

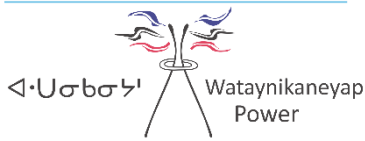
**PHASE 2: CONNECTING 17 REMOTE FIRST NATION COMMUNITIES  
ASSESSMENT OF REVISIONS TO LESS THAN 115 KV SECTIONS**

**LIST OF ACRONYMS/TERMS**

<b>Acronym/Term</b>	<b>Definition</b>
AC	Alternating Current
ANSI	Area of Natural and Scientific Interest
CCEG	Central Corridor Energy Group
EA	Environmental Assessment
EAA	<i>Ontario Environmental Assessment Act</i>
END	Endangered
ESA	<i>Endangered Species Act</i>
ESR	Environmental Study Report
FNLP	First Nation Limited Partnership
Hydro One Class EA	Hydro One Class Environmental Assessment for Minor Transmission Facilities
MECP	Ministry of the Environment, Conservation and Parks
MNRF	Ontario Ministry of Natural Resources and Forestry
MOECC	Ontario Ministry of the Environment and Climate Change
the Project	Connecting 17 Remote First Nation Communities Project
PPCR	Provincial Parks and Conservation Reserves
ROW	Right-of-Way
RSFD	Resource Stewardship and Facility Development
SS	Switching Station

**LIST OF UNITS**

<b>Unit</b>	<b>Definition</b>
ha	Hectare
km	Kilometre
kV	Kilovolt
m	Metre



## PHASE 2: CONNECTING 17 REMOTE FIRST NATION COMMUNITIES ASSESSMENT OF REVISIONS TO LESS THAN 115 kV SECTIONS

### 1.0 INTRODUCTION

A partnership that has grown to 24 First Nation communities was formed (First Nation Limited Partnership [FNLPP], formerly known as the Central Corridor Energy Group [CCEG]) to address the need for sufficient electricity supply for 17 remote First Nation communities. FNLPP partnered with Fortis Inc. (Fortis), to establish a licenced transmission company, the Wataynikaneyap Power Limited Partnership (Wataynikaneyap) with a mandate to develop, construct, operate, and own the Wataynikaneyap Transmission Project. The Wataynikaneyap Transmission Project is being developed in two phases. Phase 1, the New Transmission Line to Pickle Lake Project, is an approximately 300-kilometre (km) long, 230-kilovolt (kV) transmission line from the Dinorwic (east of Dryden) / Ignace area to Pickle Lake in northwestern Ontario. Phase 2 Connecting 17 Remote First Nation Communities (the Project) includes approximately 1,630 km of 115-kV, 44-kV, and 25-kV alternating current (AC) transmission lines, and associated infrastructure for subsystems north of Pickle Lake and Red Lake that will connect 17 remote First Nation communities currently powered by diesel generation, to the provincial electrical grid.

A Final Environmental Study Report (ESR) was submitted for the Project, which was subject to the *Ontario Environmental Assessment Act* (EAA) under the following Class EA processes:

- the Ministry of Natural Resources and Forestry (MNRF) Class Environmental Assessment for Resource Stewardship and Facility Developments (MNRF RSFD Class EA; MNR<sup>1</sup> 2003);
- the MNRF Provincial Parks and Conservation Reserves Class EA (MNRF PPCR Class EA; MNR 2005); and
- the Hydro One Class Environmental Assessment for Minor Transmission Facilities (Hydro One Class EA; Ontario Hydro<sup>2</sup> 1992).

The Final ESR (Wataynikaneyap 2019) was released for public review on November 16, 2018, and underwent a 30-day public review period, ending December 17, 2018. Various ministries and Indigenous communities provided comments on the Final ESR. Wataynikaneyap worked with commenters to respond to and resolve comments following the completion of the review period. Wataynikaneyap posted responses to these comments, along with an updated version of the Final ESR reflecting required edits to their website on July 5, 2019 to mark the completion of this EA process.

In Section 13.0 of the Final ESR, the following commitment was made regarding changes to the Project footprint design:

*Should final Project design results in changes that are outside of the limits of work<sup>3</sup> or changes that are inconsistent with the results of the EA; Wataynikaneyap will engage with the MNRF and the MOECC<sup>4</sup> to discuss potential*

<sup>1</sup> The Ministry of Natural Resources and Forestry (MNRF) was formerly known as the Ministry of Natural Resources (MNR) prior to its name change in 2014.

<sup>2</sup> At the time of publication of the Class EA for Minor Transmission Facilities, Hydro One was known as Ontario Hydro prior to its reorganization into five companies in 1999. The company responsible for hydroelectricity became Hydro One.

<sup>3</sup> In the Environmental Study Report (ESR) Wataynikaneyap proposes a limits of work of 200 m on either side of the 40-m-wide transmission line alignment ROW for the environmental assessment (EA) approval and subsequent permitting purposes.

<sup>4</sup> At the time of publication of the Final ESR, the current Ministry of the Environment, Conservation and Parks (MECP) was known as the Ministry of the Environment and Climate Change (MOECC).

required procedures. These are discussed in Section 5.8 of the MNRFSFD Class EA, Section 6.8 of the MNRFPPCR Class EA and Section 3.9 of the Hydro One Class EA.

In June 2019, Wataynikaneyap prepared a Revision Assessment for the MNRFSFD Class EA. This Revision Assessment, herein referred to as the “2019 Revision Assessment” considered changes subject to this commitment under the MNRFSFD Class EA. The 2019 Revision Assessment provided a comparative analysis of two changes to transmission line right-of-way (ROW) segments less than 115 kV that were outside the limits of work of the comparable alignment assessed in the Final ESR. The 2019 Revision Assessment was submitted to the MNRFSFD on July 5, 2019. The MNRFSFD reviewed the 2019 Revision Assessment and on August 1, 2019 concluded that the changes proposed were minor, did not change the results or mitigation presented in the Final ESR and therefore Wataynikaneyap could proceed with implementing the proposed changes.

This document, herein referred to as the “2020 Revision Assessment” will adhere to the commitments made in Section 13.0 of the Final ESR, following the comparative analysis methodology established in the 2019 Revision Assessment.

## **1.1 Description of Project Design Refinements**

Since the release of the Final ESR and completion of the 2019 Revision Assessment, Wataynikaneyap has continued to engage with Indigenous communities. Through these engagements, Kingfisher Lake First Nation has identified one area to improve the alignment of the 44-kV transmission line at Kingfisher Lake First Nation. An overview of the location of the proposed alignment is presented in Figure 1.

This Revision Assessment under the MNRFSFD Class EA was undertaken to consider potential effects of these Project refinements outside of the limits of work for 44 kV line segments and related infrastructure. As outlined in Section 5.8 of the MNRFSFD Class EA (MNR 2003), revisions in the Project file will be dealt with in one of two ways depending on if the changes are determined to be minor or major:

“MNR will review the proposed modification against the screening criteria in Table 3.1 [of the MNRFSFD Class EA (MNR 2003)]. Where there would be no increase in negative environmental effects or level of public or agency concern, the modification would be considered minor and the project may proceed. Where there would be an increase in potential negative environmental effects or level of public or agency concern, the modification would be considered major and MNR staff will undertake additional evaluation; the results of the evaluation shall be documented in a Revised Project File or a Revised ESR” (MNR 2003).

This report provides an analysis of the planned revision compared with the assessment in the Final ESR to help inform the MNRFSFD’s review. This assessment uses the metrics defined for consideration of corridor alternatives described in Appendix 3.10A and 3.11A of the Final ESR, which correlates with the environmental criteria defined for this EA (see Section 4.0 of the Final ESR). These metrics align with the MNRFSFD screening criteria provided in Table 3.1 of the MNRFSFD Class EA (MNR 2003), as shown in Table 2-1, below. Metrics include consideration of results of engagement with Indigenous communities, land use planning, and available baseline environmental spatial data. The results of the comparative analysis highlight any differences between the predicted environmental effects identified in the Final ESR and 2019 Revision Assessment, and those associated with the proposed refinements along with consideration of relevant mitigation measures, where applicable.

## 2.0 METHOD FOR THE ANALYSIS OF PROJECT REFINEMENTS

The objectives of this section are to describe the approach to completing the analysis of environmental metrics for the identified area of the Project footprint refinement compared with an equivalent section of the Project footprint within the Final ESR, and the method for characterizing any differences in the potential environmental effects of the change compared with the assessment provided in the Final ESR.

The following five key factors were considered in the analysis of the corridors:

- natural environment;
- land use and resource management;
- socio-economic and cultural;
- Indigenous considerations; and
- technical, including constructability and relative cost which is derived primarily from technical constraints. Cost was not considered as the sole or overriding justification.

The metrics that were considered in the analysis are presented in Appendix A. The reported metrics represent publicly available datasets and datasets collected for the Project. The metrics are relevant to the study areas associated with these corridors, and consistent with the assessment of corridor alternatives presented in Section 3.10 and Appendix 3.11A of the Final ESR. The summary of metrics in Section 3.0 does not include rows for metrics not affected by the route revision (e.g., land use and resource management is not included as a table row as there were no areas overlapped). As there are no proposed changes to the substations as a result of these corridor refinements, no assessment of potential noise effects from the Project on points of reception during the operation stage was undertaken as part of this comparative analysis. Where reference to traditional land and resource use is made, general context on the locations being compared is provided by indicating the relative number of broad types of land uses, respecting the sensitivity of the information. Traditional land and resource use types consider values related to harvesting (e.g., hunting, trapping, fishing, harvest of plants, gardening), travel (e.g., trails, snowmobile routes), habitation (e.g., camping areas), sensitive sites (e.g., cultural, spiritual, archaeological, burial sites), natural features (e.g., rapids, specific wildlife habitat), or any other types of values shared under consent to support the environmental assessment.

A review and comparison of the screening criteria in the Class EA for RSFD (MNR 2003) was completed against the alternatives assessment metrics, and a concordance exercise was undertaken to identify how each of the Class EA for RSFD screening criteria would be captured in the alternatives analysis. Results of the concordance exercise, which was based on the criteria outlined in Table 3.1: Screening Criteria in the Class EA for RSFD (MNR 2003), are summarized in Table 2-1.

Where screening criteria from the Class EA for RSFD (MNR 2003) have not been identified as metrics, they are not judged to mark a distinguishing characteristic between the alternatives (e.g., the Project is not expected to affect permafrost by identifying and avoiding through design; release of contaminants in soils and sediments will be managed through best management practices for all alternatives).

Mitigation measures summarized for the Project in Section 9.0 Environmental and Social Management Plan of the Final ESR are applicable in all work areas for the Project.

**Table 2-1: Concordance between the Applicable Ministry of Natural Resources and Forestry Screening Criteria and the Alternatives Assessment Metric Categories**

MNRF Screening Considerations (MNR 2003)	MNRF Screening Criteria (MNR 2003)	Applicable Alternatives Assessment Metric Categories (see Appendix A for data sources)
Natural Environment	Air quality	■ Point of reception
	Water quality or quantity (ground or surface)	■ Waterbodies and watercourses
	Species at risk or their habitat	■ Threatened and endangered species or their habitat
	Significant earth or life science features	■ ANSI
	Fish or other aquatic species, communities, or their habitat (including movement of resident or migratory species)	■ Waterbodies and watercourses
	Land subject to natural or human-made hazards	■ n/a
	Recovery of a species under a special management program (e.g., elk restoration)	■ Threatened and endangered species or their habitat
	Ecological integrity	■ ANSI; ■ Wetlands; ■ Waterbodies and watercourses; ■ Vegetation; ■ Wildlife habitat; ■ Threatened and endangered species or their habitat; and ■ Bald eagle nesting sites
	Terrestrial wildlife (including numbers, diversity and movement of resident or migratory species)	■ Wildlife habitat; ■ Threatened and endangered species or their habitat; and ■ Bald eagle nesting sites
	Natural vegetation and terrestrial habitat linkages or corridors through fragmentation, alteration and/or critical loss	■ ANSI; ■ Wetlands; Vegetation; ■ and ■ Wildlife habitat
Permafrost	■ n/a; discrete areas of permafrost will be avoided through Project design (e.g., through corridor routing; pole installation method) for less than 115 kV sections of the line	

**Table 2-1: Concordance between the Applicable Ministry of Natural Resources and Forestry Screening Criteria and the Alternatives Assessment Metric Categories**

<b>MNRF Screening Considerations (MNR 2003)</b>	<b>MNRF Screening Criteria (MNR 2003)</b>	<b>Applicable Alternatives Assessment Metric Categories (see Appendix A for data sources)</b>
Natural Environment	Soils and sediment quality	■ n/a
	Drainage or flooding	■ Waterbodies and watercourses
	Sedimentation or erosion	■ Waterbodies and watercourses
	Release of contaminants in soils, sediments	■ n/a
	Natural heritage features and areas (e.g. areas of natural and scientific interest, provincially significant wetlands)	■ ANSI; and ■ Wetlands
Land Use, Resource Management	Access to trails or inaccessible areas (land or water)	■ Trails
	Or obstruct navigation	■ Waterbodies and watercourses
	Other resource management projects	■ Land designation
	Traffic patterns or traffic infrastructure	■ Existing infrastructure
	Recreational importance – public or private	■ Tourism and recreation
	Creation of waste	■ n/a
	Or commit a significant amount of a non-renewable resource (e.g. aggregates, agricultural land)	■ Land designation
	Noise levels	■ Point of reception
	Views or aesthetics	■ Tourism and recreation
	Or be a precondition or justification for implementing another project	■ n/a
Socio-economic and, Cultural	Adjacent or nearby uses, persons or property	■ Land designation; ■ Tourism and recreation; ■ Existing infrastructure; and ■ Point of reception
	Cultural heritage resources – including archaeological sites, built heritage, and cultural heritage landscapes	■ Archaeology and cultural heritage
	Built heritage and cultural heritage landscapes	■ Archaeology and cultural heritage
	Or displace people, businesses, institutions, or public facilities	■ Land designation; ■ Tourism and recreation; and ■ Existing infrastructure
	Community character, enjoyment of property, or local amenities	■ Tourism and recreation
	Or increase demands on government services or infrastructure	■ Existing infrastructure
	Public health and/or safety	■ Point of reception
	Local, regional or provincial economies or businesses	■ Land designation
Tourism values (e.g. resource-based tourist lodge)	■ Tourism and recreation	

**Table 2-1: Concordance between the Applicable Ministry of Natural Resources and Forestry Screening Criteria and the Alternatives Assessment Metric Categories**

MNRF Screening Considerations (MNR 2003)	MNRF Screening Criteria (MNR 2003)	Applicable Alternatives Assessment Metric Categories (see Appendix A for data sources)
Aboriginal Considerations	First Nation reserves or communities	■ Traditional land and resource use
	Spiritual, ceremonial, or cultural sites	
	Traditional land or resources used for harvesting, activities	
	Aboriginal values	
	Lands subject to land claims	■ n/a

ANSI = Area of Natural and Scientific Interest; MNRF = Ontario Ministry of Natural Resources and Forestry; n/a = Not applicable.

### 3.0 PROJECT REFINEMENT COMPARATIVE EFFECTS ASSESSMENT RESULTS

This section presents the results of the comparative analysis for the section where the 44 kV, 40-m-wide transmission line alignment was revised outside of the limits of work compared with an equivalent section of the Project footprint assessed in the Final ESR. Specifically, this includes the following area:

Pickle Lake subsystem:

- Right-of-way (ROW) around an area of Kingfisher Lake First Nation reserve lands.

The metric tables used to support the Project refinement analysis are presented in Appendix A. The Project footprints were evaluated by comparing the presence of features within or where applicable, adjacent to the ROW, and by highlighting discernable differences between them. The Project segment subject to the corridor refinement analysis is shown in Figure 1 presented in Appendix B.

The amended Project footprint may be further refined during detailed design within the limits of work presented in the Final ESR and in this assessment in an effort to avoid sensitive features, to the extent practical, and use previously disturbed areas. Efforts will be made to reduce environmental effects associated with the preferred corridor, and Wataynikaneyap with their contractor(s) will commit to implementing mitigation measures identified in the Final ESR and adhere to all permits and approvals required for the Project.

#### 3.1 Pickle Lake Subsystem

##### 3.1.1 Alignment South of Kingfisher Lake First Nation

The route for the Project segment identified as the *Alignment South of Kingfisher Lake First* (Figure 1) has been refined based on input Wataynikaneyap has received through engagement with Kingfisher Lake First Nation.

During communications prior to and following EA approval (received in June 2019), community leadership from Kingfisher Lake First Nation indicated to Wataynikaneyap that they wished to discuss alternative route alignments for the transmission line alignment ROW designed to cross their second (#2) reserve lands. Through ongoing

communication and engagement meetings, the community contemplated two route alternatives; the alternative assessed in the Final ESR and an alternative that follows favourable soil conditions based on the results of completed soil modelling (PolyGeo data). Through engagement (see Table 3-1) and as confirmed with community leadership in December 2019, the community advised that they would like Wataynikaneyap to implement a hybrid of the two alignments, which included a shift in the alignment off reserve. This hybrid alignment is presented in Figure 1.

A summary of relevant records of engagement with Kingfisher Lake First Nation is presented in Table 3-1.

**Table 3-1: Communication Summary - Alignment South of Kingfisher Lake First Nation**

Date	Method of Communication	Summary
Sept 18, 2018	In-person meeting	Line routing discussion with Kingfisher Lake First Nation, working to shift the alignment of the line off the main reserve.
Nov 8, 2018	Email	Mapping to support the Section 28(2) permits was shared with Shibogama Tribal Council for Kingfisher Lake First Nation review prompting discussions around the routing in reserve #2.
July 19, 2019	Telephone	Following internal discussions in Kingfisher Lake First Nation, the community proposed a hybrid of the routing alternatives. They wish to keep the incoming link from the west of reserve #2 as originally proposed, and to shift the outgoing line to the east off the reserve.
October 21, 2020	Email	A letter from Chief Lott was received by Wataynikaneyap outlining that support of the reroute was confirmed by the two relevant traditional land heads from Kingfisher Lake First Nation.

A high-level baseline characterization for the amended Project footprint with comparison to the Project footprint assessed in the Final ESR for this segment of the Project is presented in Table 3-2. The full set of metrics considered is presented in Appendix A. Generally, habitat for wildlife criteria is present along both Project footprints.

**Table 3-2: Comparative Summary - Alignment South of Kingfisher Lake First Nation**

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment South of Kingfisher Lake First Nation		
	KFL1 (Amended Project Footprint)	KFL2 (Project Footprint Considered in the Final ESR and Post- Approval Amendments)	
Technical	<b>Size</b> <ul style="list-style-type: none"> <li>■ ROW is approximately 5.7 km in length.</li> <li>■ The Project footprint has an area of approximately 23.2 ha.</li> </ul>	<b>Size</b> <ul style="list-style-type: none"> <li>■ ROW is approximately 4.9 km in length.</li> <li>■ The Project footprint has an area of 20.2 ha.</li> </ul>	<ul style="list-style-type: none"> <li>■ KFL1 has a slightly longer ROW length and larger Project footprint than KFL2.</li> </ul>

**Table 3-2: Comparative Summary - Alignment South of Kingfisher Lake First Nation**

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment South of Kingfisher Lake First Nation		
	KFL1 (Amended Project Footprint)	KFL2 (Project Footprint Considered in the Final ESR and Post- Approval Amendments)	
Natural Environment	<b>Wetlands<sup>(a)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses 0.8 ha of mapped, unevaluated wetlands.</li> </ul>	<b>Wetlands<sup>(a)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses 2.7 ha of mapped, unevaluated wetlands.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint of KFL1 crosses a slightly smaller area of mapped, unevaluated wetlands.</li> </ul>
	<b>Waterbodies and Watercourses<sup>(b)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses two mapped watercourses.</li> </ul>	<b>Waterbodies and Watercourses<sup>(b)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses two mapped watercourses.</li> </ul>	<ul style="list-style-type: none"> <li>No discernable difference between the Project footprints of KFL1 and KFL2.</li> </ul>
	<b>Vegetation<sup>(d)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses: <ul style="list-style-type: none"> <li>23.2 ha of natural landcover (terrestrial)</li> </ul> </li> </ul>	<b>Vegetation<sup>(d)</sup></b> <ul style="list-style-type: none"> <li>The Project footprint crosses: <ul style="list-style-type: none"> <li>20.2 ha of natural landcover (terrestrial)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The KFL1 project footprint crosses a slightly larger area of natural landcover (terrestrial).</li> </ul>
Natural Environment (cont'd)	<b>Wildlife Habitat</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 14.1 ha of potential suitable moose habitat.</li> <li>The Project footprint crosses 14.1 ha of potential suitable bald eagle habitat.</li> <li>The Project footprint crosses 16.8 ha of potential suitable Canada warbler habitat.</li> <li>The Project footprint crosses 8.6 ha of potential suitable common nighthawk habitat.</li> <li>The Project footprint crosses 14.6 ha of potential suitable olive-sided flycatcher habitat.</li> </ul>	<b>Wildlife Habitat</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 9.6 ha of potential suitable moose habitat.</li> <li>The Project footprint crosses 9.6 ha of potential suitable bald eagle habitat.</li> <li>The Project footprint crosses 14.9 ha of potential suitable Canada warbler habitat.</li> <li>The Project footprint crosses 9.9 ha of potential suitable common nighthawk habitat.</li> <li>The Project footprint crosses 9.6 ha of potential suitable olive-sided flycatcher habitat.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint of KFL1 crosses a slightly larger area of potential moose, bald eagle, Canada warbler and olive-sided flycatcher habitat while the Project footprint of KFL2 crosses a slightly larger area of potential common nighthawk habitat.</li> </ul>
	<b>Threatened and endangered species or their habitat (Caribou (Boreal population))</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 23.2 ha of mapped Category 3 habitat.</li> </ul>	<b>Threatened and endangered species or their habitat (Caribou (Boreal population))</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 20.2 ha of mapped Category 3 habitat.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint of KFL1 crosses a larger area of mapped Category 3 habitat.</li> </ul>
	<b>Threatened and endangered species or their habitat (Wolverine)</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 23.2 ha of potential wolverine habitat.</li> </ul>	<b>Threatened and endangered species or their habitat (Wolverine)</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 20.2 ha of potential wolverine habitat.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint of KFL1 crosses a larger area of potential wolverine habitat.</li> </ul>

**Table 3-2: Comparative Summary - Alignment South of Kingfisher Lake First Nation**

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment South of Kingfisher Lake First Nation		
	KFL1 (Amended Project Footprint)	KFL2 (Project Footprint Considered in the Final ESR and Post- Approval Amendments)	
	<b>Threatened and endangered species or their habitat (Little brown myotis)</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 7.8 ha of potentially suitable little brown myotis maternity roost habitat.</li> </ul>	<b>Threatened and endangered species or their habitat (Little brown myotis)</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 5.0 ha of potentially suitable little brown myotis maternity roost habitat.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint of KFL1 crosses a larger area of potentially suitable little brown myotis maternity roost habitat.</li> </ul>
Socio-economic	<b>Archaeology and Cultural Heritage</b> <ul style="list-style-type: none"> <li>The Project footprint crosses 0.7 ha of land with archaeological potential.</li> </ul>	<b>Archaeology and Cultural Heritage</b> <ul style="list-style-type: none"> <li>The Project footprint does not cross any land with archaeological potential.</li> </ul>	<ul style="list-style-type: none"> <li>The Project footprint for KFL1 crosses an area of archaeological potential. Areas of archaeological potential crossed by the Project footprint for KFL1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction.</li> </ul>
Indigenous Considerations	<b>Traditional Land and Resource Use</b> <u>Kingfisher Lake First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> <li>Two identified types of TLRU values.</li> </ul>	<b>Traditional Land and Resource Use</b> <u>Kingfisher Lake First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> <li>Two identified types of TRLU values.</li> </ul>	<ul style="list-style-type: none"> <li>No discernable difference between the Project footprints for KFL1 and KFL2. No TLRU features classified as “avoid” were identified within the Project footprint based on currently available data. The community has directed their preference is for KFL1.</li> </ul>

Notes:

- a) All wetlands are understood to be unevaluated.
- b) In employing a conservative approach, this assessment assumes that all waterbodies and watercourses have the potential to support fish and fish habitat.
- c) Waterbodies not including watercourses.
- d) Natural landcover (terrestrial) includes the following landcover classes: bog – open, bog – treed, fen – open, fen – treed, forest – dense coniferous, forest – dense deciduous, forest – dense mixed, forest – regenerating depletion and forest – sparse. Anthropogenic disturbance includes the following land cover classes: forest depletion – cuts and settlement/infrastructure. Natural disturbance includes the forest depletion – burns land cover class.

The proposed re-alignment (KFL1) was identified by community leadership of Kingfisher Lake First Nation during July 2019 engagement as a preferred route. The proposed realignment of KFL1 results in a small increase in the length of the ROW (0.8 km) and Project footprint area (3 ha). The natural environment metrics presented in Table 3-2 for the KFL1 Project footprint generally result in correspondingly increased area, as the Project footprint for KFL1 crosses a larger area of natural landcover and potentially suitable habitat for moose, bald eagle, Canada Warbler, olive-sided flycatcher, wolverine, maternity roost habitat for little brown myotis, Category 3 woodland caribou habitat and areas of archaeological potential. The Project footprint for KFL1 does result in decreases to some metrics, such as the area of mapped, unevaluated wetlands and potentially suitable habitat for common nighthawk. General habitat types are similar between KFL1 and KFL2 (dense coniferous, dense mixed forest and

sparse forest). No high potential areas of hibernacula were identified within the ROW-limits of work on the Pickle Lake subsystem during assessment in support of the Final ESR and permitting; therefore, potential for bat hibernacula along KFL1 is likely to be low.

Construction and operation and maintenance activities for the KLF1 Project footprint are predicted to have similar effects and mitigation to those described in Section 10.0 Net Effects Assessment of the Final ESR for the majority of the physical environment, biological environment, and socio-economic environment criteria. No reasonably foreseeable developments are intersected by the proposed alignment within this section of the Project (Section 4.0 of the Final ESR), and therefore, cumulative effects are not anticipated. As the construction and operation of a new transformer or switching station is not applicable to this segment of the Project, effects and mitigation identified in Section 10.0 in the Final ESR for noise are not applicable.

The assessment of the potential effects of the Project that includes this route refinement reaches the same conclusions as for the EA criteria in Sections 5.0 to 8.0 of the Final ESR; and in consideration of implementation of the mitigation, commitments and monitoring in Section 12.0 and the environmental and social management plan in Section 9.0 of the Final ESR. Therefore, in alignment with community preference, the proposed KLF1 Project footprint realignment is preferred.

The full set of metrics applied to the ROW comparison presented in Table 3 and in Appendix A has been run against the limits of work area surrounding the proposed 40-m wide ROW. The limits of work area for the revised ROW segment overlaps the same features presented in Table 3, and therefore, should Wataynikaneyap require realignment within the limits of work during construction, it is predicted that the potential effects of the will reach the same conclusions and consider implementation of the same commitments described above.

## 4.0 CONCLUSION

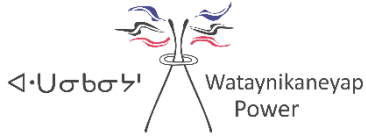
The proposed design changes do not introduce any additional project-environment interactions beyond those outlined in the Final ESR, as the potential effects of these proposed design changes are expected to be adequately addressed by the proposed mitigation measures described in the Final ESR. Accordingly, in alignment with community preference, Wataynikaneyap intends to implement the KFL1 route revision.

## 5.0 REFERENCES

- MNR (Ontario Ministry of Natural Resources). 2003. A Class Environmental Assessment for MNR Resource Stewardship and Facilities Development Project. Environmental Assessment Report Series. Queen's Printer for Ontario. Ontario, Canada.
- MNR. 2005. A Class Environmental Assessment for Provincial Parks and Conservation Reserves. December 31, 2004. ISBN: 0-7794-3848-5.
- Ontario Hydro. 1992. Class Environmental Assessment for Minor Transmission Facilities. Pursuant to the Environmental Assessment Act. Revision 6. Report No. 89513.
- Wataynikaneyap Power L.P. (Wataynikaneyap). 2019. Phase 2: Connecting 17 Remote First Nation Communities Final Environmental Study Report.

# **APPENDIX A**

## **Metrics Tables**



---

## APPENDIX A: METRICS TABLES

### Phase 2 Connecting 17 Remote First Nations Communities Assessment of Revisions to less than 115 kV Section

---

## Table of Contents

### TABLES

Table A-1:	Corridor Analysis Factors and Metrics.....	1
Table A-2:	Metrics Considered in the Amendment to the Final ESR.....	4

**Table A-1: Corridor Analysis Factors and Metrics**

Factor	Metric Category	Metric
Technical	Size	<ul style="list-style-type: none"> <li>■ Total length of the 44-kV right-of-way (ROW)</li> <li>■ Area of Project footprint (ha)</li> </ul>
	Existing Infrastructure	<ul style="list-style-type: none"> <li>■ Number of existing roads crossed by the Project footprint (number of separately identified roads)</li> <li>■ Number of points where existing roads are crossed by the Project footprint (includes multiple crossings of the same road)</li> <li>■ Number of other existing linear corridors crossed by the Project footprint (e.g., communication lines).</li> </ul>
Natural Environment	Areas of Natural and Scientific Interest	<ul style="list-style-type: none"> <li>■ Area of mapped candidate Areas of Natural and Scientific Interest (ANSI) (Earth Science and Life Science) in the Project footprint (ha)</li> </ul>
	Wetlands <sup>(a)</sup>	<ul style="list-style-type: none"> <li>■ Area of mapped wetlands in the Project footprint (ha)</li> </ul>
	Waterbodies and Watercourses <sup>(b)</sup>	<ul style="list-style-type: none"> <li>■ Number of mapped watercourses crossed by the Project footprint</li> <li>■ Area of mapped waterbodies (not including watercourses) in the Project footprint (ha)</li> <li>■ Number of mapped waterbodies (not including watercourses) crossed by the Project footprint</li> </ul>
	Vegetation	<ul style="list-style-type: none"> <li>■ Area of mapped occurrences of provincially tracked vegetation species in the Project footprint<sup>(c)</sup> (ha)</li> <li>■ Area of Natural Landcover (Terrestrial), Anthropogenic Disturbance, and Natural Disturbance within the Project footprint<sup>(d)</sup></li> </ul>
	Wildlife Habitat	<ul style="list-style-type: none"> <li>■ Area of suitable habitat (see Section 6.3 and Appendix 6.3B of the Final ESR for suitable habitat assumptions) for all wildlife criteria species (not Threatened or Endangered species) in the Project footprint (i.e., moose; horned grebe; bald eagle, Canada warbler, common nighthawk, and olive-sided flycatcher) (ha)</li> <li>■ Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint<sup>(c)</sup> (ha)</li> <li>■ Number of spawning sites crossed by the Project footprint</li> <li>■ Number of fish and wildlife feeding or staging areas in the Project footprint</li> </ul>
	Nesting Sites	<ul style="list-style-type: none"> <li>■ Number of bald eagle nesting sites crossed by the Project footprint</li> </ul>

**Table A-1: Corridor Analysis Factors and Metrics**

Factor	Metric Category	Metric
Natural Environment (cont'd)	Threatened and Endangered species or their Habitat	<ul style="list-style-type: none"> <li>■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery areas) in the Project footprint (ha)</li> <li>■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use areas) in the Project footprint (ha)</li> <li>■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery and winter use area overlap) in the Project footprint (ha)</li> <li>■ Area of mapped Caribou (boreal population) Category 2 seasonal range habitat in the Project footprint (ha)</li> <li>■ Area of mapped Caribou (boreal population) Category 3 habitat in the Project footprint (ha)</li> <li>■ Area of Caribou (boreal population) travel corridors (Spring; April) crossed by the Project footprint (ha)</li> <li>■ Area of Caribou (boreal population) travel corridors (Fall; November) crossed by the Project footprint (ha)</li> <li>■ Area of potential suitable wolverine habitat in the Project footprint (ha)</li> <li>■ Number of observed boulder fields or blowdown areas representing potential wolverine den habitat crossed by the Project footprint (identified through aerial reconnaissance – see Section 6.3 of the Final ESR)</li> <li>■ Area of potential suitable maternity roosting habitat for little brown myotis in the Project footprint (ha)</li> <li>■ Number of moderate to high potential bat hibernacula within the Project footprint</li> <li>■ Area of suitable habitat for bank swallow in the Project footprint (ha)</li> </ul>
Land Use, Resource Management	Land Designation	<ul style="list-style-type: none"> <li>■ Area of Enhanced Management Areas within the Project footprint (ha)</li> <li>■ Area of active, inactive, or abandoned mines in the Project footprint (ha)</li> <li>■ Number of mining claims crossed by the Project footprint</li> <li>■ Area of active mining claims in the Project footprint (ha)</li> <li>■ Area of aggregate pits in the Project footprint (ha)</li> </ul>
	Trails	<ul style="list-style-type: none"> <li>■ Number of mapped trails (OTN and non-OTN<sup>(e)</sup>) crossed by the Project footprint</li> <li>■ Length of mapped trails (OTN and non-OTN) crossed by the Project footprint (km)</li> </ul>
	Points of Reception	<ul style="list-style-type: none"> <li>■ Number of potential receptor points within 1 km of a Project substation <sup>(f)</sup></li> </ul>

**Table A-1: Corridor Analysis Factors and Metrics**

Factor	Metric Category	Metric
Socio-economic and Cultural	Tourism and Recreation	<ul style="list-style-type: none"> <li>■ Area of tourism establishment areas crossed by the Project footprint (ha)</li> <li>■ Existing buildings crossed by the Project footprint</li> <li>■ Recreation points crossed by the Project footprint <sup>(g)</sup></li> <li>■ Number of bait harvest areas (BHA) crossed by the Project footprint</li> <li>■ Area of BHA crossed by the Project footprint (ha)</li> </ul>
	Archaeology and Cultural Heritage	<ul style="list-style-type: none"> <li>■ Number of archaeological sites crossed by the Project footprint <sup>(h)</sup></li> <li>■ Length of ROW within area of archaeological potential</li> <li>■ Area of archaeological potential in the Project footprint (ha)</li> </ul>
Aboriginal Consideration	Traditional Land and Resource Use, including spiritual or cultural sites <sup>(i)</sup>	<ul style="list-style-type: none"> <li>■ Traditional land and resource use features shared by First Nations communities crossed by the Project footprint, classified as features to be avoided (e.g., burial sites).</li> </ul>

Note:

- a) All wetlands are understood to be unevaluated.
- b) In employing a conservative approach, this assessment assumes that all waterbodies and watercourses have the potential to support fish and fish habitat.
- c) Areas are considered based on “element and species occurrence and observation” datasets that record observations for species listed by MNRF as provincially tracked by the Natural Heritage Information Centre.
- d) Natural landcover (terrestrial) includes the following landcover classes: bog – open, bog – treed, fen – open, fen – treed, forest – dense coniferous, forest – dense deciduous, forest – dense mixed, forest – regenerating depletion and forest – sparse. Anthropogenic disturbance includes the following land cover classes: forest depletion – cuts and settlement/infrastructure. Natural disturbance includes the forest depletion – burns land cover class.
- e) Mapped trails include non-OTN trails available through LIO. No OTN trails were identified as being crossed by the defined corridors.
- f) Points of reception were identified considering LIO datasets defining the locations of buildings, as well as locations of structures defined through the traditional and resource use study.
- g) Recreation points are defined as access points, beaches, boat caches of all types, boat houses, designated campsites and picnic sites.
- h) Archaeological site data may not be released publicly without the express permission of the Ministry of Tourism, Culture, and Sport to protect the integrity of these sites.
- i) See Section 8.0 of the Final ESR for further information on traditional land and resource use information collected for the Project.

ROW = right-of-way; km = kilometres; ha = hectares; ANSI = Area of Natural Significance and Interest; OTN = Ontario Trail Network; BHA = bait harvest areas.

**Table A-2: Metrics for Revisions to less than 115 kV Segments**

Factor	Metric Category	Metrics	Pickle Lake Subsystem	
			Alignment Around Kingfisher Lake First Nation	
			KF1 (Amended Project Footprint)	KF2 (Project Footprint Considered in the Final ESR)
Technical	Size	Total length of the 44-kV ROW (km)	5.7	4.9
		Area of Project footprint (ha)	23.2	20.2
	Existing Infrastructure	Number of existing roads crossed by the Project footprint	0	0
		Number of points where existing roads are crossed by the Project footprint (includes multiple crossings of the same road)	0	0
		Number of other existing linear corridors crossed by the Project footprint (e.g., communication lines)	0	0
Natural Environment	Areas of Natural and Scientific Interest (ANSI)	Area of mapped candidate ANSI (Earth Science and Life Science) in the Project footprint (ha)	0.0	0.0
	Wetlands	Area of mapped wetlands <sup>(c)</sup> in the Project footprint (ha)	0.8	2.7
	Waterbodies and Watercourses <sup>(d)</sup>	Number of mapped watercourses crossed by the Project footprint	2	2
		Area of mapped waterbodies (not including watercourses) in the Project footprint (ha)	0	0
		Number of mapped waterbodies (not including watercourses) crossed by the Project footprint	0.0	0.0
	Vegetation	Area of mapped occurrences of provincially tracked vegetation species in the Project footprint (ha) <sup>(e)</sup>	0.0	0.0
		Area of natural landcover <sup>(f)</sup> (terrestrial) within the Project footprint (ha)	23.2	20.2
		Area of anthropogenic disturbance <sup>(f)</sup> within the Project footprint (ha)	0.0	0.0
		Area of natural disturbance <sup>(f)</sup> within the Project footprint (ha)	0.0	0.0
	Wildlife Habitat	Area of suitable habitat for moose in the Project footprint (ha)	14.1	9.6
		Area of suitable habitat for horned grebe in the Project footprint (ha)	0.0	0.0
		Area of suitable habitat for bald eagle in the Project footprint (ha)	14.1	9.6
		Area of suitable habitat for Canada warbler in the Project footprint (ha)	16.8	14.9
		Area of suitable habitat for common nighthawk in the Project footprint (ha)	8.6	9.9
Natural Environment (cont'd)	Wildlife Habitat (cont'd)	Area of suitable habitat for olive-sided flycatcher in the Project footprint (ha)	14.6	9.6
		Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint (ha) <sup>(e)</sup>	0.0	0.0
		Number of spawning sites crossed by the Project footprint	0	0
		Number of fish and wildlife feeding or staging areas	0	0
	Nesting Sites	Number of bald eagle nesting sites crossed by the Project footprint	0	0
Threatened and Endangered species or their Habitat		Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery areas) in the Project footprint (ha)	0.0	0.0
		Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use areas) in the Project footprint (ha)	0.0	0.0
		Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use and nursery overlap areas) in the Project footprint (ha)	0.0	0.0
		Area of mapped Caribou (boreal population) Category 2 seasonal range habitat in the Project footprint (ha)	0.0	0.0
		Area of mapped Caribou (boreal population) Category 3 habitat in the Project footprint (ha)	23.2	20.2

**APPENDIX A: METRICS TABLES**  
Phase 2 Connecting 17 Remote First Nations Communities  
Assessment of Revisions to less than 115 kV Section

Factor	Metric Category	Metrics	Pickle Lake Subsystem	
			Alignment Around Kingfisher Lake First Nation	
			KF1 (Amended Project Footprint)	KF2 (Project Footprint Considered in the Final ESR)
		Area of Caribou (boreal population) travel corridors (Spring; April) crossed by the Project footprint (ha)	0.0	0.0
		Area of Caribou (boreal population) travel corridors (Fall; November) crossed by the Project footprint (ha)	0.0	0.0
		Area of suitable wolverine habitat in the Project footprint (ha)	23.2	20.2
		Area of suitable maternity roosting habitat for little brown myotis in the Project footprint (ha)	7.8	5.0
		Number of potential bat hibernacula crossed by the Project footprint (identified through aerial reconnaissance – see Section 6.3 of the Final ESR)	Not surveyed	0
		Area of suitable habitat for bank swallow in the Project footprint (ha)	Not surveyed	0.0
Land Use, Resource Management	Land Designations	Area of Enhanced Management Areas within the Project footprint (ha)	0.0	0.0
		Area of active, inactive, or abandoned mines in the Project footprint (ha)	0.0	0.0
		Number of mining claims crossed by the Project footprint	0	0
		Area of active mining claims in the Project footprint (ha)	0.0	0.0
		Area of existing aggregate pits in the Project footprint (ha)	0.0	0.0
		Number of mapped trails crossed by the Project footprint <sup>(g)</sup>	0	0
		Length of mapped trails crossed by the Project footprint (km)	0.0	0.0
Socio-economic and cultural	Points of Reception <sup>(g)</sup>	Number of potential receptor points within 1 km of a Project substation <sup>(h)</sup>	No substation located within this section of the alignment	
	Tourism and Recreation	Number of MNRF trapper cabin locations	0	0
		Area of tourism establishment areas crossed by the Project footprint (ha)	0.0	0.0
		Recreation points crossed by the Project footprint <sup>(i)</sup>	0	0
		Number of BHA crossed by the Project footprint	0	0
		Area of BHA crossed by the Project footprint (ha)	0.0	0.0
	Archaeology and Cultural Heritage	Number of archaeological sites crossed by the Project footprint <sup>(j)</sup>	0	0
Area of archaeological potential (ha) within the Project footprint		0.6	0.0	
Indigenous Considerations	Traditional Land and Resource Use, including spiritual or cultural sites <sup>(k)</sup>	Traditional land and resource use features shared by First Nations communities crossed by the Project footprint, classified as features to be avoided	<b>Kingfisher Lake First Nation</b> ■ The routing crosses two types of identified TLRU values not classified as 'avoid'	<b>Kingfisher Lake First Nation</b> The routing crosses two types of identified TLRU values not classified as 'avoid'

Note:

a) All wetlands are understood to be unevaluated.

b) In employing a conservative approach, this assessment assumes that all waterbodies and watercourses have the potential to support fish and fish habitat.

c) Areas are considered based on "element and species occurrence and observation" datasets that record observations for species listed by MNRF as provincially tracked by the Natural Heritage Information Centre.

d) Natural landcover (terrestrial) includes the following landcover classes: bog – open, bog – treed, fen – open, fen – treed, forest – dense coniferous, forest – dense deciduous, forest – dense mixed, forest – regenerating depletion and forest – sparse. Anthropogenic disturbance includes the following land cover classes: forest depletion – cuts and settlement/infrastructure. Natural disturbance includes the forest depletion – burns land cover class.

e) Mapped trails include non-OTN trails available through LIO. No OTN trails were identified as being crossed by the defined corridors.

f) Points of reception were identified considering LIO datasets defining the locations of buildings, as well as locations of structures defined through the traditional and resource use study.

g) Recreation points are defined as access points, beaches, boat caches of all types, boat houses, designated campsites and picnic sites.

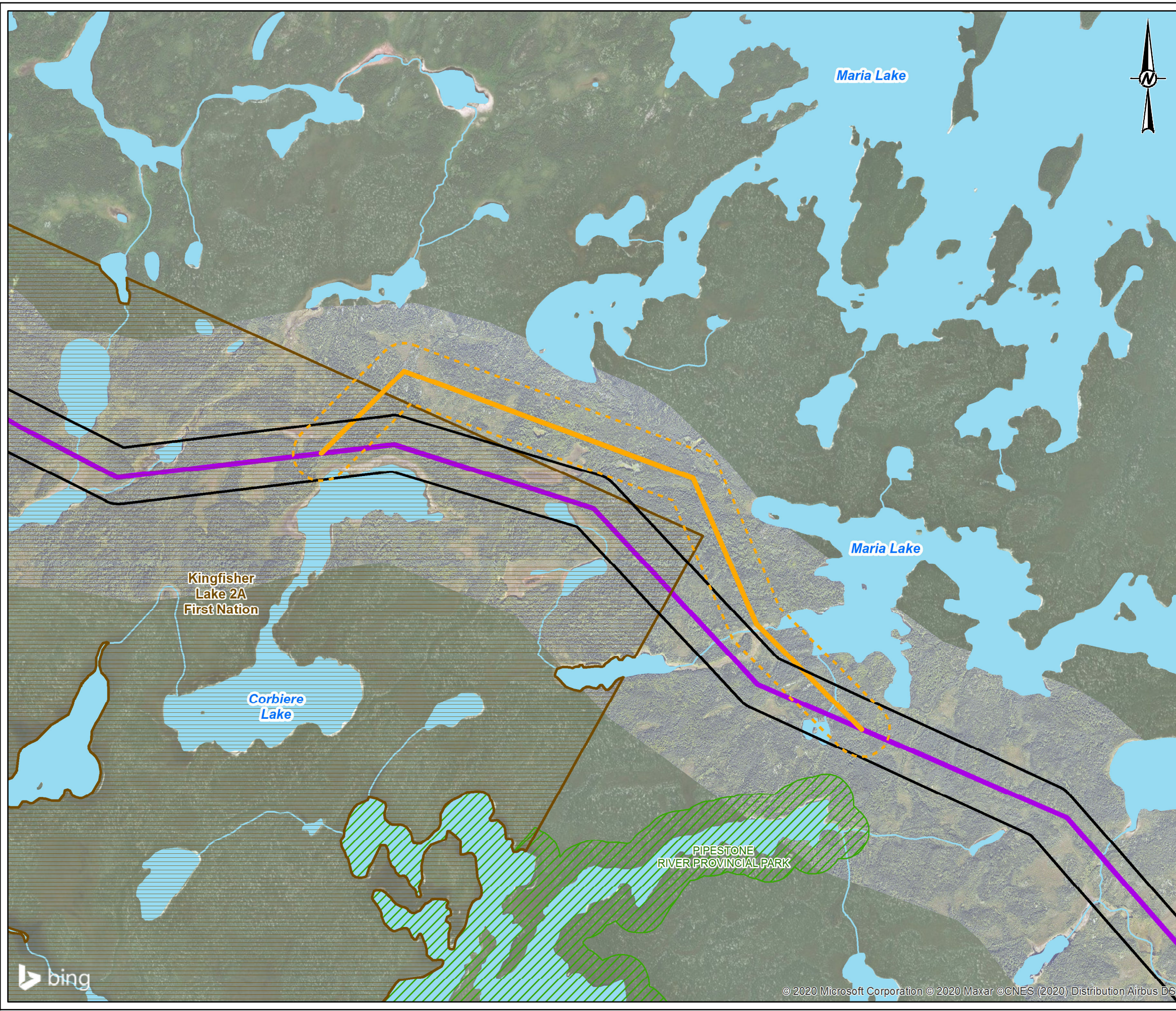
h) Archaeological site data may not be released publicly without the express permission of the Ministry of Tourism, Culture, and Sport to protect the integrity of these sites.

i) See Section 8.0 of the Draft ESR for further information on traditional land and resource use information collected for the Project.

ROW = right-of-way; km = kilometres; ha = hectares; ANSI = Area of Natural Significance and Interest; OTN = Ontario Trail Network; BHA = bait harvest areas.

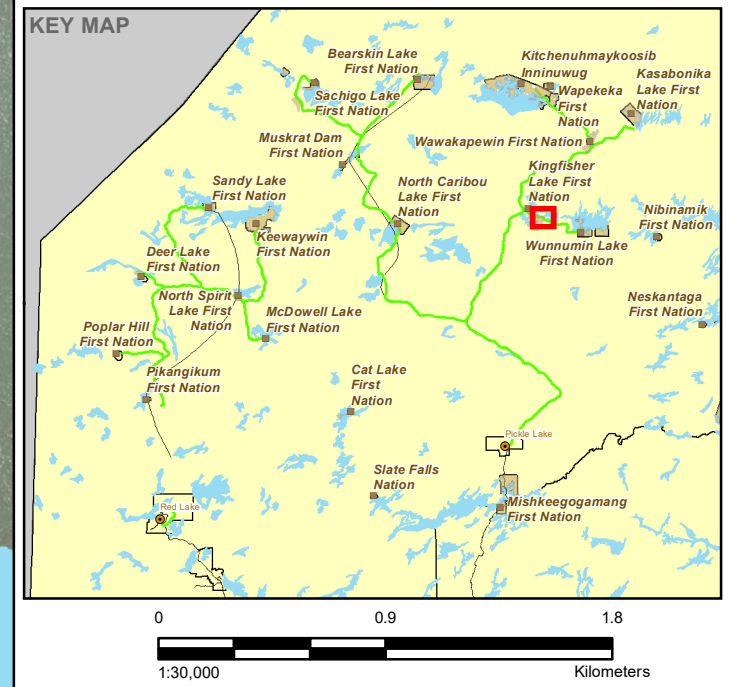
# **APPENDIX B**

## **Corridor Refinement Figures**



**LEGEND**

- Proposed 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Re-route Limits of Work Boundary
- Current Project Footprint**
- 44 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Limits of Work Boundary
- Watercourse
- Waterbody
- Provincial Parks
- First Nations Reserve



**NOTE(S)**

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.
2. ALL LOCATIONS ARE APPROXIMATE.
3. NOT FOR ENGINEERING PURPOSES.

**REFERENCE(S)**

1. BASE DATA - MNR LIO, OBTAINED 2016/2017, NTDB
2. TRANSMISSION ROUTES - PROVIDED BY WATAYNIKANEYAP POWER L.P.
3. FIRST NATION COMMUNITIES FROM INDIGENOUS AND NORTHERN AFFAIRS CANADA (WWW.AINC-INAC.GC.CA)
4. PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2016
5. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 15

**CLIENT**  
WATAYNIKANEYAP POWER L.P.

**PROJECT**  
PHASE 2: CONNECTING 17 REMOTE FIRST NATION COMMUNITIES

**TITLE**  
ALIGNMENT AT KINGFISHER LAKE FIRST NATION

CONSULTANT	DATE	REVISION
	YYYY-MM-DD	2020-09-14
	DESIGNED	SO
	PREPARED	SO
	REVIEWED	JMC
	APPROVED	BT

S:\Clients\Wataynikaneyp\Power\Phase2 - Transmission - Line09 - PRC\1544751 - Phase 2 - EAO\0 - PRC\0008 - EAO\ProjectDescription\Water - Resources\1544751-0008-PP-CC-0002 - Phase2 - WaterResources - Mapbook.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 28mm

