessment of the proposed Undertaking and engagement activities of these first nations, and other interested First Nations or Aboriginal Communities will be completed as part of the EA in accordance with the Consultation Plan outlined in Section 9.0.

Mishkeegogamang Ojibway Nation

Mishkeegogamang Ojibway Nation is located about 500 km northwest of Thunder Bay, Ontario, and about 30 km south of Pickle Lake, Ontario. Approximately 1047 members live on two reserves (63A and 63B), while approximately 785 live off their reserves. (AANDC 2015)

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Mishkeegogamang Ojibway Nation is a partner in Sagatay Transmission L.P., the Proponent for the Proposed Undertaking.

Ojibway Nation of Saugeen

Ojibway Nation of Saugeen has one reserve (No. 6078) located approximately 20 km NW of Savant Lake. A total of 85 members live on reserve and 149 members live off their reserve. The governance consists of one Chief and three Councillors elected under a Custom Electoral System (AANDC 2015). Ojibway Nation of Saugeen is a partner in Sagatay Transmission L.P., the Proponent for the Proposed Undertaking.

Wabigoon Lake Ojibway Nation

Wabigoon Lake Ojibway Nation has one reserve (Wabigoon Lake 27) located approximately 19 km South East of Dryden. A total of 190 members live on reserve and 519 members live off reserve. The governance consists of one Chief and four Councillors elected under an Indian Act Electoral System (AANDC 2015).

Lac Seul First Nation

Lac Seul First Nation has one reserve (Lac Seul 28) located approximately 56 km North East of Dryden. A total of 862 members live on reserve and 2510 members live off reserve (AANDC, 2015). The governance consists of one Chief and eight Councillors elected under an Indian Act Electoral System. (AANDC, 2015)

Slate Falls Nation

Slate Falls Nation has one reserve (Slate Falls Indian Settlement) located approximately 56 km North East of Dryden. A total of 25 members live on reserve and 247 members live off their reserve. The governance consists of one Chief and two Councillors elected under a Custom Electoral System. (AANDC, 2015)

Eagle Lake First Nation

Eagle Lake First Nation has one reserve (Eagle Lake 27) located approximately 13 km southwest of Dryden. A total of 354 members live on reserve and 247 members live off their reserve (AANDC, 2015). The governance consists of one Chief and four Councillors elected under an Indian Act Electoral System. (AANDC, 2015)

Northwest Métis Council

The Northwest Métis Council represents and serves the needs of the Métis people throughout the Northwest Region, promotes the history and culture of the Métis people; fosters cultural pride

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of its membership and promote education of Métis rights; and encourages the participation of its members in community, municipal, provincial, federal, Aboriginal and other organizations.

In addition to the First Nation and Aboriginal Communities identified by MOECC, additional interested First Nations have been identified during the earlier consultation activities, and will continue to be consulted with in accordance with the Consultation Plan outlined in Section 9.0.

6.2.2.3 Community Infrastructure and Services

There are a few year round roads within the Study Area, including the Trans-Canada Highway (Highway 17), Highway 72, Highway 599, Highway 516, Highway 664 and Highway 642. Highway 17 runs along the southern border of the Study Area. Highway 72 extends from Dryden to Sioux Lookout. Highway 599 extends from Ignace and ends at Pickle Lake. Highway 516 connects Sioux Lookout with Savant Lake. Highway 664 connects Sioux Lookout with Hudson. Highway 642 connects Sioux Lookout with Silver Dollar.

The Canadian National Railway has a line through the Study Area from east to west, through Savant Lake, Sioux Lookout, Hudson and on to Red Lake. The Canadian Pacific Railway extends through the southern portion of the study area through Ignace and Dryden. Five airports are located in the area, including Ignace Municipal Airport, Dryden Regional Airport, Sioux Lookout Airport, Pickle Lake Airport, and Slate Falls Airport.

6.2.3 Economic Environment

The Kenora District's economy is primarily comprised of businesses operating in the following industries: finance, insurance and real estate; sports and recreation, arts and culture; mining, construction and utilities; and retail trade (NTAB, 2015). Approximately 53% of businesses in the Kenora District area are owner-operated with no employees (NTAB, 2015). Most of the population of the Kenora District is concentrated in the southern portions and in the cities and towns along Highway 17, where some agriculture is practiced. The major economic activities in the middle and northern portions are mineral extraction, forestry and tourism. Throughout the Study Area, tourism-related facilities and uses including lodges, motels, and campgrounds are present. Gold mines such as Musselwhite Mine and Red Lake Mine currently operate directly outside of the Study Area. Large-scale, new mining exploration projects have potential to proceed in the Ring of Fire area located northeast of Pickle Lake where significant reserves of chromite, copper, gold, nickel, palladium, platinum and vanadium are believed to exist. The EA will identify and evaluate potential effects on the economic environment through detailed studies such as a socio-economic study and a tourism impact study, where appropriate.

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6.2.4 Built Environment

The Study Area is located within Northern Ontario, where an abundance of land use is Crown land. The majority of the primary land use within the Study Area is designated as General Use Area (MNR 2014). General Use Area designation is the most flexible designation, having few provincial-level policies and may permit various resource and recreation uses. There are also a few small areas throughout the Study Area designated under Crown Land as Conservation Reserve, Provincial Park and Indian Reserve. The area-specific Crown land use policy provides specific direction for the management of lands within this designation (MNR 2014). Built features, such as tourism facilities, will be identified through using LIO and other databases, as appropriate, and described in further detail during the EA.

The northern portion of the Study Area is located within the area covered by the *Far North Act (2010)*. **Figure 1** shows the boundaries of the *Far North Act* in relation to the Study Area. The *Far North Act* identifies the following objectives for land use planning in the Far North:

- A significant role for First Nations in the planning;
- The protection of areas of cultural value in the Far North and the protection of ecological systems in the Far North by including at least 225,000 square kilometres of the Far North in an interconnected network of protected areas designated in community based land use plans;
- The maintenance of biological diversity, ecological processes and ecological functions, including the storage and sequestration of carbon in the Far North; and,
- Enabling sustainable economic development that benefits the First Nations. 2010, c. 18, s. 5.

In accordance with the *Far North Act*, if it is determined that the Undertaking is to be located within an area covered by a completed Community Based Land Use Plan(s), the Undertaking would be required to conform to the applicable policies. Should the Undertaking be located within an area under the *Far North Act* where a completed Community Base Land Use Plan is not in effect, the Undertaking would be required to be consistent with the objectives set out under the *Far North Act*. Further detail regarding the implications of the *Far North Act* and any Community Based Land Use Plans on the Undertaking will be described in the EA.

6.2.5 Cultural Environment

The EA will identify and evaluate potential effects on cultural heritage resources (which include archaeological resources, built heritage resources and cultural heritage landscapes) through more detailed cultural heritage studies, traditional knowledge studies, and archaeological assessments including a background Stage 1 Archaeological Assessment and any required Stage 2, 3 or 4 archaeological assessments. Sagatay will engage the appropriate agencies and consider the Ministry of Tourism and Culture (MTC)'s *Standards and Guidelines for Conservation*

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of *Provincial Heritage Properties* (2010) as appropriate when identifying and evaluating potential effects on provincial heritage properties.

6.3 POTENTIAL EFFECTS

Potential effects and mitigation measures will be evaluated within the EA document. A listing of preliminary potential interactions between key components and the environment are provided in **Table 6.5**.

A cumulative environmental effects assessment will be conducted as part of the EA. A cumulative effects assessment is an evaluation process that focuses on the environmental effects that are based on predicted residual environmental effects that are likely to overlap spatially and temporally with those of other past, present, or reasonably foreseeable future projects or activities that have been or will be carried out. The assessment will be limited to the environmental effects of the Undertaking that could reasonably contribute to the overall quality or sustainability of an aspect of the environment. Defining the parameters and clearly outlining the methodology for assessing cumulative environmental effects will be undertaken during the EA process. Spatial and temporal boundaries may vary between each component assessed. These boundaries will be clearly identified and justified through the EA process.

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Table 6.5: Potential Effects Associated with the Undertaking

Environmental Criteria	Natural Environment															Social Environment		Economic Environment			Cultural Environment		Built Environment		
	Atmospheric Environment			Hydrology		Aquatic Environment			Hydrogeology			Terrestrial Environment				Extreme Weather and/or Events	Social Environment		Economic Environment			Cultural Environment		Built Environment	
	Climate Change	Air Quality	Noise	Surface Water Flow	Surface Water Quality	Fish and Fish Habitat	Sediment	Benthic	Groundwater Flow	Groundwater Quality	Bedrock Geology	Vegetation Communities	Soils	Wildlife	SAR and SAR Habitat		Community Infrastructure and Services	Health	Economy, Employment and Business	Economic Feasibility	Available Technology	Archaeology / Cultural Heritage	Traditional Land Use	Land Use	Recreation
Key Components of the Undertaking																									
Interconnection Junction Facility and HONI switching station	C, O	C	C, O	C, R	C, O, R	C, O, R			C, O, R		C, O, R	C, O	C, R	C, O, R	O	C, O	C, O	C, O, R	C, O		C	C, O, R	C, R	C, O, R	
Transmission Line	C	C,	C, O	C, R	C, O, R	C, O, R	C, O, R		C, R		C, O, R	C, O	C, O, R	C, O, R	O	C, O	C, O	C, O, R	C, O		C, O, R	C, O, R	C, R	C, O, R	
Pickle Lake Transformer Station and HONI Switching Station	C	C, O	C, O	C, R	C, O, R	C, O, R			C, O, R		C, O, R	C, O	C, R	C, O, R	O	C, O	C, O	C, O, R	C, O		C	C, O, R	C, R	C, O, R	

- Potential Interaction with the Undertaking during Construction
- Potential Interaction with the Undertaking during Operation
- Potential Interaction with the Undertaking during Retirement

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7.0 ASSESSMENT AND EVALUATION

This section of the ToR details how each of the major components of the EA will be addressed, in accordance with Section 6.1(2) of the *Act*. Although this section provides an overview, the specific evaluation methodology details will be identified as part of the EA. Consultation with the public, stakeholders, agencies, and Aboriginal communities will be considered when refining the methodology that will ultimately be used in the EA.

7.1 ALTERNATIVES TO THE UNDERTAKING

As described in Section 5 of the ToR, in accordance with the requirements of Section 6.1(2)(b) of the EAA, the EA will include a description of, and a statement of, the rationale following the evaluation of the “alternatives to” the proposed Undertaking, which will consist of:

1. Do nothing; and,
2. Electrical transmission.

During the EA, a series of criteria will be presented to comparatively evaluate the merits of each of these alternatives.

The “alternative methods” for carrying out the Undertaking will be developed and evaluated within the EA following the determination of the preferred “alternative to”.

7.2 ALTERNATIVE METHODS FOR CARRYING OUT THE UNDERTAKING

The EA will evaluate a reasonable range of “alternative methods” as described in Section 5.0 of the ToR. Opportunities to provide input on the development of criteria and indicators for the alternatives evaluation will be provided to interested parties, including Aboriginal communities. Traditional knowledge provided from Aboriginal communities will be considered, where appropriate, during the development of criteria and indicators.

The “alternative methods” of carrying out the Undertaking, will be evaluated in the EA in accordance with the requirements of Section 6.1(2)(c) and (d) of the EAA. A comparative methodology will be applied at a sufficient level of detail to identify advantages and disadvantages of each “alternative method”.

The evaluation of the “alternative methods” of the Undertaking will generally involve, but may not be limited to, the following steps:

1. Prepare a description of criteria that will be used to identify a reasonable range of “alternative methods” (e.g., potential routes and/or sites);

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2. Describe the rationale for the identified "alternative methods";
3. Pre-screen the range of "alternative methods" based on high level review of impacts to the environment (i.e., natural, social, economic, cultural heritage resources) to identify those feasible "alternative methods" that will be carried forward for further evaluation;
4. Prepare a description of the environment potentially affected for each of the remaining feasible "alternative methods";
5. Develop criteria in the EA to comparatively evaluate the feasible "alternative methods";
6. Describe the net effects on the environment for each feasible "alternative method" relative to the other remaining alternatives, after application of reasonable mitigation methods;
7. Evaluate the advantages and disadvantages to the environment for each of the remaining feasible "alternative methods"; and
8. Identify and prepare a rationale for the preferred "alternative method" and Undertaking.

As listed in the steps above, the potential effects associated with each "alternative method" will be compared to establish the relative advantages and disadvantages of each option. Alternatives will be ranked under each criterion based on comparison with the other alternatives, ranging as follows:

- Major Advantage
- Advantage
- Neutral
- Disadvantage
- Major Disadvantage

The "alternative method" that best meets the objective of the criterion will be identified as having a major advantage and the option that least meets the objective of the criterion would have a major disadvantage. It is not intended that specific ranges would be predetermined for the ranking; instead they will be developed based on a comparison between the potential "alternative methods". For this study, a qualitative evaluation methodology will be applied that uses professional judgment of the Project team.

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The rankings will be recorded in a summary table and overall rankings for each of the five rankings of criteria will be established based on the advantages and disadvantages of the “alternative methods”. The preferred “alternative method” will be the one with the preferred balance of advantages and disadvantages. This decision will be based on the professional judgment exercised by the Project team.

The evaluation process will be clear, logical and transparent, allowing EA viewers to understand the evaluation process and the basis for the conclusions

7.3 CRITERIA AND INDICATORS

Preliminary assessment criteria have been developed for evaluating the “alternative methods”. Both negative and positive impacts will be assessed for each “alternative method”. Details on the preliminary assessment criteria and an example of the indicators to be used in the EA are provided below in **Table 7.1**. The information provided in **Table 7.1** is considered preliminary and the criteria and/or example indicators will be further refined in the EA.

Table 7.1: Example Assessment Criteria and Indicators

Example Assessment Criteria	Example Indicators	Study(ies) to Address
NATURAL ENVIRONMENT		
Effect on Noise Levels	Ambient noise levels	Atmospheric Environment <ul style="list-style-type: none"> • Noise; and • Vibration.
Effect on Surface Water Quality and Quantity	Surface water levels and flows of water bodies	Surface Water Quality / Hydrology
	Water chemistry	
Effect on Groundwater Quality and Quantity	Groundwater levels and chemistry	Groundwater Quality / Hydrogeology
Effect on Terrestrial Species and Habitat	Area of wildlife habitat loss or alteration (ha)	Vegetation and Wetlands / Wildlife and Wildlife Habitat
Effect on Fish and Fish Habitat	Fish habitat quantity (area calculations of habitat function impairment or loss: total and/or specific habitat type)	Aquatic Resources: <ul style="list-style-type: none"> • fish and fish habitat

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Table 7.1: Example Assessment Criteria and Indicators

Example Assessment Criteria	Example Indicators	Study(ies) to Address
SOCIAL ENVIRONMENT		
Effect on Capacity of Community Services and Infrastructure	Capacity of housing, accommodations and building lot availability	Socio-Economic
ECONOMIC ENVIRONMENT		
Effect on Economy, Employment and Business	Employment generated from the Undertaking	Socio-Economic Tourism impact study
Effect on Economic Feasibility	Capital, operating and maintenance costs	Feasibility Study
Available Technology	Commonly used technology in similar applications	Feasibility Study
CULTURAL ENVIRONMENT		
Effect on Cultural Activities	Change in access to cultural heritage resources and/or areas used for cultural activities	Land and Resource Use Traditional Knowledge Study
Effect on Land and Resource Use	Temporal avoidance of traditional practices	Tourism impact study
Effect on Areas of Archaeological Potential and Archaeological Resources	Presence of an area of archaeological potential and/or archaeological resource	Historical / Cultural Resources: <ul style="list-style-type: none"> • Stage 1 and 2 Archaeological Reports, • Cultural Heritage Report; and • Traditional Knowledge Study.
Effect on Cultural Heritage Resources, including Archaeological Resources, Built Heritage Resources and Cultural Heritage Landscapes	Modification to a cultural heritage resource, including archaeological resources, built heritage resources and/or cultural heritage landscapes	
BUILT ENVIRONMENT		
Effect on Commercial and Industrial Land Use, and Land Use Planning	Conflict with land use planning areas and zones (ha)	Socio-Economic: <ul style="list-style-type: none"> • Land and Resource Use; and • Community Services and Infrastructure.
Effect on Trapping, Guide Outfitting, and Recreational Land Use	Area (ha) of current recreational use (e.g., fishing, hunting, hiking) that would be restricted	

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In addition to the baseline studies identified in **Table 7.1**, a number of data sources will be used to gather information. Data sources may include, but are not limited to, the following:

- previous studies conducted and available for the vicinity of the Undertaking;
- specific engineering and technical reports for the Undertaking (i.e., baseline studies and technical data reports);
- communication, discussion, and engagement with the public, stakeholders, agencies, and Aboriginal communities; and
- published data sources (e.g., MOECC, MNRF, Canadian Wildlife Service, and Committee on the Status of Endangered Wildlife in Canada, Committee on the Status of Species at Risk in Ontario, Statistics Canada).

7.4 EVALUATION OF THE UNDERTAKING

In accordance with Section 6.1(2)(c) of the EAA, the EA will include an evaluation of the Undertaking. This will include a description of:

- (i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
- (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment,
- (iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment, and
- (iv) an evaluation of the advantages and disadvantages to the environment of the Undertaking.

The evaluation of the proposed Undertaking will include:

1. a conceptual design and operating description for the Undertaking, incorporating a range of mitigation measures;
2. a description of the environment potentially affected by the Undertaking;
3. an evaluation of the environmental effects of the Undertaking using the criteria and studies referred to in **Table 7.1** above;
4. an evaluation of any additional actions that may be necessary to prevent, change or mitigate environmental effects;

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5. a description and evaluation of the environmental advantages and disadvantages of the Undertaking, based on the net environmental effects after mitigation;
6. A description of potential cumulative effects associated with the Undertaking;
and
7. monitoring, contingency and impact management plans to remedy the environmental effects of the Undertaking.

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8.0 COMMITMENTS AND MONITORING

The following sections provide an overview of commitment tracking and follow up monitoring that will be identified in the EA.

8.1 COMMITMENTS MADE DURING THE EA

The EA will include a list of commitments made by Sagatay during preparation of the supporting studies and during the development of the Terms of Reference and EA. A concordance table, identifying each commitment and indicating where it is noted in the EA, will be included in the EA. This will include key commitments relating to:

- impact management measures, such as mitigation measures;
- additional works and studies to be carried out;
- management plans;
- monitoring;
- public and Aboriginal consultation;
- contingency planning; and
- documentation and correspondence.

8.2 MONITORING

The EA will also include the identification of a monitoring framework. The monitoring framework will include monitoring related to both compliance monitoring and effects monitoring during all phases of the Undertaking (i.e., construction, operation, and retirement (decommissioning)). As appropriate, monitoring will follow applicable agency guidance.

Compliance monitoring is an assessment of whether the Undertaking has been constructed, implemented and/or operated in accordance with the commitments made in the EA and the conditions of the subsequent EAA approval. A timeframe for when commitments will be fulfilled, and how compliance will be reported to the relevant provincial and federal agencies will be presented within the EA.

Effects monitoring consists of monitoring carried out after completion of the EA to verify the key environmental effects predictions of the Undertaking. The monitoring schedule will be put in place during the design, construction and operation, and retirement (closure/post-closure) phases of the Undertaking. The purpose of the monitoring plan will be to ensure that the key effects identified during the EA are monitored appropriately. A contingency plan will be outlined in the EA and will be refined as appropriate.

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9.0 CONSULTATION

Sagatay recognizes the importance of consultation and engagement with stakeholders (community members, agencies, interested parties) and Aboriginal groups as an integral aspect of the Pickle Lake Transmission Project (the Undertaking). Active participation through consultation ensures an open and fair process, and strengthens the quality and credibility of results.

In keeping with Section 5.1 of the EAA, the MOECC's *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (MOE 2014), identifies consultation with interested stakeholders as mandatory during the preparation of an environmental assessment. This code also states: "the terms of reference shall include a plan that outlines consultation activities that, at a minimum, will take place during the preparation of the environmental assessment", a Consultation Plan has been prepared to fulfil this requirement and is provided within this section. The Consultation Plan has also been designed to align with the Canadian Environmental Assessment Act (CEAA 2012) as Sagatay will ensure that opportunities are provided for meaningful public participation. The general principles and activities associated with this Consultation Plan are outlined throughout this section.

Further, the MOECC's *Code of Practice: Consultation in Ontario's Environmental Assessment Process* (MOE, 2014) provides guidance as to the expectations concerning appropriate consultation. The approach to consultation used during the ToR process and also for planned consultation with respect to the provincial EA that will be prepared for this Project will adhere to these guidelines.

9.1 CONSULTATION PURPOSE AND GOALS

The purpose of consultation and engagement in the Environmental Assessment (EA) process is to allow Sagatay and the Project team to identify and consider concerns and issues and to provide stakeholders and Aboriginal groups with an opportunity to receive information about and make meaningful input into the review and development of the Undertaking. The overall EA study process must take consultation into consideration and demonstrate how input was addressed. Stakeholder and Aboriginal engagement will continue throughout the EA process in an open and transparent manner. Consultation and engagement will be proactive, flexible, and based on a goal of continuous improvement, particularly as Aboriginal groups and the community identify how they prefer to be involved. This will build on Sagatay's existing relationships, and will ensure that participants are engaged in dialogue about the current environment, project activities, potential effects, and management measures.

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Through the consultation process, Sagatay will:

- Provide information about the Undertaking to the public;
- identify those who may be affected or have an interest in the Undertaking;
- ensure all agencies, Aboriginal groups, interest groups, and members of the public are notified early in the EA process;
- welcome all input from the community, Aboriginal groups, agencies, and other stakeholders;
- consider all input equally, regardless of source, intention, or viability;
- use input, where applicable, to focus the baseline studies, scope the EA, and ultimately influence design;
- document, transparently, what input was received, how the Project team responded, and how the input was used by the team. If input could not influence the study or the design, the rationale will be documented; and
- Sagatay's goal is to create opportunities to develop commitments in response to local input, focusing on (and addressing) real public concerns, rather than regulatory procedures and administration (as stated in the MOECC's *Code of Practice: Consultation in Ontario's Environmental Assessment Process* (MOE 2014), Section 9.3).

Key strategies to achieve successful engagement include:

- understanding the needs and capabilities of the community, and tailoring consultation accordingly;
- identifying key stakeholders and community leaders in the early stages of the Project;
- developing goals and objectives of consultation with the community and regularly seeking feedback on the consultation approach;
- being open and transparent;
- providing clear, concise and relevant information; and
- engaging parties at key decision milestones, and providing appropriate review and comment periods on EA documents and materials.

The MOECC's *Code of Practice: Consultation in Ontario's Environmental Assessment Process* (MOE 2014) dictates that the consultation plan must:

- Indicate how potentially interested and affected persons, including Aboriginal peoples, will be identified, notified and consulted;
- Indicate how government agencies will be identified, notified, and consulted;

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- Identify the points in the EA process when interested persons will be consulted;
- Identify the methods that will be used to consult;
- Identify the decisions that interested persons can provide input to and what role they can play when the proponent makes choices; and
- Acknowledge the need to address concerns raised during the EA process (i.e. an issues resolution process).

9.2 GENERAL CONSULTATION PLAN FOR THE EA

Sagatay intends to continue to engage a wide range of stakeholders and Aboriginal communities to gather feedback on the Undertaking, baseline studies, the EA methodology and findings, alternative methods, potential effects, and appropriate effects management measures before submission of the EA for government review as described in **Figure 4 (Appendix A)**. Submission of a draft EA for stakeholder and Aboriginal review will allow Sagatay to receive feedback and identify any outstanding issues or concerns that need to be addressed and should be resolved before the submission of the final EA to the government agencies for review.

Consultation objectives are to:

- ensure stakeholders and Aboriginal groups have an appropriate opportunity to understand the proposed Undertaking, and identify potential environmental effects;
- review and gather feedback on the following:
 - results of baseline or other studies;
 - alternative methods and evaluation methods;
 - final selection of criteria and indicators;
 - potential environmental effects and mitigation measures;
 - proposed monitoring and management plans;
 - results of the selection of the preferred alternative methods; and
 - retirement (decommissioning).
- demonstrate and discuss how comments submitted previously were addressed through Project design or management practices to help to reduce or avoid any potential environmental effects;
- provide an explanation of why the proposed Undertaking cannot be modified to reduce or avoid the effects, if applicable;
- discuss appropriate ways that residual effects could be managed;

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- document and respond to any issues or concerns raised by stakeholders; and
- meet all regulatory requirements for stakeholder consultation.

9.2.1 Stakeholder Identification

Sagatay intends to continue consultation through the EA process with a wide range of interests and stakeholders, including:

- Property owners in the immediate vicinity of the Project site;
- Residents of the City of Dryden, Municipality of Sioux Lookout, Township of Ignace and Township of Pickle Lake, including self-identified members of the public;
- Non-government organizations and groups with interest in the Undertaking;
- Local users of the land, including hunters, trappers, and fishermen;
- Agencies with an interest in the Undertaking, including the Government Review Team (**Table 9.1**); and
- Municipal representatives (**Table 9.1**).

Table 9.1: Government Stakeholders

Federal Government
Aboriginal Affairs and Northern Development Canada Canadian Environmental Assessment Agency CN Rail Department of Fisheries and Oceans Canada Environment Canada Transport Canada
Provincial Government
Hydro One Networks Inc. Infrastructure Ontario Ministry of Aboriginal Affairs Ministry of Community Safety and Correctional Services Ministry of Economic Development, Employment and Infrastructure Ministry of Energy Ministry of Municipal Affairs and Housing Ministry of Natural Resources and Forestry Ministry of the Environment and Climate Change Ministry of Tourism, Culture and Sport Ontario Power Generation

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Table 9.1: Government Stakeholders

Local Government
City of Dryden Municipality of Sioux Lookout Township of Pickle Lake Township of Ignace

In addition, Sagatay has focused on engaging the seven Aboriginal communities identified below based on consultation undertaken with the Ontario Provincial Government:

- Mishkeegogamang First Nation;
- Ojibway Nation of Saugeen;
- Wabigoon Lake Ojibway Nation;
- Lac Seul First Nation;
- Slate Falls First Nation;
- Eagle Lake First Nation; and
- Northwest Métis Council.

Sagatay will continue to engage with these communities as well as additional communities throughout the EA process.

9.2.2 Key Communication Tools

The following key communication tools will be utilized throughout the EA process:

- Project notices published in local newspapers;
- direct mailings to communities;
- Public Open Houses and Aboriginal community meetings;
- Public Open House comment forms;
- Project website (www.sagatay.com);
- targeted e-mails (as applicable);
- one-on-one meetings, presentations, e-mails and phone conversations with stakeholders; and
- newsletters and/or Frequently Asked Questions.

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9.2.3 Communications Tracking

A Consultation Log/Stakeholder Database will be used to document the communications and responses and adequately answer the inquiry.

Information collected will include:

- time and date of inquiry;
- method of inquiry (for example via email, regular mail, telephone call, website, etc.);
- name of person making inquiry;
- name of person receiving inquiry;
- nature of issue, concern or comment;
- Project team response; and
- follow-up (if required).

9.2.4 Public and Agency Consultation

Sagatay initiated consultation with interested members of the public and agencies during the development of the draft ToR in 2012. Sagatay will continue to work with MOECC and the Government Review Team throughout the EA. The following on-going activities are anticipated:

- *Contact lists* – Sagatay has created a contact list of participating agencies and stakeholders. This list will be maintained throughout the duration of the Undertaking.
- *Issues Scoping Meetings* – Sagatay will attend ongoing meetings with agencies and stakeholders throughout the development of the Undertaking.
- *Public Open Houses and Workshops* – Open Houses and workshops will be held in the local area throughout the ToR and EA process, as appropriate.
- *Government Review Team* – Sagatay will be working with provincial and federal ministries as part of the Government Review Team (GRT). Meetings with the GRT will be held at key milestones in the EA process. Sagatay anticipates that environmental working groups will be established as the Project progresses (such as water, fisheries, or terrestrial).
- *Notices* – Sagatay will publish Notices associated with the Open Houses and EA process (i.e. commencement, submission, completion, decision) in local newspapers and provide by mail (or by email if that is the only contact information provided) to stakeholders.
- *Circulation of Draft Documents (environmental baseline reports and EA)* – Sagatay will circulate copies of draft documents for review and comment to agencies and select stakeholders if requested. Sagatay will review and gather feedback on the results of baseline

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studies, evaluation and selection of alternative methods, potential environmental effects and mitigation measures, and closure planning.

- *Plain Language Summaries* – Sagatay will circulate plain language summaries of technical documents (as appropriate) in order to ensure that feedback can be received by non-technical reviewers.
- *General Meetings/Presentations* – Sagatay will continue to undertake face-to-face meetings/presentations with stakeholders as appropriate, through the EA and planning process, and ultimately construction and operation of the Undertaking.
- *Newsletter* – Sagatay will develop Project Newsletters at key EA milestones, to be circulated electronically and made available on the Project website.
- *Project Website* – Sagatay will continue to maintain a Project website throughout the duration of the Undertaking.
- *Community Liaison Committee* – Sagatay will consider establishing a Community Liaison Committee to exchange information throughout the EA process and during construction, as necessary. Interested members of the public, municipalities, and Aboriginal communities would be invited to participate in the Community Liaison Committee and observe the meetings.

9.2.5 Aboriginal Engagement

The intent of the Consultation Plan is to establish a framework and provide a process for meaningful engagement with Aboriginal communities throughout the duration of the Undertaking.

Sagatay recognizes that Aboriginal communities have rights and deserve respect, and this strategy guides collaboration with adjacent communities. Furthermore, it recognizes that working proactively with communities is integral to a viable future.

Effective and meaningful communication/engagement requires building trust between the Project team and Aboriginal communities, enhancing awareness of the Undertaking, and providing flexible engagement opportunities, issues resolution and feedback.

Key strategies to achieve successful engagement include:

- understanding the communications needs, capabilities and resources of the community;
- identifying key community working contacts;
- involving Aboriginal groups early in the planning phase;
- tracking consultation and engagement activities using the Consultation Log/Database;

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- being respectful, open and transparent;
- providing clear, concise and relevant information;
- focusing timing of engagement activities at key decision milestones, and in respect of seasonal commitments of community members;
- demonstrating how ideas/issues/concerns from previous consultations have or will be considered;
- providing flexible communication tools to provide information and collect feedback;
- evaluating and improving the engagement program at key milestones to review applicability and success; and
- adapting to the changing needs of communities.

The objectives of Sagatay's commitment to Aboriginal engagement are to:

- be proactive and transparent in its engagement with communities;
- build community engagement and capacity by developing and implementing activities that will support social infrastructure, provide opportunities for employment and training, and create long term and sustainable benefits;
- contribute to the regional economy through developing and supporting regional infrastructure and businesses;
- contribute to local environmental sustainability and improvement; and
- contribute to developing community programs through appropriate participation and support.

Sagatay intends to reach out to Aboriginal groups as follows:

- *Contact lists* – Sagatay has created a contact list of all participating Aboriginal groups (**Appendix B**), which will be maintained throughout the duration of the Undertaking.
- *Issues Scoping Meetings* – Sagatay will continue to engage and communicate with Aboriginal communities throughout the development of the Undertaking.
- *Engagement in Environmental Baseline Studies* – Sagatay will engage Environmental Stakeholder Monitors to supplement field teams in collecting environmental baseline information. The Environmental Stakeholder Monitor acts as the community's eyes and ears on-site to ensure traditional interests are protected. The Environmental Monitor solicits and recruits community participation in engagement activities in a manner that supports the needs of the community. A key role of the Environmental Stakeholder Monitor is to communicate environmental findings to community leadership for consideration on

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mitigation/support decisions. Sagatay will continue engagement throughout the EA process as appropriate.

- *Community Meetings/Open Houses* – Sagatay will endeavour to host meetings in each First Nations community, as appropriate. Sagatay has held a preliminary round of Community meetings with Ojibway Nation of the Saugeen (Savant Lake) (June 2, 2015) and Mishkeegogamang First Nation (July 15, 2015) at Pickle Lake and Ignace for stakeholders (June, 2014) as part of the Leave to Construct (LTC) process.
- *Notices* – Sagatay will publish Notices associated with the Open Houses and EA process (i.e. commencement, submission, completion, decision) in local newspapers and on the Project website, and will provide Notices by mail to stakeholders and Aboriginal communities.
- *Circulation of Draft Documents (environmental baseline reports and EA)* – Sagatay will circulate copies of draft documents for review and comment. Where possible, these documents will be provided to Aboriginal groups prior to public release. Sagatay will work with communities to determine appropriate timelines. Sagatay will review and gather feedback on results of baseline studies, evaluation and selection of alternatives, potential effects and mitigation measures and closure planning.
- *Plain Language Summaries and Translated Documents*– Sagatay will circulate plain language summaries and translated versions of technical documents (as appropriate) in order to ensure that feedback can be received by non-technical reviewers and understood by all parties.
- *General Meetings/Presentations* – Sagatay will undertake face-to-face meetings/presentations with communities and/or Chief and Council, as appropriate, through the EA process and ultimately construction and operation of the Undertaking.
- *Newsletter* – Sagatay will develop Project Newsletters at key milestones, to be circulated electronically and made available on the Project website.
- *Project Website* – Sagatay will continue to maintain a Project website throughout the duration of the Undertaking.
- *Community Liaison Committee* – Sagatay will consider establishing a Community Liaison Committee to exchange information throughout the EA process and during construction, as necessary. Interested members of the public, municipalities, and Aboriginal communities would be invited to participate in the Community Liaison Committee and observe the meetings.

9.3 PROJECT NOTIFICATION

Sagatay will advertise the following Notices in local newspapers (general distribution and Aboriginal newsletters where available) and on the Project website:

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- Notice of Commencement;
- Notices of Public Open Houses and Community Meetings, if appropriate;
- Notices of Submission;
- Notice of Completion of EA Review; and
- Notice of Minister's Decision.

These notices will also be given to local municipalities (including elected officials), potentially affected Aboriginal communities, and all those who have expressed an interest in the Undertaking (and are on the contact list). As a minimum, all notices will be published and/or posted in the same locations for consistency, unless it is determined that the locations are not appropriate. There may be additional notifications from the government agencies outside of those listed above.

9.4 ISSUES RESOLUTION

Issues may arise that require resolution prior to moving from one step of the evaluation to another or prior to the issuance of approvals. It is the preference of Sagatay to resolve issues as they occur. However, some issues may require the use of a facilitator to negotiate/mediate a resolution. A conflict resolution process will be developed in the early stages of the EA. This process will be applied when appropriate to resolve conflicts during the EA.

9.5 FLEXIBILITY TO ACCOMMODATE NEW CIRCUMSTANCES

The consultation and engagement approach and activities provided in Sagatay's Consultation Plan are preliminary and will be updated throughout the EA. During the course of implementing the work proposed in the Consultation Plan, Sagatay may determine that adjustments to the approaches and methodologies described herein are necessary and/or appropriate. Adjustments may include, but are not limited to:

- provision and/or identification of additional information requirements;
- technical studies or consultation methods/events to address concerns expressed by the public as EA results become available; or
- adjustments to the sequence of the EA process that may be required depending on EA results and circumstances.

Sagatay is committed to ongoing consultation with interested persons as the Undertaking progresses through construction, operation, and decommissioning/closure. Sagatay will continue to develop its Consultation Plan based on evaluation of and in response to expressed interests.

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In recognition of the evolutionary nature of the Consultation Plan, changes may be made to the process described in this document, as required. The following steps will be taken to ensure appropriate tracking of communications and dissemination of information to the Project team:

- All Project communications from stakeholders and Aboriginal communities will be tracked for response by the Project team, and to ensure all concerns raised are addressed and considered in preparation of the EA documentation.
- Information collected will include:
 - time and date of inquiry;
 - method of inquiry (for example via email, regular mail, telephone call, website, etc.);
 - name of person making inquiry;
 - name of person receiving inquiry;
 - nature of issue, concern or comment;
 - Project team response; and
 - follow-up (if required).
- The Project contact list will be reviewed throughout the process, and updated as new individuals or groups express interest in the Undertaking.

All interested parties are welcome to provide information, comments, and/or feedback at any point in the project planning, construction, operations, and/or decommissioning stages.

Sagatay will endeavour to address all comments and concerns raised, and will demonstrate how these were considered in the Record of Consultation documentation.

9.6 KEY EA MILESTONES

A list of key decision-making milestones for consultation activities is provided in **Table 9.2** below.

Table 9.2: Key EA Milestones

Consultation and Engagement Activities	Technical Activities
DRAFT EA	
<ul style="list-style-type: none"> • Notice of Commencement of an EA • Project Update Newsletter • Public Open Houses • Aboriginal Community Meetings • Government Review Team Meeting • Municipal Meeting 	<ul style="list-style-type: none"> • Initiate EA • Continuation of EA planning and Project design • Review of design, results of studies to date, alternative methods evaluation, potential effects and mitigation measures

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Table 9.2: Key EA Milestones

Consultation and Engagement Activities	Technical Activities
<ul style="list-style-type: none"> • Interest Group meetings, if required 	
<ul style="list-style-type: none"> • Notice of Draft EA Review Period • Project Update Newsletter • Public Open Houses • Aboriginal Community Meetings • Government Review Team Meeting • Municipal Meeting • Interest Group meetings, if required 	<ul style="list-style-type: none"> • Draft EA document available for review • Incorporate public, agency and Aboriginal comments into EA, as appropriate
FINAL EA	
<ul style="list-style-type: none"> • Notice of Submission of EA to MOECC • Project Update Newsletter • Notice of Completion of EA Review • Notice of Minister's Decision 	<ul style="list-style-type: none"> • Submit final EA to MOECC

9.7 CONSULTATION AND ENGAGEMENT ON THE DRAFT TERMS OF REFERENCE

This section provides the rationale, process and outcome for the consultation process implemented during the ToR. Consultation on the ToR centered on key ToR milestones as provided in **Table 9.3**.

Table 9.3: Key ToR Milestones

Consultation and Engagement Activities	Technical Activities
TOR	
<ul style="list-style-type: none"> • Notice of Commencement of ToR • Public Open Houses • Aboriginal Community Meetings • Notice of Submission of draft ToR 	<ul style="list-style-type: none"> • Initiate ToR • EA planning and Project design • Draft ToR available for review • Incorporate public, agency and Aboriginal comments into ToR, as appropriate

Sagatay has developed a Record of Consultation for the ToR which provides further details on consultation activities and outcomes. The Record of Consultation (RoC) in accordance with Section 5.3.1 of the MOECC's *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (MOE 2014) includes:

- Identification of all persons consulted during the ToR preparation (personal names not required) and how they were identified;

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- Description of the consultation activities which took place (methods, schedule of events, notification that was given about the activity and materials used);
- Description of how interested Aboriginal communities were identified and how they were consulted;
- A summary of comments made by all interested persons during the preparation of the ToR (those from the Public Open Houses were provided by Sagatay);
- Description of the proponent's response and how concerns were considered in the development of the ToR;
- Description of any outstanding concerns;
- Minutes of any meetings held with interested persons;
- Copies of written comments received from interested persons; and,
- A summary of the comments received and responses to those comments in a table.

9.7.1 Engagement Activities Completed During the ToR

From the initial stages of the Project, consultation with stakeholders and Aboriginal communities has been a strong focus for Sagatay. This section provides a summary of consultation activities undertaken by Sagatay in association with the ToR. A more detailed record of the engagement activities, materials, used and parties consulted with throughout the ToR process is provided in the RoC.

Consultation with various stakeholders and Aboriginal communities regarding the ToR took place between November 2012 and December 2015. Throughout the ToR process, Sagatay has followed the best-practices identified by the Project team as well as the MOECC's *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (MOE 2014) when consulting with all interested and affected parties. An overview of the activities used to consult with interested and affected parties during the ToR process is below.

9.7.1.1 Project Notification

Sagatay initiated the formal consultation process for the ToR by publishing the Notice of Commencement of Terms of Reference in local newspapers on October 31 and November 1, 2012, as detailed in **Table 9.4**. This notice contained information about the Project, ToR and EA process, as well as details on the reviewing locations and comment period for the draft ToR. Sagatay subsequently published a Notice of Open House Events and published the Notice in local newspapers on October 31, 2012, and November 1, 2012 for their December 2012 Open Houses. In addition, Sagatay distributed this Notice to Aboriginal communities on November 21, 2012 and November 29, 2012.

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More recently, Sagatay published an Invitation to Open Houses for the second round of Open Houses held in November 2015. The notice was published in local newspapers on October 21, 2015 and sent to agencies and Aboriginal communities on the contact list by mail and email on October 27, 2015. All Project notices published to date are summarized below in **Table 9.4**. Copies of these notices are provided in the Record of Consultation.

Table 9.4: Newspaper Publications of Project Notices

Notice	Newspaper	Publication Date
Notice of Commencement of Terms of Reference	Sioux Lookout Bulletin	October 31, 2012
	Thunder Bay Chronicle Journal	November 1, 2012
	Wataway News	November 1, 2012
Notice of Open House Events	Sioux Lookout Bulletin	November 28, 2012
	Ignace Driftwood	November 28, 2012
Invitation to Open Houses	Sioux Lookout Bulletin	October 21, 2015
	Ignace Driftwood	October 21, 2015
	Dryden Observer	October 21, 2015

9.7.1.2 Open Houses

Sagatay held a first round of Open Houses for the ToR process in Pickle Lake on December 4, 2012 and in Ignace on December 5, 2012. A second round of Open Houses for the draft ToR was held in Ignace, Dryden Sioux Lookout and Pickle Lake from November 16-19, 2015, as detailed in **Table 9.5**. Members of the Project team attended Open Houses and were available to provide information, answer questions and receive input on the Project.

Table 9.5: Open House Schedule, Attendance and Material (Second Round)

Community and Venue	Date and Time	Attendance	Information Presented and Made Available
Town of Ignace Silver Tops Seniors Centre	November 16, 2015 4:00 p.m. - 7: 00 p.m.	11	<ul style="list-style-type: none"> Information Panels Comment Forms Sign-in Sheet (option to be added to the Contact List)
City of Dryden Best Western Plus Dryden Hotel & Conference Centre	November 17, 2015 4:00 p.m. - 7: 00 p.m.	14	<ul style="list-style-type: none"> Information Panels Comment Forms Sign-in Sheet (option to be added to the Contact List)
*Township of Pickle Lake Pickle Lake Hotel	November 18, 2015 4:00 p.m. - 7: 00 p.m.	9	<ul style="list-style-type: none"> Information Panels Comment Forms Sign-in Sheet (option to be added

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Table 9.5: Open House Schedule, Attendance and Material (Second Round)

Community and Venue	Date and Time	Attendance	Information Presented and Made Available
			to the Contact List)
Municipality of Sioux Lookout Heritage Railway Station	November 19, 2015 4:00 p.m. - 7: 00 p.m.	4	<ul style="list-style-type: none"> • Information Panels • Comment Forms • Sign-in Sheet (option to be added to the Contact List)

*Note: The Open House for the Township of Pickle Lake was originally scheduled to be held at the Township of Pickle Lake Community Hall. A missing persons search was being conducted by local and provincial authorities and Mishkeegogmang First Nation which resulted in the Hall being unavailable, as had been planned, for the Open House on November 18, 2015. Sagatay relocated the Open House to the Pickle Lake Hotel, on the same date, and posted signage at the Community Hall to redirect attendees. The Pickle Lake Hotel is located directly across the road from the Community Hall and within walking distance.

Based on Comment Forms received and discussions had with the participants of the second round of Open Houses, concerns on:

- Engagement with Treaty 3 Aboriginal communities and Grand Council Treaty #3;
- Providing resources to Aboriginal communities to review the EA;
- Impacts on Treaty Rights (e.g. traplines, hunting and wild foods);
- Cost of power delivery to First Nation communities;
- Impacts on caribou, moose and Species at Risk (e.g. habitat fragmentation);
- Impacts on Sandbar Provincial Park and potential to route around the park;
- Impacts to property owners;
- Impacts to emergency planning (e.g. local emergency plans);
- Plans for the cleared timber;
- Potential to connect the transmission line to future mining operations;
- Concern regarding the adequacy of the proposed cumulative effects assessment process; and,
- EA process update (e.g. timelines).

Materials provided and feedback received during the Open Houses can be found in the RoC.

9.7.1.3 Project Website

A Project website (www.sagatay.com) was created in 2012 and has been maintained throughout the ToR process. The website provides information on the Project and Sagatay, and contains Project documentation such as notices and Open House materials. This site will be

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maintained throughout the approvals process, and during construction and operation, should the Project receive EA approval.

9.7.1.4 Meetings

Throughout the ToR process, Sagatay has participated in meetings with various stakeholders and Aboriginal communities, including Mishekeegogaming First Nation, the Ojibway Nation of Saugeen, Lac Des Mille Lacs First Nation, and the Métis Nation of Ontario Northwest Metis Council. These meetings have allowed Sagatay to focus on the issues and concerns of a particular stakeholder or Aboriginal community. A list of meetings to date and topics discussed is provided within the RoC.

9.7.1.5 Draft ToR Document Review

On October 31, 2012 a draft ToR was submitted to MOECC for review and made available for public review at various locations. The public review period for this draft ToR took place from November 1 to December 17, 2012. Comments received during this review period were reviewed and considered by Sagatay, and where appropriate, incorporated into the draft ToR. An amendment to the draft ToR was sent to MOECC on June 26, 2013 by Sagatay to incorporate caribou studies. Comments received on the draft ToR and responses from the Project team are provided in the RoC.

Overall, consultation during the ToR process has resulted in the following key comment areas:

- Potential impacts to sensitive natural features (i.e. Minnitaki Kames Provincial Nature Reserve);
- Potential impacts to Provincial Parks (i.e. Sandbar Provincial Park and Saint Raphael Provincial Park);
- Potential impacts to wildlife (i.e. migratory birds, moose, woodland caribou and other Species at Risk);
- Potential impacts to traditional land uses by Aboriginal communities;
- Potential socio-economic impacts to Aboriginal communities;
- Adequate consultation with all interested and affected Aboriginal communities;
- Consideration of Aboriginal consultation protocols;
- Potential impacts to mining claim holders;
- Potential impacts to cultural heritage resources (i.e. archaeological resources and cultural heritage landscapes);
- Potential impacts on local emergency planning;
- Potential impacts to tourism-related uses/activities;

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- Potential impacts to recreational uses/activities (i.e. key fisheries and hunting);
- Potential impacts to navigable waterways;
- Potential impacts to railways;
- Potential to connect the transmission line to future mining operations;
- Need for a comprehensive cumulative effects assessment; and
- Need for a detailed evaluation criteria for alternative corridors.

Sagatay remains committed to continuing engagement with interested and affected parties to ensure they are aware of and understand the Project, and are given opportunities to provide comments and raise concerns. Following ToR approval, Sagatay will implement their Consultation Plan which will guide engagement efforts and activities for the EA. Further concerns and comments expressed by stakeholders and Aboriginal communities during the EA process will be addressed in the EA report.

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10.0 PROVIDING FLEXIBILITY TO ACCOMMODATE NEW CIRCUMSTANCES

The description of the Undertaking provided in this ToR is preliminary and will be finalized during the EA. During the course of implementing the work proposed in this ToR, Sagatay may encounter new circumstances that may require adjustments to aspects of the Undertaking, including the description of the Undertaking, Study Area, consultation approaches, alternatives to be considered, studies to be carried out and evaluation criteria.

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11.0 OTHER APPROVALS REQUIRED

In addition to the EA requirements discussed in Section 2.0, various federal, provincial, and municipal permits, licenses and/or authorizations must be obtained prior to the development of the Undertaking. A preliminary list is provided below and will be finalized in the EA.

11.1 FEDERAL APPROVALS

Key federal permits and approvals potentially required for the Undertaking are listed in **Table 11.1**.

Table 11.1: Key Environmental Federal Permits / Approvals

Permits / Approvals	Activities associated with Undertaking
Site specific permit under the <i>Migratory Birds Convention Act</i> (EC)	<ul style="list-style-type: none"> If the Undertaking is anticipated to affect species listed under the Act, or its habitat.
Species at Risk Act Permit (DFO)	<ul style="list-style-type: none"> If the Undertaking is anticipated to kill, harm, harass, or require the capture or take of any endangered or threatened species protected under the Species at Risk Act.
Authorization under the <i>Fisheries Act</i> for Serious Harm to Fish (DFO)	<ul style="list-style-type: none"> If the Undertaking may result in serious harm to fish or fish habitat that are part of or support a commercial, recreational and Aboriginal fishery. Serious harm includes death of fish, and/or permanent alteration or destruction to fish habitat.
Authorization under the <i>Navigation Protection Act</i> (TC)	<ul style="list-style-type: none"> Works in or over navigable water, as defined in the Schedule of the Navigation Protection Act.
Aeronautical Obstruction Clearance for Height Hazards (TC)	<ul style="list-style-type: none"> Constructing the transmission line in the vicinity of an airport (e.g. the Pickle Lake airport).
Notice of Work (TC)	<ul style="list-style-type: none"> Construction affecting or intersecting federally regulated railway.
Hazardous Goods Transport (TC)	<ul style="list-style-type: none"> Transporting dangerous goods, as defined in the Transportation of Dangerous Goods Act (e.g. explosives, gases, flammable and combustible liquids and solids, oxidizing substances, toxic substances, nuclear substances, corrosives, and miscellaneous substances or products).
Land Use Submission (NAV CANADA)	<ul style="list-style-type: none"> Constructing the transmission line.
Notice of Construction (NAV CANADA)	<ul style="list-style-type: none"> As required by NAV CANADA for the construction of the transmission line.

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Table 11.1: Key Environmental Federal Permits / Approvals

Permits / Approvals	Activities associated with Undertaking
Authorization pursuant to Section 28(2) of the <i>Indian Act</i> (AANDC)	<ul style="list-style-type: none"> If the Undertaking is located on First Nations Reserve lands (e.g. Ojibway Nation of Saugeen reserve and New Osnaburgh 63A and 63B reserve lands).
Canadian Environmental Assessment Act, 2012 (CEAA)	<ul style="list-style-type: none"> If a portion of the transmission line falls within First Nation Reserve Lands, that portion of the Undertaking may be subject to Section 67 of CEAA.

11.2 PROVINCIAL APPROVALS

Key provincial permits and approvals potentially required for the Undertaking are listed in **Table 11.2**.

Table 11.2: Key Provincial Environmental Permits / Approvals

Permits / Approvals	Activities associated with the Undertaking
Work Permit (MNRF)	<ul style="list-style-type: none"> Activities on Public lands, including constructing buildings or structures (e.g. Transmission Tower), constructing water crossings (e.g. bridge, culvert, causeway), removing native aquatic vegetation on the Canadian Shield.
Forest Resource License (MNRF)	<ul style="list-style-type: none"> Cutting/using trees from Crown forests.
Work permit controls as per the <i>Forest Fires Prevention Act</i> (MNRF)	<ul style="list-style-type: none"> Clearing within 300 m of a forest or woodland
Fire Permit (MNRF)	<ul style="list-style-type: none"> Burning of materials from forest cutting/clearing.
Overall Benefit Permit (MNRF)	<ul style="list-style-type: none"> Affecting a listed species or its habitat pursuant to subsection 9(1) or 10(1) of the <i>Endangered Species Act</i>.
Consolidated Work Permit under the <i>Lakes and Rivers Improvement Act</i> (MNRF)	<ul style="list-style-type: none"> Constructing dams, water crossings (bridge, culvert or causeway), river channels, enclosures, buried pipelines and cables, and drains.
Licence to Collect Fish for Scientific Purposes (MNRF)	<ul style="list-style-type: none"> Capturing and transferring fish during in-water works.
Authorization under the <i>Fish and Wildlife Conservation Act</i> (MNRF)	<ul style="list-style-type: none"> If the Undertaking is anticipated to damage or destroy the nests or eggs of birds, a beaver dam, or the den of a black bear or some furbearing mammals, or interfere with a black bear in its den.

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Table 11.2: Key Provincial Environmental Permits / Approvals

Permits / Approvals	Activities associated with the Undertaking
Authorization to Conduct Research in Ontario Protected Areas (MNRF)	<ul style="list-style-type: none"> Conducting research within Provincial Parks (e.g. Sandbar Lake Provincial Park).
Authorization under the <i>Provincial Parks and Conservation Reserves Act</i> (MNRF)	<ul style="list-style-type: none"> Traversing a Provincial Park (e.g. Turtle River-White Otter Lake Provincial Park, Aaron Provincial Park, Lola Lake Provincial Nature Reserve, Adair Lake Conservation Reserve, Ojibway Provincial Park, Minnitaki Kames Provincial Nature Reserve, Wabakimi Provincial Park, St. Raphael Lake Provincial Park, Willow Lake Conservation Reserve, Albany River Provincial Park, Lac Seul Islands Conservation Reserve, Sandbar Lake Provincial Park, East English River Provincial Park and Upper English River Conservation Reserve).
Land Use Permit (MNRF)	<ul style="list-style-type: none"> Installing project infrastructure, including the transmission line, access roads (to and within the Project site) and for temporary laydown and/or spoil areas.
Approval(s) pursuant to the <i>Far North Act</i> (MNRF)	<ul style="list-style-type: none"> Construction of the Undertaking in Far North Ontario.
Aggregate Licence or Permit (MNRF)	<ul style="list-style-type: none"> Aggregate extraction on Crown land and private land designated in the regulations.
License of Occupation (MNRF)	<ul style="list-style-type: none"> Occupying Crown lands.
Minister's Order under the <i>Far North Act</i> (MNRF)	<ul style="list-style-type: none"> Development on lands within the <i>Far North Act</i> where there is no Community Based Land Use Plan.
Category C: Individual Environmental Assessment (MOECC)	<ul style="list-style-type: none"> Constructing a transmission line that is > 115 kV and < 500 kV and ≥ 50 km.
Permit to Take Water (MOECC)	<ul style="list-style-type: none"> Taking more than a total of 50,000 litres of water in a day (e.g. winter ice bridge construction over watercourses), diverting watercourses (e.g., dam and pump), and dewatering groundwater in excess of 50,000L/day.
Approval under the <i>Health Protection and Promotion Act</i> (MOECC)	<ul style="list-style-type: none"> Using potable water and on-site sewage treatment and disposal systems at temporary construction camp(s).
Approval under the <i>Environmental Protection Act</i> (MOECC)	<ul style="list-style-type: none"> Waste transportation and emissions produced by on-site equipment.
Industrial, Commercial and Institutional Source Separation Programs (MOECC)	<ul style="list-style-type: none"> Disposal of non-hazardous solid waste from industrial, commercial and institutional (IC&I) sources.

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Table 11.2: Key Provincial Environmental Permits / Approvals

Permits / Approvals	Activities associated with the Undertaking
Environmental Compliance Approvals (MOECC)	<ul style="list-style-type: none"> Releasing pollutants into the air, land or water, and storing, transporting or disposing of waste.
Generation Registration Number (MOECC)	<ul style="list-style-type: none"> Generation of hazardous and liquid industrial wastes during construction.
Permits under the <i>Pesticides Act</i>	<ul style="list-style-type: none"> Application of pesticides for vegetation management during the operation phase.
Archaeological Clearance (MTCs)	<ul style="list-style-type: none"> If the Undertaking is to be located on lands within or adjacent to areas of archaeological potential.
Building and Land Use Permit (MTO)	<ul style="list-style-type: none"> Undertaking the following works within the controlled area (as defined in the <i>Public Transportation and Highway Improvement Act</i>): <ul style="list-style-type: none"> the construction or alteration of a building, structure or road/entrance, changing the use of a property, building or structure, temporarily or permanently, the construction and/or paving of a parking lot, the installation of a well, septic system, retaining walls, landscaping (including a placement of tree, shrub and hedge), or illumination, erection of a fence or wall, placement, erection or alteration of any power line, pole line or other transmission line within 400m of controlled-access highway, grading of a property, moving a building or structure, and construction of utilities.
Encroachment Permits (MTO)	<ul style="list-style-type: none"> Work within, under or over a provincial highway right of way.
Commercial Entrance Permit (MTO)	<ul style="list-style-type: none"> Creating or altering an entrance to a provincial highway, including temporary entrances to facilitate development (e.g. access roads).
Special Vehicle Configuration Permit (MTO)	<ul style="list-style-type: none"> Transporting material that exceeds the load limits set out in the <i>Highway Transportation Act</i>, including overheight,

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Table 11.2: Key Provincial Environmental Permits / Approvals

Permits / Approvals	Activities associated with the Undertaking
	overwidth, overlength and/or overweight loads.
Notice of Project (MOL)	<ul style="list-style-type: none"> • Prior to commencement of Project works.
Letters of Conformity or Zoning Conformity Permits (MMAH)	<ul style="list-style-type: none"> • Undertaking the Project on unorganized territory.
Electrical Safety Authority Permit and Inspection (ESA)	<ul style="list-style-type: none"> • All electrical work.
Leave to Construct (OEB)	<ul style="list-style-type: none"> • Constructing a transmission line greater than 2 km in length.
Early Access to Land of the <i>Ontario Energy Board Act</i> (OEB)	<ul style="list-style-type: none"> • Early access to private properties affected by the proposed project to undertake certain activities (e.g. biological and archaeological field studies, data collection, legal surveys and soil testing) while the Leave to Construct approval is under consideration at the OEB.

11.3 MUNICIPAL REQUIREMENTS

A preliminary list of key municipal permits/approvals is provided in **Table 11.3**.

Table 11.3: Key Municipal Permits / Approvals

Permits / Approvals	Activities associated with Undertaking
Building Permit (Township of Ignace)	<ul style="list-style-type: none"> • Construction of Transmission Towers and other Project-related structures (including foundation) exceeding 10 sq. m. (108 sq. ft.).
Building Permit (Township of Pickle Lake)	<ul style="list-style-type: none"> • Construction of Transmission Towers and other Project-related structures (including foundation) exceeding 10 sq. m. (108 sq. ft.).
Building Permit (Municipality of Sioux Lookout)	<ul style="list-style-type: none"> • Construction of Transmission Towers and other Project-related structures (including foundation) exceeding 10 sq. m. (108 sq. ft.).
Building Permit (City of Dryden)	<ul style="list-style-type: none"> • Construction of Transmission Towers and other Project-related structures (including foundation) exceeding 10 sq. m. (108 sq. ft.).

11.4 OTHER REQUIREMENTS

A preliminary list of other permits/approvals is provided in **Table 11.4**.

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Table 11.4: Other Permits / Approvals

Permits / Approvals	Activities associated with Undertaking
Clearance Letter (CN Rail)	<ul style="list-style-type: none">• Crossing CN rail line(s).
Clearance Letter (CP Rail)	<ul style="list-style-type: none">• Crossing CP rail line(s).
Permission from local police, rural Municipalities, telephone systems, and Hydro One Networks Inc.	<ul style="list-style-type: none">• Relocation of overhead lines and traffic control.
Approval of additional Plans from Municipalities and possibly provincial agencies.	<ul style="list-style-type: none">• Plans relating to general engineering, water, wastewater, storm water, transportation, and geotechnical works.

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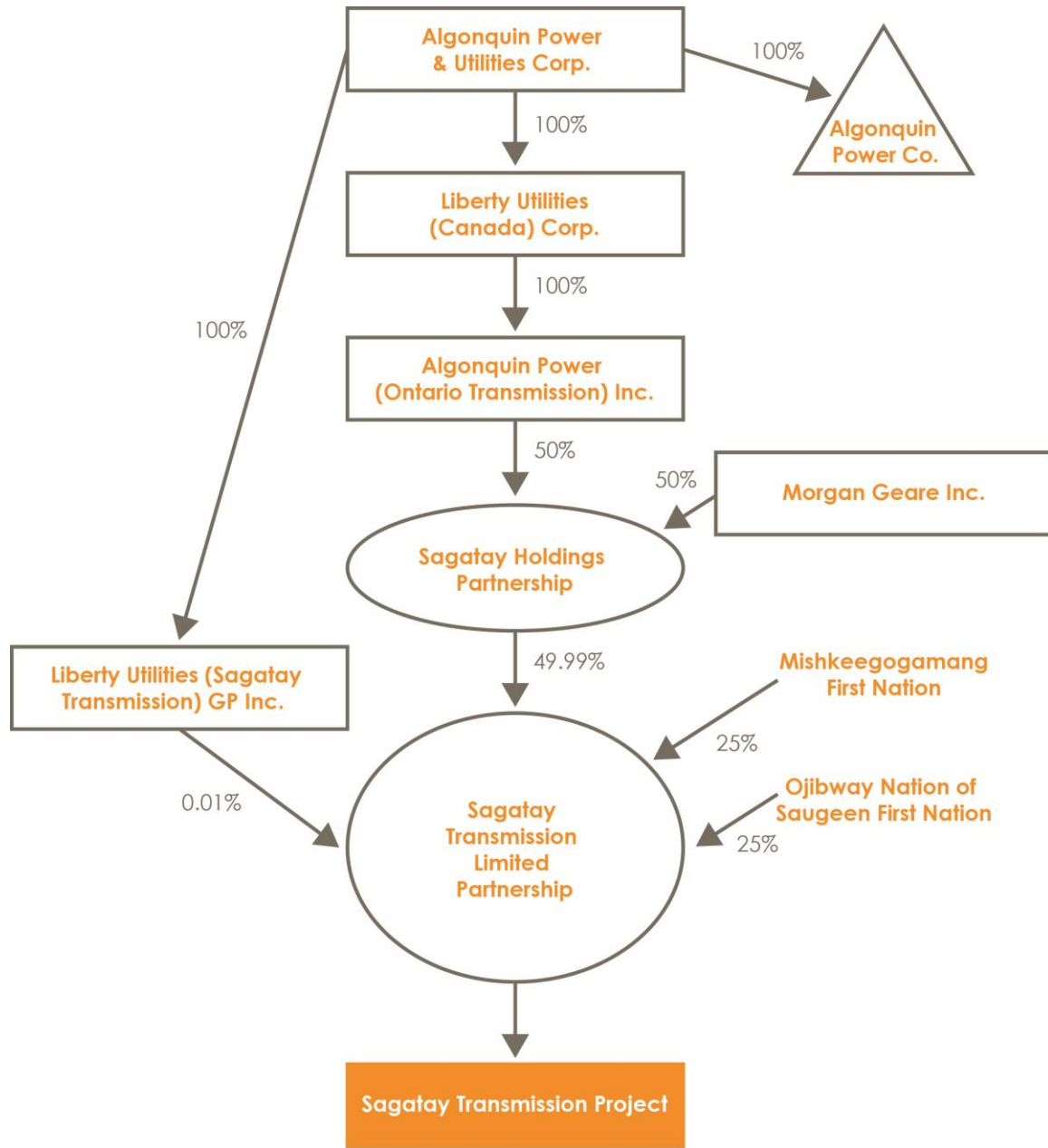
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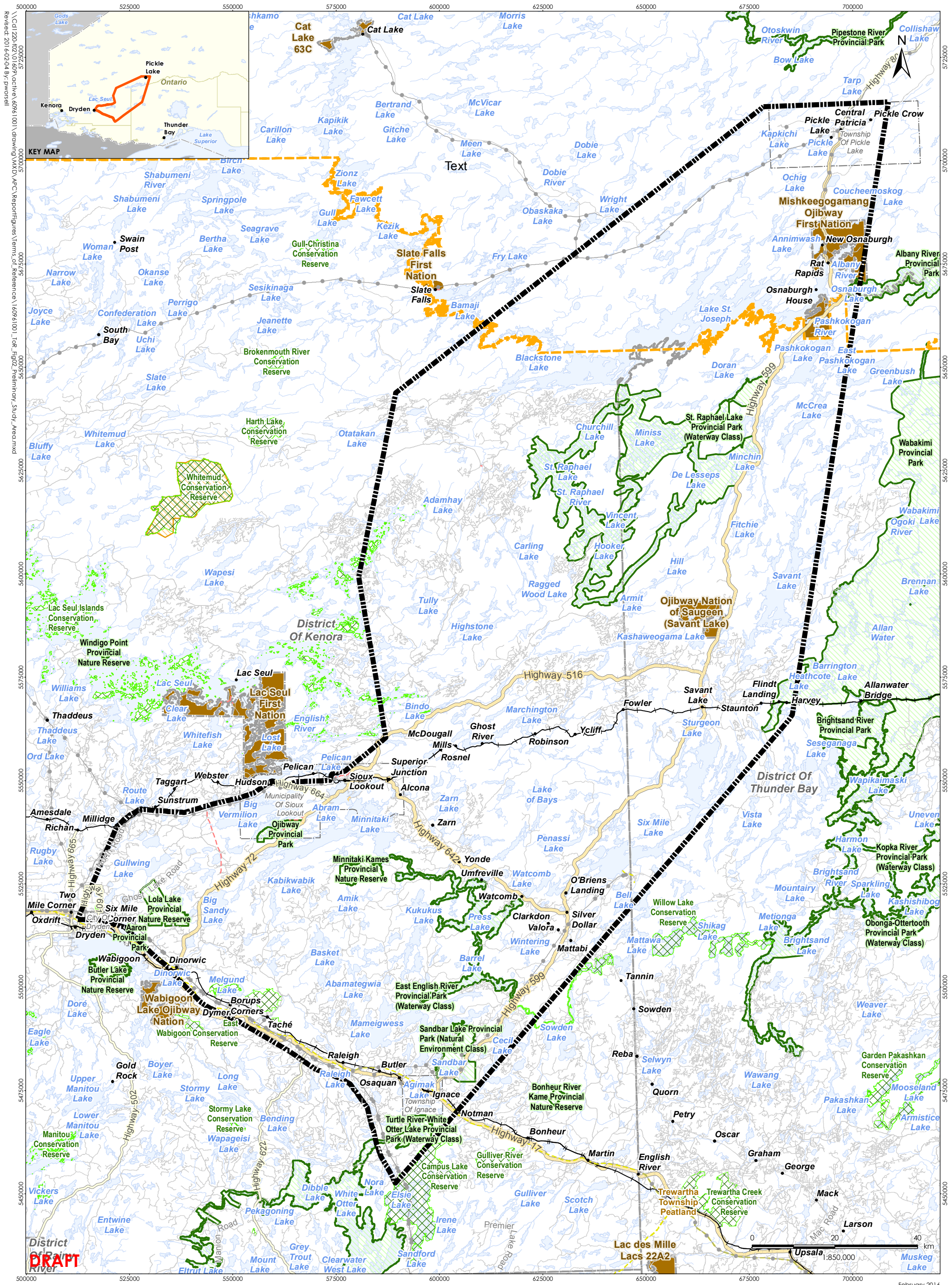
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APPENDIX A: FIGURES

FIGURE 1: SAGATAY CORPORATE STRUCTURE



Key = Corporation = Trust = General Partnership = Limited Partnership = Facility / Asset



Notes

- Coordinate System: NAD 1983 UTM Zone 15N
- Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2016.

Legend

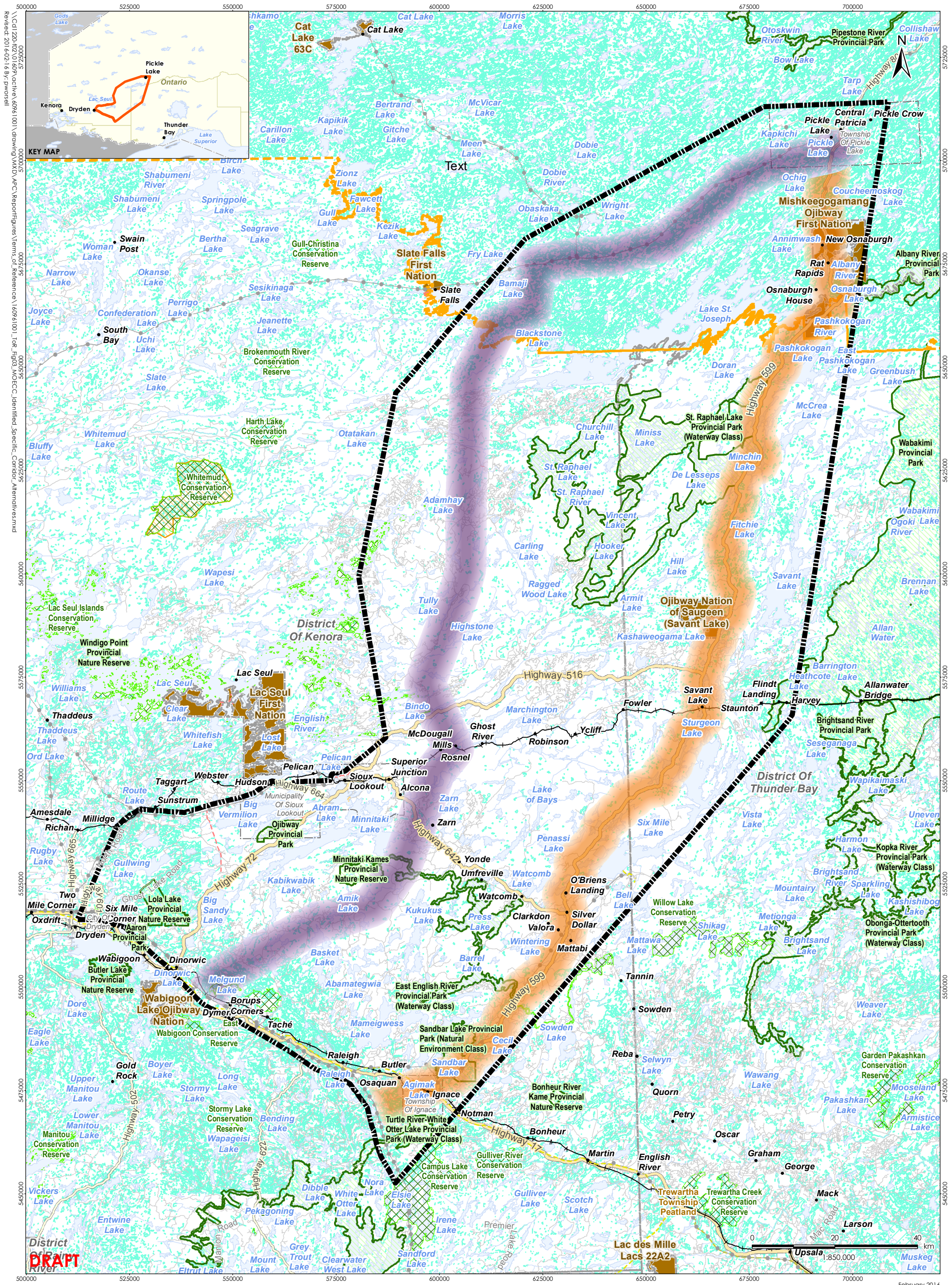
Preliminary Study Area	Unknown Transmission Line	Provincial Park
Expressway / Highway	Watercourse	Far North Act Planning Area
Major Road	Waterbody	
Minor Road	Municipal Boundary - Lower Tier	
Railway - Active	Municipal Boundary - Upper Tier	
Communication Line	ANSI, Earth Science;Regional	
Hydro Line	First Nations Reserve	
Natural Gas Pipeline	Conservation Reserve	

Client/Project
Sagatay Transmission L.P.
Pickle Lake Transmission Line

Figure No.
2
Title
Preliminary Study Area

February 2016
1609161001

DRAFT



Notes

- Coordinate System: NAD 1983 UTM Zone 15N
- Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2016.

- Legend**
- Preliminary Study Area
 - MOECC Provided Corridor Routing - Hwy 599 Alternative
 - MOECC Provided Corridor Routing - Hwy 516/Greenfield Alternative
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway - Active
 - Communication Line
 - Hydro Line
 - Natural Gas Pipeline
 - Unknown Transmission Line
 - Watercourse
 - Waterbody
 - Municipal Boundary - Lower Tier
 - Municipal Boundary - Upper Tier
 - ANSI, Earth Science:Regional
 - First Nations Reserve
 - Wetland - Not evaluated per OWES
 - Conservation Reserve
 - Provincial Park
 - Far North Act Planning Area

Client/Project
Sagatay Transmission L.P.
Pickle Lake Transmission Line

Figure No.
3

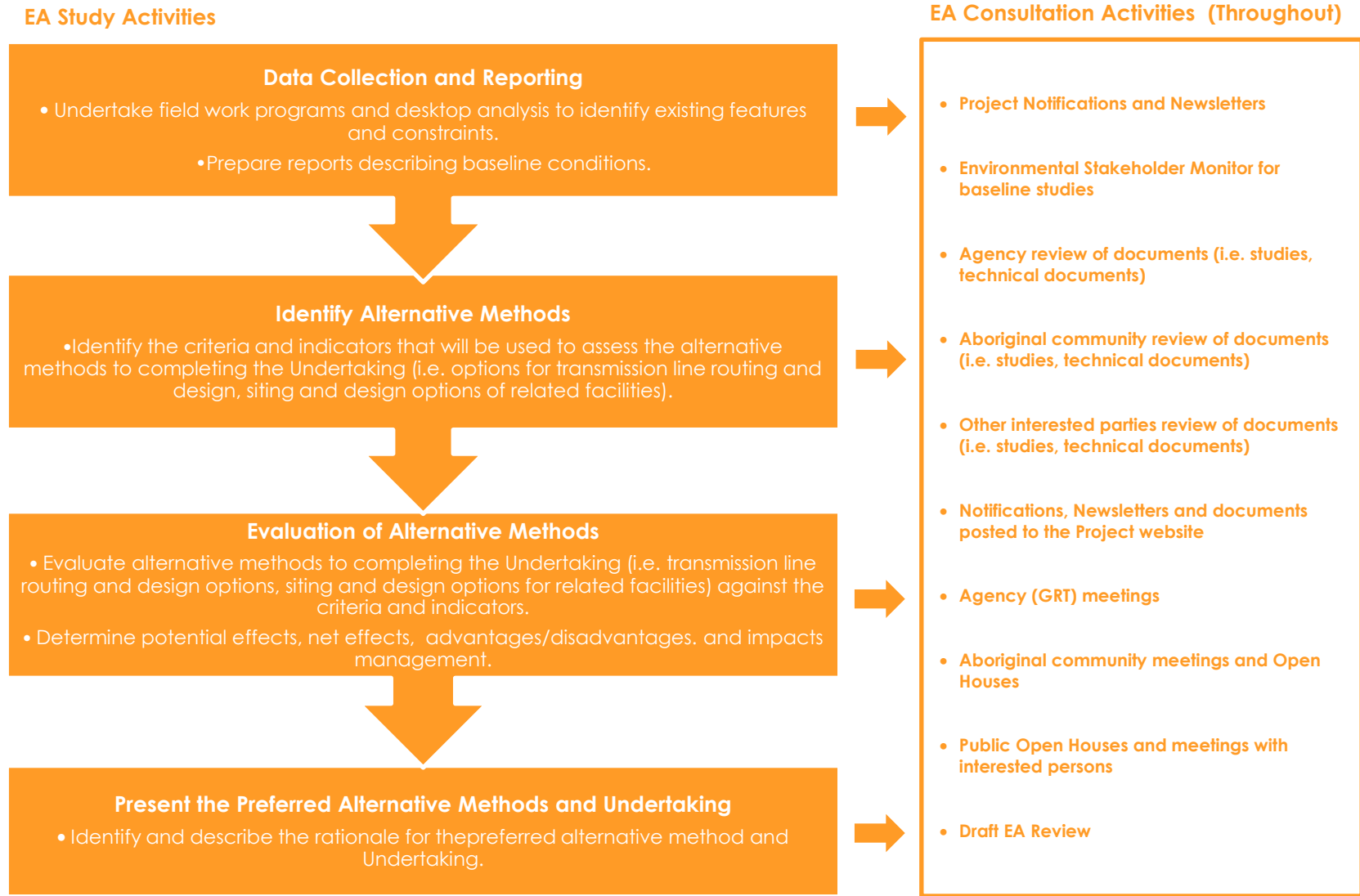
Title
MOECC Identified Specific Corridor Alternatives

February 2016
1609161001



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FIGURE 4: CONSULTATION DURING THE EA PROCESS



APPENDIX B: CONTACT LIST

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Appendix B – Contact List
February 2016

Potential Government Review Team (GRT)

SALUTATION	FIRST NAME	LAST NAME	TITLE	BRANCH	AGENCY
MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE (MOECC)					
Ms.	Kathleen	Hedley	Director	Environmental Approvals Branch	Ministry of the Environment and Climate Change
Mr.	David	Bell	Special Project Officer	Environmental Approvals Branch	Ministry of the Environment and Climate Change
Ms.	Carrie	Hutchison	Regional Environmental Assessment & Planning Coordinator	Northern Region Office	Ministry of the Environment and Climate Change
ONTARIO POWER GENERATION (OPG)					
Ms.	Susan A.	Rapin	Director	Environment Services	Ontario Power Generation
HYDRO ONE NETWORKS INC. (HONI)					
Mr.	Walter	Kloostra	Manager	Transmission Lines Sustainment Investment Planning	Hydro One Networks Inc.
Ms.	Farah	El Ayoubi	Acting Team Lead	Environmental Engineering and Project Support	Hydro One Networks Inc.
MINISTRY OF ABORIGINAL AFFAIRS (MAA)					
				Consultation Unit	Ministry of Aboriginal Affairs
MINISTRY OF TOURISM, CULTURE AND SPORT (MTCS)					
Ms.	Laura	Hatcher	Team Lead (A)	Culture Services Unit, Programs and Services Branch	Ministry of Tourism, Culture and Sport
Mr.	Patrick	Morash	Manager	North Region	Ministries of Citizenship and Immigration, Tourism, Culture and Sport
Mr.	James	Antler	Policy Advisor	Northern Policy and Planning Unit, Tourism Policy and Research Branch	Ministry of Tourism, Culture and Sport
Ms.	Gillian	Steeve	Manager	Strategic Policy	Ministry of Tourism, Culture and Sport
INFRASTRUCTURE ONTARIO (IO)					
Ms.	Lisa	Myslicki	Environmental Advisor	Realty Services, Environmental Services	Infrastructure Ontario
Mr.	Peter	Reed	Manager	Land Use Planning	Infrastructure Ontario
Mr.	Tate	Kelly	Planning Coordinator	Land Use Planning	Infrastructure Ontario
Ms.	Yolanda	Zhang	Environmental Associate		Infrastructure Ontario
MINISTRY OF COMMUNITY SAFETY AND CORRECTIONAL SERVICES (MCSCS)					
	Ali	Veshkini	Director (A)		Ministry of Community Safety and Correctional Services
ONTARIO PROVINCIAL POLICE (OPP)					
Ms.	Joy	Fish Pool	Manager	OPP Facilities Section	Ontario Provincial Police

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Potential Government Review Team (GRT)

SALUTATION	FIRST NAME	LAST NAME	TITLE	BRANCH	AGENCY
Ms.	Paula	Brown		Operational Policy and Strategic Planning Bureau	Ontario Provincial Police
MINISTRY OF ECONOMIC DEVELOPMENT, EMPLOYMENT AND INFRASTRUCTURE (MEDEI)					
Mr.	Damian	Dupuy	Manager	Cabinet Office Liaison and Policy Support Unit	Ministry of Economic Development, Employment and Infrastructure
Mr.	Michael	Helfinger	Senior Policy Advisor	Cabinet Office Liaison and Policy Support Unit	Ministry of Economic Development, Employment and Infrastructure
MINISTRY OF ENERGY (MOE)					
Mr.	Andrea	Pastori	Cabinet Liaison and Strategic Policy Branch Coordinator	Strategic Policy and Analytics Branch, Strategic Network and Agency Policy Division	Ministry of Energy
Mr.	Brett	Smith	Manager	Energy Networks and Innovation Policy	Ministry of Energy
MINISTRY OF MUNICIPAL AFFAIRS AND HOUSING (MMAH)					
Mr.	Victor	Doyle	Manager	Planning Innovation Section, Provincial Planning Policy Branch	Ministry of Municipal Affairs and Housing
Mr.	Charles	O'Hara	Manager	Growth Policy, Ontario Growth Secretariat	Ministry of Municipal Affairs and Housing
Ms.	Shannon	Dodd Smith	Manager	Community Planning and Development, Municipal Services Office - North	Ministry of Municipal Affairs and Housing
MINISTRY OF NATURAL RESOURCES AND FORESTRY (MNR)					
Ms.	Londa	Mortson	Land Use Planning Supervisor	Northwest Regional Resources	Ministry of Natural Resources and Forestry
Mr.	Dave	Lyle	District Planner	Dryden District	Ministry of Natural Resources and Forestry
Mr.	John	Carnochan	District Planner	Sioux Lookout District	Ministry of Natural Resources and Forestry
Mr.	Jason	Suprovich	District Planner	Sioux Lookout District	Ministry of Natural Resources and Forestry
MINISTRY OF NORTHERN DEVELOPMENT AND MINES (MNDM)					
Ms.	Priya	Tandon	Director	Corporate Policy Secretariat	Ministry of Northern Development and Mines
Ms.	Grace	Lo	Policy Advisor	Corporate Policy Secretariat	Ministry of Northern Development and Mines
Ms.	Leigh	Boynton	Policy Advisor	Corporate Policy Secretariat	Ministry of Northern Development and Mines
Ms.	Jennifer	Paetz	Environmental Assessment Coordinator		Ministry of Northern Development and Mines
MINISTRY OF TRANSPORTATION (MTO)					
Mr.	Iain	Galloway	Manager	Engineering Office - Northwestern Region	Ministry of Transportation
Ms.	Cindy	Brown	Head	Corridor Management - Northwestern Region	Ministry of Transportation
Mr.	Kevin	Hlady		Remote Northern Transportation Office	Ministry of Transportation

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Potential Government Review Team (GRT)

SALUTATION	FIRST NAME	LAST NAME	TITLE	BRANCH	AGENCY
Mr.	Kyle	Bruce	Compliance Administrator	Remote Northern Transportation Office	Ministry of Transportation
CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY (CEAA)					
Ms.	Anjala	Puvananathan	Director	Ontario Region	Canadian Environmental Assessment Agency
ABORIGINAL AFFAIRS AND NORTHERN DEVELOPMENT CANADA (AADNC)					
			To Whom It May Concern	Environmental Assessment Coordination, Environmental Unit, Lands and Economic Development	Aboriginal Affairs and Northern Development Canada
ENVIRONMENT CANADA (EC)					
Mr.	Rob	Dobos	Manager	Environmental Assessment Section, Environmental Protection Operations Division - Ontario Region	Environment Canada
DEPARTMENT OF FISHERIES AND OCEANS CANADA (DFO)					
			To Whom It May Concern	Fisheries Protection Program	Fisheries and Oceans Canada
TRANSPORT CANADA (TC)					
			Environmental Assessment Coordinator		Transport Canada
CN RAIL (CN)					
Mr.	Stefan	Linder	Manager	Public Works Design & Construction	CN Rail
MUNICIPALITIES - CLERKS					
Ms.	Manuela	Batovanja	Clerk Treasurer		The Corporation of the Township of Pickle Lake
Ms.	Chantelle	Gascon	Deputy Clerk/Treasurer		The Corporation of the Township of Ignace
Ms.	Mary	MacKenzie	Municipal Clerk		The Corporation of the Municipality of Sioux Lookout
Ms.	Debra	Kincaid	City Clerk		The Corporation of the City of Dryden
Ms.	Allyson	Euler	Deputy Clerk		The Corporation of the City of Dryden

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Aboriginal Community Contacts

SALUTATION	FIRST NAME	LAST NAME	TITLE (IF NOT IN SALUTATION)	REPRESENTING
Mr.	Louie	Seymour	Economic Development Advisor	Bimose Tribal Council
Chief	Russell	Wesley		Cat Lake First Nation
Mr.	Kevin	S		Cat Lake First Nation
Chief	Elizabeth	Atlookan		Eabametoong First Nation
Chief	Arnold	Gardner		Eagle Lake First Nation
Grand Chief	Warren	White		Grand Council of Treaty #3
Chief	Judy	White Cloud		Lac Des Mille Lacs First Nation
Chief	Clifford	Bull		Lac Seul First Nation
Chief	Ellen	Vontane Keno		McDowell Lake First Nation
Mr.	Shafic	Khouri	Energy Resource Development Analyst	Metis Nation of Ontario
Mr.	James	Wagar	Manager, Natural Resources and Consultations	Metis Nation of Ontario
Chief	Connie	Gray-McKay		Mishkeegogamang Ojibway Nation
Mr.	Ronald	Robinson	Interim President	MNO Northwest Metis Council
Chief	Johnny	Yellowhead		Nibinamik First Nation
Mr.	Walter	Oskineegish	Band Manager	Nibinamik First Nation
Grand Chief	Alvin	Fiddler		Nishnawbe Aski Nation
Chief	Edward	Machimity		Saugeen First Nation (Savant Lake)
Chief	Lorraine	Crane		Slate Falls Nation
Chief	Esther	Pitchenese		Wabigoon Lake Ojibway Nation
Chief	Arlene	Slipperjack		Whitewater Lake First Nation
Mr.	Frank	McKay	CEO	Windigo First Nations Council
Mr.	Richard	Habinski	Technical Unit Manager	Windigo First Nations Council
Chief	Martine Athena	Petiquan		Wabauskang First Nation
Chief	Roger	Fobister Sr.		Asubpeeschoseewagong Netum Anishinabek (Grassy Narrows First Nation)
Chief	Loraine	Cobiness		Ochiichagwe' Babigo' Ining Ojibway Nation
Chief	Howard	Kabestra		Nootkamegwanning First Nation (Whitefish Bay)
Chief	Chris	Skead		Wauzhushk Onigum Nation (Rat Portage)