

Final Environmental Study Report for the Phase 2 Connecting 17 Remote First Nation Communities Project

Comparative Analysis of Revised Route for Four Areas of 115 kV Transmission Line Corridors



Report Number: 20138626

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Letter from Chief Donny Morris, Kitchenuhmaykoosib Inninuwug

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 work³ or changes that are inconsistent with the results of the EA; Wataynikaneyap will engage with the MNRF and the MOECC⁴ to discuss potential required procedures. These are discussed in Section 5.8 of the MNRF RSFD Class EA, Section 6.8 of the MNRF PPCR Class EA and Section 3.9 of the Hydro One Class EA.

On July 10, 2019, Wataynikaneyap filed a Final ESR addendum under the Hydro One Class EA for Minor Transmission. That addendum, herein referred to as the “2019 Addendum” provided a comparative analysis of three changes to the Phase 2 transmission line right-of-way (ROW) alignment that were outside the limits of work of the alignment assessed in the Final ESR. The 2019 Addendum concluded that the changes proposed did not change the results or mitigation presented in the Final ESR. The addendum was released with a 15-day comment period ending July 25, 2019, for targeted review by the First Nations directly affected by the proposed changes as well as agencies and other stakeholder groups who commented on the Final ESR. No comments were received during the review period on the 2019 Addendum, the document was approved on August 2, 2019, and Wataynikaneyap was able to proceed with implementing the proposed changes.

This document, herein referred to as the “2020 Comparative Analysis”, will adhere to the commitments made in Section 13.0 of the Final ESR, following the comparative analysis methodology established in the 2019 Addendum. As outlined in Section 3.9 of the Class EA for Minor Transmission (Ontario Hydro 1992), the purpose of an addendum is to “document the circumstances necessitating the change, the environmental effects caused by the change and what can be done to mitigate any negative impacts”. This 2020 Comparative Analysis achieves these requirements by presenting an overview of the proposed design changes and providing an analysis of the Project footprint changes compared with the Project footprint assessed in the Final ESR and 2019 Addendum, including consideration of relevant mitigation measures, where applicable.

1.1 Description of Project Design Refinements

Since the release of the Final ESR and completion of the 2019 Addendum and based on input from First Nations, Wataynikaneyap has identified four areas to improve the alignment of the 115-kV transmission line, specifically:

- An approximately 7 km long section of the right-of-way (ROW) alignment east of North Spirit Lake First Nation, to address terrain constraints and avoid a sensitive area identified by the community;
- An approximately 7 km long section of the ROW alignment north of Wawakapewin First Nation, as requested by the community;
- An approximately 5.5 km long section of the ROW alignment at the Fawn River crossing south of Kitchenuhmaykoosib Inninuwug (KI), as requested by KI; and

³ 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.

⁴ 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).

- An approximately 4.2 km long section of the ROW alignment east of Muskrat Dam First Nation, as requested by Muskrat Dam First Nation.

Figure 1 and 4 in Appendix B show each of the four areas of proposed revisions compared to the current approved alignments, along with a corresponding 200m limits of work defined on either side of the 40-m-wide alignment right-of-way. The limits of work is defined such that if potential further location revisions to the ROW alignment are required to reflect field conditions, these would be limited to the area within this limits of work.

2.0 METHOD FOR THE ANALYSIS OF PROJECT REFINEMENTS

The method used for the comparative analysis is consistent with the assessment of corridor alternatives presented in Section 3.10 and Appendix 3.11A of the Final ESR, as well as the 2019 Addendum. 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 complete list of calculated metrics used to support the corridor refinement analysis are presented in Appendix A (including zero values). These represent publicly available datasets and datasets collected for the Project relevant to the study areas for the analysis of these corridors. 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 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 changes to the substations proposed for the Project are not proposed 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.

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 and Wataynikaneyap with their contractor(s) will adhere to all permits and approvals required for the Project.

3.0 PROJECT REFINEMENT COMPARATIVE ANALYSIS RESULTS

The objectives of this section are to discuss the rationale for the refinement of the 115 kV, 40-m-wide transmission line alignment outside of the limits of work defined in the Final ESR; provide an analysis of environmental metrics for the areas of the Project footprint refinement compared with an equivalent section of the Project footprint within the Final ESR; and characterize any differences in the potential environmental effects of the change compared with the assessment provided in the Final ESR and 2019 Addendum.

This section presents the comparative analysis for the following areas:

Red Lake subsystem:

- ROW alignment east of North Spirit Lake First Nation.

Pickle Lake subsystem:

- ROW alignment north of Wawakapewin First Nation;
- ROW alignment at the Fawn River crossing south of KI; and
- ROW alignment southeast of Muskrat Dam First Nation.

The amended Project footprint may be further refined during detailed design within the limits of work presented in the Final ESR, the 2019 Addendum and in this 2020 Comparative Analysis (Figures 1-4; Appendix B) 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 Section 9.0 Environmental and Social Management Plan of the Final ESR and adhere to all permits and approvals required for the Project.

3.1 Red Lake Subsystem

3.1.1 Alignment East of North Spirit Lake First Nation

The route for the Project segment identified as the *Alignment East of North Spirit Lake First Nation* (Figure 1) has been refined based on engagement with North Spirit Lake First Nation relating to additional LiDAR/aerial imagery Wataynikaneyap has acquired.

During the engagement process of the EA, a large high use area including a sensitive use area was identified along the south bay of North Spirit Lake in proximity of the Project. Through this section of the Project, Wataynikaneyap's intention was to align the transmission line alignment ROW with the road to Keewaywin First Nation, which was under design/construction. The design of the Keewaywin Road east of North Spirit Lake First Nation is aligned further south of the preliminary design which had contributed to Wataynikaneyap's early route planning. To confirm that the transmission line could be built aligned with the Keewaywin Road ROW, and following completion of the Final ESR for the Phase 2 Project, acquisition of additional aerial imagery and LiDAR data was required, as the road traversed an area outside of Wataynikaneyap's data capture area for the Project. Once this data was acquired, it was determined that the new road to Keewaywin First Nation traversed several low-lying areas that were unsuitable for transmission line construction. Accordingly, through 2019 and 2020 Wataynikaneyap engaged with North Spirit Lake First Nation to identify a revised alignment. This revised alignment is located between the final Keewaywin Road to the south and the approval alignment close to North Spirit Lake to the north, presented in Figure 1 (Appendix B). This revised alignment avoids the sensitive use area

by the community-prescribed 500 m setback, while reducing overall land disturbance by reducing line length. A summary of relevant correspondence with North Spirit Lake First Nation is presented in Table 1.

Table 1: Key Communication Summary - Alignment South of North Spirit Lake First Nation

| Date | Method of Communication | Summary |
|---------------|-------------------------|--|
| Sept 10, 2019 | In-person meeting | Wataynikaneyap met with North Spirit Lake First Nation Chief and Council and community Elders to review online mapping and generate potential routing solutions for the highly sensitive site around the South Bay area. |
| Feb 27, 2020 | In-person meeting | Held community meeting that was also attended by the Chief and several council members to confirm preferred routing option. |

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 2. The full set of metrics considered is presented in Appendix A.

Table 2: Corridor Refinement Analysis – Alignment East of North Spirit Lake First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------|--|--|--|
| | Alignment South of North Spirit Lake First Nation | | |
| | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Technical | Size^(a) <ul style="list-style-type: none"> ROW is approximately 6.9 km in length. The Project footprint has an area of approximately 29.0 ha. | Size <ul style="list-style-type: none"> ROW is approximately 7.3 km in length. The Project footprint has an area of 30.2 ha. | <ul style="list-style-type: none"> NSL1 is slightly shorter and covers less area than NSL2. |
| Natural Environment | Area of Natural or Scientific Interest (ANSI) <ul style="list-style-type: none"> The Project footprint crosses 6.8 ha of mapped Candidate ANSI. | Area of Natural or Scientific Interest (ANSI) <ul style="list-style-type: none"> The Project footprint crosses 6.7 ha of mapped Candidate ANSI. | <ul style="list-style-type: none"> The western end of both footprints cross an area of the Harling Creek Valley candidate earth science ANSI. 0.2% of the total area of this candidate ANSI is crossed by the NSL1 Project footprint. |
| | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 11.6 ha of mapped, unevaluated wetlands. | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 3.7 ha of mapped, unevaluated wetlands. | <ul style="list-style-type: none"> The Project footprint of NSL1 crosses a larger area of mapped, unevaluated wetlands. |
| | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses four mapped watercourses. The Project footprint crosses one mapped waterbody^(c) for an area of 0.6 ha. | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses three mapped watercourses. The Project footprint crosses one waterbody^(c) for an area of <0.1 ha. | <ul style="list-style-type: none"> NSL1 crosses slightly more waterbodies and watercourses. |

Table 2: Corridor Refinement Analysis – Alignment East of North Spirit Lake First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------------|---|---|---|
| | Alignment South of North Spirit Lake First Nation | | |
| | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Natural Environment (cont'd) | Vegetation^(d) <ul style="list-style-type: none"> ■ The Project footprint crosses: <ul style="list-style-type: none"> ■ 28.4 ha of natural landcover (terrestrial) ■ <0.1 ha of natural disturbance | Vegetation^(d) <ul style="list-style-type: none"> ■ The Project footprint crosses: <ul style="list-style-type: none"> ■ 30.2 ha of natural landcover (terrestrial) | <ul style="list-style-type: none"> ■ The Project footprint of NSL1 crosses a slightly smaller area of natural landcover. |
| | Wildlife Habitat^(e) <ul style="list-style-type: none"> ■ The Project footprint crosses 16.6 ha of potential suitable moose habitat. ■ The Project footprint crosses 1.3 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 16.6 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 12.4 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 9.0 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 19.4 ha of potential suitable olive-sided flycatcher habitat. | Wildlife Habitat <ul style="list-style-type: none"> ■ The Project footprint crosses 19.1 ha of potential suitable moose habitat. ■ The Project footprint crosses <0.1 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 19.5 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 11.8 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 8.0 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 20.5 ha of potential suitable olive-sided flycatcher habitat. | |

Table 2: Corridor Refinement Analysis – Alignment East of North Spirit Lake First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------------|--|--|---|
| | Alignment South of North Spirit Lake First Nation | | |
| | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Natural Environment (cont'd) | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 29.0 ha of mapped Category 3 habitat. | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 30.2 ha of mapped Category 3 habitat. | <ul style="list-style-type: none"> NSL1 crosses a slightly larger area of Category 3 habitat. Neither footprint cross areas of Category 1 or 2 habitat. No discernable difference between the Project footprints of NSL1 and NSL2. |
| | Threatened and endangered species or their habitat (Wolverine)^(e) <ul style="list-style-type: none"> The Project footprint crosses 28.4 ha of potential wolverine habitat. | Threatened and endangered species or their habitat (Wolverine) <ul style="list-style-type: none"> The Project footprint crosses 30.2 ha of potential wolverine habitat. | <ul style="list-style-type: none"> NSL1 crosses a slightly smaller area defined as potential wolverine habitat. No discernable difference between the Project footprints of NSL1 and NSL2. |
| | Threatened and endangered species or their habitat (Little brown myotis)^(e) <ul style="list-style-type: none"> The Project footprint crosses 0.6 ha of potential little brown myotis maternity roost habitat. | Threatened and endangered species or their habitat (Little brown myotis) <ul style="list-style-type: none"> The Project footprint crosses 2.9 ha of potential little brown myotis maternity roost habitat. | <ul style="list-style-type: none"> The Project footprint of NSL1 crosses a smaller area of potential little brown myotis maternity roost habitat. |
| Socio-economic | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 1.2 ha of land with archaeological potential. | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 0.5 ha of land with archaeological potential. | <ul style="list-style-type: none"> The Project footprint for NSL1 crosses a slightly larger area of archaeological potential than the Project footprint of NSL2. Areas of archaeological potential crossed by the Project footprint for NSL1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction. |
| Indigenous Considerations | Traditional Land and Resource Use <u>North Spirit Lake First Nation</u> <ul style="list-style-type: none"> Two types of identified TLRU values crossed by the Project footprint | Traditional Land and Resource Use <u>North Spirit Lake First Nation</u> <ul style="list-style-type: none"> Two types of identified TLRU values crossed by the Project footprint. Recent (post-EA) information shared by the community identified concern with the proximity of this route to a high-use area. | <ul style="list-style-type: none"> Both options cross areas of land use and adhere to the community request for a 500 m setback from a sensitive area. NSL1 was identified by the community as preferred with further proximity from high use and sensitive areas. |

- 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.
- e) Based on habitat modelling – see Section 6.3 of the Final ESR.

The proposed realignment (NSL1) results in a small decrease in the length of the ROW (0.4 km) and Project footprint area (1.2 ha). NSL1 has been identified by North Spirit Lake First Nation as the preferred route as it provides a greater setback distance from an identified sensitive area near the south bay of North Spirit Lake. The natural environment metrics presented in Table 2 for the NSL1 Project footprint generally result in decreased effects, as the Project footprint for NSL1 intersects a smaller area of natural landcover and potential suitable habitat for moose, bald eagle, olive-sided flycatcher, wolverine and maternity roost habitat for little brown myotis. NSL1 crosses similar landcover types (dense coniferous and sparse forest) as NSL2, with slightly higher areas of wetlands and slightly more watercourse and waterbodies crossed. No potential hibernacula were identified within the limits of work around the NSL2 segment; specific hibernacula surveys have not been completed along option NSL1. The Project footprint for NSL1 does cross slightly higher area of potentially suitable horned grebe, Canada warbler and common nighthawk habitat, as well as areas of archaeological potential.

Construction and operation and maintenance activities for the NSL1 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.

Although the Project footprint for NSL1 does result in increases to some metrics, 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. Wataynikaneyap with their contractor(s) will adhere to all permits and approvals required for the Project. Therefore, in alignment with community preference, the proposed NSL1 Project footprint realignment is preferred for the area east of North Spirit Lake First Nation.

In addition to implementing the revised route, Wataynikaneyap proposes an equivalent amendment to the limits of work area on each side of the 40-m-wide transmission line alignment ROW. The full set of metrics applied to the route revision comparison has been run against the limits of work area around NSL1 and is presented in Appendix A (Table A-3). The limits of work area around NSL1 intersects with the same metrics presented in Table 2, including intersection with the Harling Creek Valley candidate earth science ANSI, areas of wetland, watercourses and waterbodies, similar wildlife areas, areas of archaeological potential. Therefore, should Wataynikaneyap require realignment within the limits of work during construction, it is predicted that the potential effects will reach the same conclusions and consider implementation of the same commitments identified above.

3.2 Pickle Lake Subsystem

3.2.1 Alignment North of Wawakapewin First Nation

The route for the Project segment identified as the *Alignment North of Wawakapewin First Nation* (Figure 2) has been refined based on input Wataynikaneyap has received through engagement with Wawakapewin First Nation.

After receipt of EA approval in June 2019, new concerns were expressed by Wawakapewin First Nation community leadership about the proposed river crossing location north of the community. In December 2016, during the engagement process of the EA, a community Elder identified a more northerly potential route from what was proposed that avoids a rapids area at the river crossing, an area frequently used by community members. In October 2019, community leadership indicated that this is the route they would like to see implemented. The adjusted alignment presented in Figure 2 (Appendix B) was established through collaboration with community leadership, including Chief, band council and Wawakapewin First Nation’s consultants, as well as with the broader community members, through a series of in-person meetings from November 2019 to March 2020. A summary of relevant correspondence with Wawakapewin First Nation is presented in Table 3.

Table 3: Key Communication Summary - Alignment North of Wawakapewin First Nation

| Date | Method of Communication | Summary |
|--------------|-------------------------|--|
| Sept 2016 | In-person meeting | Round 1 EA engagement. During this meeting it was determined that the line routing should shift to follow more closely the fiber optic route and away from sensitive hunting areas north of the reserve. |
| Oct 3, 2019 | In-person meeting | Met with community founding elder who resided in Kasabonika Lake First Nation at that time, to hear routing concern triggered by 28(2) permit sign-off request. Meeting included Chief and head councillor. |
| Nov 12, 2019 | In-person meeting | Met with Chief and Head Councillor at Delta Hotel in Thunder Bay to review routing history and context for Oct 3, 2019 request. |
| Nov 18, 2019 | In-person meeting | Met with Wawakapewin First Nation Chief and head councillor at the Wataynikaneyap office. This meeting was to review the proposed route adjustment and ensure consensus on key facts and messages. |
| Dec 19, 2019 | In-person meeting | Met with Wawakapewin team in Sioux Lookout to finalize understanding and routing. |
| Mar 12, 2019 | In-person meeting | Wataynikaneyap presented the proposed routing amendment to Wawakapewin community members and consultant, which included the Chief, Councillors, and founding elder that made the initial routing adjustment request. The route was confirmed during the meeting. |

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 4. The full set of metrics considered is presented in Appendix A.

Table 4: Corridor Refinement Analysis – Alignment North of Wawakapewin First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------|--|--|--|
| | Alignment North of Wawakapewin First Nation | | |
| | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Technical | Size <ul style="list-style-type: none"> ROW is approximately 7.0 km in length. The Project footprint has an area of approximately 28.1 ha. | Size <ul style="list-style-type: none"> ROW is approximately 5.7 km in length. The Project footprint has an area of 27.8 ha. | <ul style="list-style-type: none"> WFN1 has a slightly longer ROW length and smaller Project footprint than WFN2. |
| | Existing Infrastructure <ul style="list-style-type: none"> The Project footprint crosses one existing road. The road is crossed once. One other existing linear corridor is crossed by the Project footprint. | Existing Infrastructure <ul style="list-style-type: none"> The Project footprint does not cross any existing roads. One other existing linear corridor is crossed by the Project footprint. | <ul style="list-style-type: none"> One more existing road is crossed by the Project footprint defined by WFN1. |
| Natural Environment | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 6.3 ha of mapped wetlands. | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 5.4 ha of mapped wetlands. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of mapped, unevaluated wetlands than the slightly shorter Project footprint of WFN2. |
| | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses five mapped watercourses. The Project footprint crosses two mapped waterbodies^(c) for an area of 2.0 ha. | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses four mapped watercourses. The Project footprint crosses one mapped waterbody^(c) for an area of 0.8 ha. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses more and greater areas of watercourse and waterbody than WFN2; however, the crossing at WFN1 avoids an area of rapids used by the community. |
| | Vegetation^(d) <ul style="list-style-type: none"> The Project footprint crosses: <ul style="list-style-type: none"> 23.5 ha of natural landcover (terrestrial); and 2.0 ha of natural disturbance. | Vegetation^(d) <ul style="list-style-type: none"> The Project footprint crosses: <ul style="list-style-type: none"> 20.5 ha of natural landcover (terrestrial); and 1.2 ha of natural disturbance. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of natural landcover and natural disturbance than the larger Project footprint of WFN2. |

Table 4: Corridor Refinement Analysis – Alignment North of Wawakapewin First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------------|---|--|---|
| | Alignment North of Wawakapewin First Nation | | |
| | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Natural Environment (cont'd) | <p>Wildlife Habitat</p> <ul style="list-style-type: none"> The Project footprint crosses 12.6 ha of potential suitable moose habitat. The Project footprint crosses 4.2 ha of potential suitable horned grebe habitat. The Project footprint crosses 10.3 ha of potential suitable bald eagle habitat. The Project footprint crosses 11.6 ha of potential suitable Canada warbler habitat. The Project footprint crosses 11.1 ha of potential suitable common nighthawk habitat. The Project footprint crosses 12.1 ha of potential suitable olive-sided flycatcher habitat. | <p>Wildlife Habitat</p> <ul style="list-style-type: none"> The Project footprint crosses 8.8 ha of potential suitable moose habitat. The Project footprint crosses 2.0 ha of potential suitable horned grebe habitat. The Project footprint crosses 7.4 ha of potential suitable bald eagle habitat. The Project footprint crosses 12.1 ha of potential suitable Canada warbler habitat. The Project footprint crosses 11.7 ha of potential suitable common nighthawk habitat. The Project footprint crosses 8.7 ha of potential suitable olive-sided flycatcher habitat. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of potential moose, horned grebe, bald eagle and olive-sided flycatcher habitat, while the Project footprint of WFN2 crosses a slightly larger area of potential Canada warbler and common nighthawk habitat. |
| | <p>Threatened and endangered species or their habitat (Caribou (Boreal population))</p> <ul style="list-style-type: none"> The Project footprint crosses 28.1 ha of mapped Category 3 habitat. The Project footprint crosses 5.8 ha of Spring (April) travel corridor. The Project footprint crosses 9.9 ha of Fall (November) travel corridor. | <p>Threatened and endangered species or their habitat (Caribou (Boreal population))</p> <ul style="list-style-type: none"> The Project footprint crosses 27.8 ha of mapped Category 3 habitat. The Project footprint crosses 4.0 ha of Spring (April) travel corridor. The Project footprint crosses 8.1 ha of Fall (November) travel corridor. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of Category 3 woodland caribou habitat and spring and fall travel corridors. |
| | <p>Threatened and endangered species or their habitat (Wolverine)</p> <ul style="list-style-type: none"> The Project footprint crosses 25.5 ha of potential wolverine habitat. | <p>Threatened and endangered species or their habitat (Wolverine)</p> <ul style="list-style-type: none"> The Project footprint crosses 25.1 ha of potential wolverine habitat. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of potential wolverine habitat. |
| | <p>Threatened and endangered species or their habitat (Little brown myotis)</p> <ul style="list-style-type: none"> The Project footprint crosses 0.7 ha of potentially suitable little brown myotis maternity roost habitat. | <p>Threatened and endangered species or their habitat (Little brown myotis)</p> <ul style="list-style-type: none"> The Project footprint crosses 0.4 ha of potentially suitable little brown myotis maternity roost habitat. | <ul style="list-style-type: none"> The Project footprint of WFN1 crosses a larger area of potentially suitable little brown myotis maternity roost habitat. |

Table 4: Corridor Refinement Analysis – Alignment North of Wawakapewin First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------|---|--|---|
| | Alignment North of Wawakapewin First Nation | | |
| | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Socio-economic | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint 7.9 ha of land that has archaeological potential. | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint 4.1 ha of land that has archaeological potential. | <ul style="list-style-type: none"> The Project footprint for WFN1 crosses a larger area of archaeological potential than the Project footprint for WFN2. Areas of archaeological potential crossed by the Project footprint for WFN1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction. |
| Indigenous Considerations | Traditional Land and Resource Use <u>Wawakapewin First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> Two identified types of TLRU values crossed by the Project footprint. | Traditional Land and Resource Use <u>Wawakapewin First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> Two identified types of TLRU values crossed by the Project footprint. Recent (post-EA) information shared by the community identified concern with the proximity of this route to a high-use area. | <ul style="list-style-type: none"> No TLRU features classified as “avoid” were identified within the Project footprint based on data collected at the time of the EA. WFN1 was identified by the community as preferred with further proximity from high use areas near proposed water crossing. |

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 realignment (WFN1) was identified by community leadership through engagement following approval of the EA as the preferred route avoiding a high-use area of rapids by community members. The proposed realignment results in a moderate increase in the length of the ROW (1.3 km) and Project footprint area (0.3 ha). The natural environment metrics presented in Table 4 for the WFN1 Project footprint generally result in increased effects, as the Project footprint for WFN1 crosses more watercourses and waterbodies and intersects a larger area of mapped, unevaluated wetlands, natural landcover and potentially suitable habitat for moose, horned grebe, bald eagle, olive-sided flycatcher, wolverine and maternity roost habitat for little brown myotis, as well as additional intersection with woodland caribou spring and fall travel corridors and areas of archaeological potential. General habitat types are similar between WFN1 and WFN2 (dense coniferous 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 WFN1 is likely to be low. The Project footprint for WFN1 does result in decreases to some metrics, such as potentially suitable habitat for Canada warbler and common nighthawk. Stage 2 archaeological work required on the proposed realignment is estimated to occur in Q2 2021.

Construction, operation and maintenance activities for the WFN1 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. In the Final ESR, one reasonably foreseeable development in proximity to Wawakapewin First Nation was considered in the assessment of cumulative effects, the planned future Wawakapewin Airport Project (Section 4.0 of the Final ESR). The alignment of the WFN1 revision is located several kilometres from the planned airport project location and is not anticipated to contribute to cumulative effects with future development of the airport. 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 and 11.0 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. Wataynikaneyap with their contractor(s) will adhere to all permits and approvals required for the Project. Therefore, in alignment with community preference, the proposed WFN1 Project footprint realignment is preferred for the area north of Wawakapewin First Nation.

In addition to implementing the revised route, Wataynikaneyap proposes an equivalent amendment to the limits of work area on each side of the 40-m-wide transmission line alignment ROW. The full set of metrics applied to the route revision comparison has been run against the limits of work area around WFN1 and is presented in Appendix A (Table A-3). The limits of work area around WFN1 intersects with the same metrics presented in Table 2, including intersection with areas of wetland, watercourses and waterbodies, similar wildlife areas, intersection with woodland caribou spring and fall travel corridors, and areas of archaeological potential. Therefore, should Wataynikaneyap require realignment within the limits of work during construction, it is predicted that the potential effects will reach the same conclusions and consider implementation of the same commitments identified above.

3.2.2 Alignment at the Fawn River Crossing south of Kitchenuhmaykoosib Inninuwug (KI)

The route for the Project segment identified as the *Crossing at Fawn River* (Figure 3) has been refined based on input Wataynikaneyap has received through engagement with KI and Wapekeka First Nation.

In January 2019, new concerns were expressed by KI community leadership regarding the crossing of the transmission line at Fawn River, located south of the community. Per input received from the community through engagement, the approved EA alignment is located near several culturally significant features. On May 1, 2019 Wataynikaneyap received a letter and proposed reroute mapping from Chief Donny Morris directing that an alternate crossing further north of the existing alignment at Fawn River be explored in collaboration with the community (Appendix C). From May 27-31, 2019 additional interviews with 20 individual users of land near the Fawn River area were conducted. The information from those interviews, in conjunction with a flight over Fawn

River on March 10, 2020 were used to refine the Fawn River routing adjustment, presented in Figure 3 (Appendix B). A summary of relevant correspondence with KI and Wapekeka First Nation is presented in Table 5.

Table 5: Key Communication Summary - Alignment at the Fawn River Crossing South of KI

| Date | Method of Communication | Summary |
|-----------------|-------------------------|--|
| Jan 18, 2019 | In-person meeting | KI leadership and their consultants indicated to Wataynikaneyap that the planned Fawn River crossing at the bridge is not acceptable. This discussion initiated a resolution process which involved several meetings and calls. |
| Mar 29, 2019 | In-person meeting | Community meeting held in Wapekeka First Nation to discuss line routing solution options. Direction was to visit house of key elder for the area in question. Visit was completed and approval was obtained to cross the river in his area. |
| Apr 15, 2019 | In-person meeting | KI consultants suggest conceptual re-route based on information available. |
| May 1, 2019 | Letter | Wataynikaneyap received a letter and proposed route mapping from KI Chief Morris confirming that the alternate crossing further north of the existing bridge alignment at Fawn River be explored in collaboration with the community. |
| May 27-31, 2019 | In-person meetings | Additional TLRU interviews and mapping exercises were conducted with 20 KI community members, identifying areas of historical use and other values to be avoided, exploring a potential routing solution near Chief Morris' request. |
| Jul 2, 2019 | email | KI and Wataynikaneyap sign Process Agreement |
| Jan 7, 2020 | email | KI consultants provide draft analysis of May 2019 interviews and initial proposed line routing adjustment. Area of open water in winter was suggested to be avoided. Minor alternate route adjustment suggested. |
| Mar 10, 2020 | In-person meeting | Wataynikaneyap fly over Fawn River crossing area to investigate area of open water, inform routing adjustment finalization. Meeting held with KI Chief, Council, project lead, to discuss final routing solutions. Routing solution enabled by shift to steel structures (i.e., spanning a wider section of the river) was presented that was very close to the Apr 15, 2019 proposal (referenced in the May 1, 2019 letter). Follow-up email with meeting materials and summary of key points was provided the same day. This is route FR1 considered in this comparative analysis. |
| Jul 16, 2020 | Screen-share | Leadership and representatives from KI and Wapekeka First Nation joined Wataynikaneyap online to review the alternate crossing being presented by Wataynikaneyap. After discussions with Chiefs and representatives from both communities, the new alternate Fawn River crossing was deemed acceptable by both KI and Wapekeka First Nation and the Project is given the go-ahead to proceed with this comparative analysis. |

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 6. The full set of metrics considered is presented in Appendix A.

Table 6: Corridor Refinement Analysis – Alignment at the Fawn River Crossing

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------|--|--|--|
| | Alignment at the Fawn River Crossing | | |
| | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Technical | Size <ul style="list-style-type: none"> ■ ROW is approximately 5.4 km in length. ■ The Project footprint has an area of approximately 22.2 ha. | Size <ul style="list-style-type: none"> ■ ROW is approximately 5.6 km in length. ■ The Project footprint has an area of 22.5 ha. | <ul style="list-style-type: none"> ■ The Project footprint for FR1 is slightly smaller than the Project footprint for FR2. |
| | Existing Infrastructure <ul style="list-style-type: none"> ■ The Project footprint crosses one existing road. The road is crossed once. ■ The Project footprint crosses one existing utility corridor. | Existing Infrastructure <ul style="list-style-type: none"> ■ The Project footprint crosses two existing roads. The roads are crossed once. ■ The Project footprint does not cross any existing utility corridors. | <ul style="list-style-type: none"> ■ One fewer existing road is crossed by FR1. |
| Natural Environment | Wetlands^(a) <ul style="list-style-type: none"> ■ The Project footprint crosses 9.1 ha of mapped, unevaluated wetlands. | Wetlands^(a) <ul style="list-style-type: none"> ■ The Project footprint crosses 9.6 ha of mapped, unevaluated wetlands. | <ul style="list-style-type: none"> ■ A slightly smaller area of mapped, unevaluated wetland is crossed by FR1. |
| | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> ■ The Project footprint crosses 3 mapped watercourses. ■ The Project footprint crosses one mapped waterbodies^(c) for an area of 1.4 ha. | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> ■ The Project footprint crosses 1 mapped watercourse. ■ The Project footprint crosses one waterbody^(c) for an area of 0.3 ha. | <ul style="list-style-type: none"> ■ The Project footprint of FR1 crosses more watercourses and a larger waterbody area than FR2. |
| | Vegetation^(d) <ul style="list-style-type: none"> ■ The Project footprint crosses: <ul style="list-style-type: none"> ■ 20.2 ha of natural landcover (terrestrial). ■ 19.1 ha of mapped provincially tracked rare vegetation species. | Vegetation^(d) <ul style="list-style-type: none"> ■ The Project footprint crosses: <ul style="list-style-type: none"> ■ 21.6 ha of natural landcover (terrestrial). ■ 0.4 ha of mapped provincially tracked rare vegetation species | <ul style="list-style-type: none"> ■ The FR1 project footprint crosses a smaller area of natural land cover, but a larger area within which a mapped provincially tracked vegetation species may occur. |

Table 6: Corridor Refinement Analysis – Alignment at the Fawn River Crossing

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------------|---|---|--|
| | Alignment at the Fawn River Crossing | | |
| | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Natural Environment (cont'd) | Wildlife Habitat <ul style="list-style-type: none"> The Project footprint crosses 11.2 ha of potential suitable moose habitat. The Project footprint crosses 3.4 ha of potential suitable horned grebe habitat. The Project footprint crosses 11.2 ha of potential suitable bald eagle habitat. The Project footprint crosses 11.6 ha of potential suitable Canada warbler habitat. The Project footprint crosses 6.1 ha of potential suitable common nighthawk habitat. The Project footprint crosses 13.8 ha of potential suitable olive-sided flycatcher habitat. | Wildlife Habitat <ul style="list-style-type: none"> The Project footprint crosses 10.9 ha of potential suitable moose habitat. The Project footprint crosses 0.9 ha of potential suitable horned grebe habitat. The Project footprint crosses 10.9 ha of potential suitable bald eagle habitat. The Project footprint crosses 16.5 ha of potential suitable Canada warbler habitat. The Project footprint crosses 7.1 ha of potential suitable common nighthawk habitat. The Project footprint crosses 14.5 ha of potential suitable olive-sided flycatcher habitat. | <ul style="list-style-type: none"> The Project footprint of FR1 crosses a smaller area of Canada warbler, common nighthawk and olive-sided flycatcher habitat, but crosses a slightly larger area of moose, horned grebe and bald eagle habitat, compared with FR2. |
| | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 22.2 ha of mapped Category 2 habitat. | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 22.5 ha of mapped Category 2 habitat. | <ul style="list-style-type: none"> FR1 crosses a slightly smaller area of mapped Category 2 habitat. |
| | Threatened and endangered species or their habitat (Wolverine) <ul style="list-style-type: none"> The Project footprint crosses 20.2 ha of potential wolverine habitat. | Threatened and endangered species or their habitat (Wolverine) <ul style="list-style-type: none"> The Project footprint crosses 21.6 ha of potential wolverine habitat. | <ul style="list-style-type: none"> FR1 crosses a slightly smaller area of potential wolverine habitat. |
| | Threatened and endangered species or their habitat (Little brown myotis) <ul style="list-style-type: none"> The Project footprint crosses 2.9 ha of potential little brown myotis maternity roost habitat. | Threatened and endangered species or their habitat (Little brown myotis) <ul style="list-style-type: none"> The Project footprint crosses 5.8 ha of potential little brown myotis maternity roost habitat. | <ul style="list-style-type: none"> The Project footprint of FR1 crosses a smaller area of potential little brown myotis maternity roost habitat. |

Table 6: Corridor Refinement Analysis – Alignment at the Fawn River Crossing

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------|---|---|--|
| | Alignment at the Fawn River Crossing | | |
| | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Socio-economic | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 2.6 ha of land with archaeological potential. | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 1.4 ha of land with archaeological potential. | <ul style="list-style-type: none"> The Project footprint for FR1 crosses a larger area of archaeological potential than the Project footprint for FR2. Areas of archaeological potential crossed by the Project footprint for FR1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction. |
| Indigenous Considerations | Traditional Land and Resource Use <u>KI</u> The Project footprint crosses: <ul style="list-style-type: none"> Five identified types of TLRU values. <u>Wapekeka First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> A portion of a large area of identified TLRU values. | Traditional Land and Resource Use <u>KI</u> The Project footprint crosses: <ul style="list-style-type: none"> Four identified types of TLRU values. Recent information shared by the community identified concern with the proximity of this route to a significant area. <u>Wapekeka First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> A portion of a large area of identified TLRU values. | <ul style="list-style-type: none"> No TLRU features classified as “avoid” were identified within the Project footprint based on currently available data. However, per direction received from KI community leadership and through engagement with community members and land users, the community would like to proceed with the alignment for FR1, which avoids several culturally significant features. Therefore, the FR1 alignment is preferred. |

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 realignment (FR1) results in a small decrease in the length of the ROW (0.2 km) and Project footprint area (0.3 ha). The natural environment metrics presented in Table 6 for the FR1 Project footprint generally result in decreased effects, as the Project footprint for FR1 intersects a smaller area of mapped, unevaluated wetlands, natural landcover and potential suitable habitat for Canada warbler, common nighthawk, olive sided flycatcher, wolverine, maternity roost habitat for little brown myotis and Category 2 caribou habitat. General habitat types are similar between FR1 and FR2 (dense coniferous 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 FR1 is likely to be low. In addition, FR1 has been identified as the preferred alignment of the community of KI, as it avoids a high-use area containing sensitive cultural and community features. It is noted that FR1 crosses a larger area where provincially tracked rare

vegetation species may be found. The Final ESR notes that the area crossed by the Project footprint would represent a loss of 0.7% of available area where provincially tracked vegetation may be found within the local study area. The Final ESR also recognizes that the amount of available rare vegetation community habitat is likely overestimated where areas are defined based on a 1 km buffer around the location of historically observed species and that a small proportion of the habitat would be occupied by rare plant species. Wataynikaneyap committed in the Final ESR to engage a qualified biologist/botanist to survey the potential habitat associated with the specific element occurrences within the project footprint during the appropriate season to identify if there are rare plant populations present, in order to inform the site-specific mitigation techniques

Construction and operation and maintenance activities for the FR1 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 RFDs 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. Stage 2 archaeological work required on the proposed realignment is estimated to occur in Q2 2021.

Although the Project footprint for FR1 does result in increases to some metrics, such as watercourse and waterbody crossings and intersection with larger areas where provincially tracked rare vegetation species may be found, and area of archaeological potential, 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. Wataynikaneyap with their contractor(s) will adhere to all permits and approvals required for the Project. Therefore, in alignment with community preference, the proposed FR1 realignment is preferred for the crossing of the Fawn River south of Kitchenuhmaykoosib Inninuwug.

In addition to implementing the revised route, Wataynikaneyap proposes an equivalent amendment to the limits of work area on each side of the 40-m-wide transmission line alignment ROW. The full set of metrics applied to the route revision comparison has been run against the limits of work area around FR1 and is presented in Appendix A (Table A-3). The limits of work area around FR1 intersects with the same metrics presented in Table 2, including the area of provincially tracked vegetation. Therefore, should Wataynikaneyap require realignment within the limits of work during construction, it is predicted that the potential effects will reach the same conclusions and consider implementation of the same commitments identified above. Should adjustment within the limits of work be required for the crossing of the Fawn River, confirmation of planned adjustments with the community may be undertaken based on proximity to areas of use shared in this area.

3.2.3 Alignment Southeast of Muskrat Dam First Nation

The route for the Project segment identified as the *Alignment East of Muskrat Dam First Nation* (Figure 4) has been refined based on input Wataynikaneyap has received through engagement with Muskrat Dam First Nation.

In March 2020, new concerns were expressed by Muskrat Dam community leadership related to the alignment crossing a peninsula east of the community, the associated amount of tree clearing, spatial constraints due to a future road and bridge, and protection of archaeological sites located at this peninsula. From June to September 2020, Wataynikaneyap met with community leadership to discuss their concerns and identify potential alternatives

to the alignment assessed in the Final ESR. On September 15, 2020, direction was provided by community leadership to Wataynikaneyap to proceed with the route as shown in orange on Figure 4 (Appendix B), assuming the mitigation to archaeological resources previously discussed with the community leadership is implemented. A summary of relevant correspondence with Muskrat Dam First Nation is presented in Table 7.

Table 7: Key Communication Summary - Alignment East of Muskrat Dam First Nation

| Date | Method of Communication | Summary |
|---------------|-------------------------|--|
| Mar 12, 2020 | In-person meeting | Muskrat Dam First Nation Chief, Senior Advisor, Councillor, Archaeology Consultant, and Values Consultant met with Wataynikaneyap to convey new concerns related to spatial constraints, the amount of tree clearing, and archaeological site protection on the peninsula that extends into the Severn River. Wataynikaneyap agreed to take the concerns to the technical team for potential improvements/solutions. |
| Jun 10, 2020 | Email | Wataynikaneyap sent an email that detailed a proposed line route adjustment explaining intended improvements within the adjusted route to address the expressed concerns. Routing at the north end of the peninsula near the archaeological sites was stated to be somewhat flexible. |
| Jul 2, 2020 | Teleconference | Wataynikaneyap presented the proposed line route revision to Chief and Council as well as the Council's Senior Advisor. |
| Aug 6, 2020 | Phone call | Chief Vernon asked for further detail with respect to traversing the archaeology sites with equipment. |
| Aug 20, 2020 | In-person meeting | Wataynikaneyap and Muskrat Dam First Nation's project lead and councillor met in-person in Thunder Bay and reviewed the proposed line route change and proposed mitigation measures to cross the archaeology sites. The Project lead and councillor suggested a modification to the northern part of the route to span over top of the archaeology sites. |
| Sept 9, 2020 | Video-conference | Wataynikaneyap met with the Chief, two Councillors, and the community's Senior Advisor. A request was made to produce a map with an adjustment to the proposed route amendment on the north end of the peninsula. Archaeology site mitigation was also discussed. |
| Sept 11, 2020 | Email | Wataynikaneyap provided an updated map showing the proposed line routing as per the direction in the Sept 9, 2020 meeting. |
| Sept 15, 2020 | Video-conference | Wataynikaneyap met with the Chief, a Councillor, and the Senior Advisor who made the initial routing request. Direction was provided to proceed with the routing as shown on the Sept 11, 2020 mapping (contingent upon archaeology site mitigation from September 9 th) and that due to the minor nature of the change, and the fact that the change request came from the same leadership group, no additional community engagement was necessary. Archaeology field work was given the go-ahead to proceed. |

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 8. The full set of metrics considered is presented in Appendix A.

Table 8: Corridor Refinement Analysis - Alignment East of Muskrat Dam First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------|--|--|--|
| | Alignment east of Muskrat Dam First Nation | | |
| | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Technical | Size <ul style="list-style-type: none"> ROW is approximately 4.2 km in length. The Project footprint has an area of approximately 18.2 ha. | Size <ul style="list-style-type: none"> ROW is approximately 2.3 km in length. The Project footprint has an area of 16.1 ha. | <ul style="list-style-type: none"> The Project footprint for MD1 is slightly larger than the Project footprint for MD2. |
| Natural Environment | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 1.7 ha of mapped, unevaluated wetlands. | Wetlands^(a) <ul style="list-style-type: none"> The Project footprint crosses 0.5 ha of mapped, unevaluated wetlands. | <ul style="list-style-type: none"> The Project footprint for MD1 crosses a larger area of mapped, unevaluated wetlands. |
| | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses 1 mapped watercourse. The Project footprint crosses 3 mapped waterbodies^(c) for an area of 1.6 ha. | Waterbodies and Watercourses^(b) <ul style="list-style-type: none"> The Project footprint crosses 1 mapped watercourse. The Project footprint crosses 2 waterbodies^(c) for an area of 0.7 ha. | <ul style="list-style-type: none"> The Project footprint of MD1 crosses more waterbodies and a larger waterbody area than MD2. |
| | Vegetation^(d) <ul style="list-style-type: none"> The Project footprint crosses 13.8 ha of natural landcover (terrestrial). | Vegetation^(d) <ul style="list-style-type: none"> The Project footprint crosses 13.0 ha of natural landcover (terrestrial). | <ul style="list-style-type: none"> The Project footprint of MD1 crosses a larger area of natural landcover. |
| | Wildlife Habitat <ul style="list-style-type: none"> The Project footprint crosses 11.7 ha of potential suitable moose habitat. The Project footprint crosses 3.8 ha of potential suitable horned grebe habitat. The Project footprint crosses 13.0 ha of potential suitable bald eagle habitat. The Project footprint crosses 10.0 ha of potential suitable Canada warbler habitat. The Project footprint crosses 0.8 ha of potential suitable common nighthawk habitat. The Project footprint crosses 12.4 ha of potential suitable olive-sided flycatcher habitat. The Project footprint crosses 18.2 ha area of mapped provincially tracked wildlife species. | Wildlife Habitat <ul style="list-style-type: none"> The Project footprint crosses 11.7 ha of potential suitable moose habitat. The Project footprint crosses 4.6 ha of potential suitable horned grebe habitat. The Project footprint crosses 12.2 ha of potential suitable bald eagle habitat. The Project footprint crosses 8.1 ha of potential suitable Canada warbler habitat. The Project footprint does not cross area of potential suitable common nighthawk habitat. The Project footprint crosses 11.7 ha of potential suitable olive-sided flycatcher habitat. The Project footprint crosses 16.1 ha area of mapped provincially tracked wildlife species. | <ul style="list-style-type: none"> The Project footprint of MD1 crosses a slightly larger area of potential suitable habitat for bald eagle, nighthawk, and olive-sided flycatcher habitat, while the Project footprint of MD2 crosses a slightly larger area of potential habitat suitable for horned grebe. The MD1 project footprint crosses a larger area of a mapped provincially tracked wildlife species. |

Table 8: Corridor Refinement Analysis - Alignment East of Muskrat Dam First Nation

| Key Factors | Corridor Refinements | | Corridor Refinement Analysis |
|---------------------------------|--|---|--|
| | Alignment east of Muskrat Dam First Nation | | |
| | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | |
| Natural Environment (cont'd) | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 5.4 ha of mapped Category 2 habitat. The Project footprint crosses 12.8 ha of mapped Category 3 habitat. | Threatened and endangered species or their habitat (Caribou (Boreal population)) <ul style="list-style-type: none"> The Project footprint crosses 5.0 ha of mapped Category 2 habitat. The Project footprint crosses 11.1 ha of mapped Category 3 habitat. | <ul style="list-style-type: none"> MD1 crosses a larger area of mapped Category 2 and 3 habitat. Neither footprint crosses area of mapped Category 1 habitat. |
| | Threatened and endangered species or their habitat (Wolverine) <ul style="list-style-type: none"> The Project footprint crosses 13.8 ha of potential wolverine habitat. | Threatened and endangered species or their habitat (Wolverine) <ul style="list-style-type: none"> The Project footprint crosses 13.0 ha of potential wolverine habitat. | <ul style="list-style-type: none"> MD1 crosses a larger area of potential wolverine habitat. |
| | Threatened and endangered species or their habitat (Little brown myotis) <ul style="list-style-type: none"> The Project footprint crosses 8.9 ha of potential little brown myotis maternity roost habitat. | Threatened and endangered species or their habitat (Little brown myotis) <ul style="list-style-type: none"> The Project footprint crosses 9.3 ha of potential little brown myotis maternity roost habitat. | <ul style="list-style-type: none"> The Project footprint of MD1 crosses a smaller area of potential little brown myotis maternity roost habitat. |
| Socio-economic | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 13.6 ha of land with archaeological potential. | Archaeology and Cultural Heritage <ul style="list-style-type: none"> The Project footprint crosses 10.7 ha of land with archaeological potential. | <ul style="list-style-type: none"> The Project footprint for MD1 crosses a larger area of archaeological potential than the Project footprint for MD2. Areas of archaeological potential crossed by the Project footprint for MD1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction. |
| Indigenous Considerations | Traditional Land and Resource Use <u>Muskrat Dam First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> Four identified types of TLRU values crossed by the Project footprint <u>Sachigo Lake First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> One identified type of TLRU value crossed by the Project footprint | Traditional Land and Resource Use <u>Muskrat Dam First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> Five identified types of TLRU values crossed by the Project footprint. <u>Sachigo Lake First Nation</u> The Project footprint crosses: <ul style="list-style-type: none"> One identified type of TLRU value crossed by the Project footprint | <ul style="list-style-type: none"> No TLRU features classified as "avoid" during the EA were identified within the Project footprint based on data collected. MD1 was identified by the community as preferred alignment due to concerns related to spatial constraints, the amount of tree clearing and archaeological site protection associated with the Project footprint of MD2. |

- 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 realignment (MD1) was identified by community leadership through engagement following approval of the EA due to concerns related to spatial constraints, the amount of tree clearing, and archaeological site protection associated with the alignment assessed in the Final ESR (MD2). The proposed realignment results in a moderate increase in the length of the ROW (1.9 km) and Project footprint area (2.1 ha). The natural environment metrics presented in Table 8 for the MD1 Project footprint generally result in increased effects, as the Project footprint for MD1 crosses a larger area of mapped, unevaluated wetlands, a larger number of waterbodies. MD1 also intersects a larger area of natural landcover and potentially suitable habitat bald eagle, nighthawk, olive-sided flycatcher, wolverine, Category 2 and 3 caribou habitat, and area of a mapped provincially tracked wildlife species. General habitat types are similar between MD1 and MD2 (dense mixed 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 MD1 is likely to be low. The Project footprint for MD1 does result in decreases to some metrics, such as potentially suitable habitat for horned grebe and maternity roost habitat for little brown myotis.

Construction and operation and maintenance activities for the MD1 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 RFDs 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. Stage 2 archaeological work required on the proposed realignment is estimated to occur by Q2 2021.

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, along with additional mitigation discussed with the community during route refinement. Wataynikaneyap with their contractor(s) will adhere to all permits and approvals required for the Project. Therefore, in alignment with community preference, the proposed MD1 Project footprint realignment is preferred for the area east of Muskrat Dam First Nation.

In addition to implementing the revised route, Wataynikaneyap proposes an equivalent amendment to the limits of work area on each side of the 40-m-wide transmission line alignment ROW. The full set of metrics applied to the route revision comparison has been run against the limits of work area around MD1 and is presented in Appendix A (Table A-3). The limits of work area around MD1 intersects with the same metrics presented in Table 2; therefore, should Wataynikaneyap require realignment within the limits of work during construction, it is predicted that the potential effects will reach the same conclusions and consider implementation of the same commitments identified above.

4.0 CONCLUSION

Overall, the potential effects and mitigation measures outlined in the Final ESR and through the 2019 Addendum effectively address the proposed design changes to the alignments of the four identified segments of the 115-kV transmission line. The updated information presented in this comparative analysis do not change the results and conclusions of the net effects or cumulative effects assessments of the Final ESR. 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. In many cases, the proposed revisions to the four 115-kV transmission line segments will result in reduced environmental effects compared with the original alignment. The proposed re-alignments reflect the preferences of the Indigenous communities local to the area of each revision, are technically and economically feasible and do not result in changes to the conclusions of the Final ESR.

Accordingly, aligned with community preferences, Wataynikaneyap intends to implement the NSL1, WFN1, FR1 and MD1 route revisions.

5.0 REFERENCES

- MNR (Ontario Ministry of Natural Resources). 2005. A Class Environmental Assessment for Provincial Parks and Conservation Reserves. December 31, 2004. ISBN: 0-7794-3848-5.
- MNR. 2003. A Class Environmental Assessment for MNR Resource Stewardship and Facilities Development Project. Environmental Assessment Report Series. Queen's Printer for Ontario. Ontario, Canada.
- Ontario Hydro. 1992. Class Environmental Assessment for Minor Transmission Facilities. Pursuant to the Environmental Assessment Act. Revision 6. Report No. 89513.

APPENDIX A

Metrics Tables

Table A-1: Factors and Metrics Considered

| Factor | Metric Category | Metric |
|---------------------|--|--|
| Technical | Size | <ul style="list-style-type: none"> ■ Total length of right-of-way (ROW) centreline (km) ■ Area of Project footprint (ha) |
| | Existing Infrastructure | <ul style="list-style-type: none"> ■ Number of existing roads crossed by the Project footprint ■ Number of existing road crossings within the Project footprint ■ Number of other existing liner corridors crossed by the Project footprint (e.g., communication lines) |
| Natural Environment | Areas of Natural and Scientific Interest | <ul style="list-style-type: none"> ■ Area of mapped candidate Areas of Natural and Scientific Interest (ANSI) (Earth Science and Life Science) in the Project footprint (ha) |
| | Wetlands ^(a) | <ul style="list-style-type: none"> ■ Area of mapped wetlands in the Project footprint |
| | Waterbodies and Watercourses ^(b) | <ul style="list-style-type: none"> ■ Number of mapped watercourses crossed by the Project footprint ■ Area of mapped waterbodies (not including watercourses) in the Project footprint (ha) ■ Number of mapped waterbodies (not including watercourses) crossed by the Project footprint |
| | Vegetation | <ul style="list-style-type: none"> ■ Area of mapped occurrences of provincially tracked vegetation species in the Project footprint^(c) (ha) ■ Area of Natural Landcover (Terrestrial), Anthropogenic Disturbance, and Natural Disturbance within the Project footprint^(d) |
| | Wildlife Habitat | <ul style="list-style-type: none"> ■ Area of suitable habitat (see Section 6.3 and Appendix 6.3B 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) ■ Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint (ha) ■ Number of spawning sites crossed by the Project footprint ■ Number of fish and wildlife feeding or staging areas in the Project footprint |
| | Nesting Sites | <ul style="list-style-type: none"> ■ Number of bald eagle nesting sites crossed by the Project footprint |
| | Threatened and Endangered species or their Habitat | <ul style="list-style-type: none"> ■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery areas) in the Project footprint (ha) ■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use areas) in the Project footprint (ha) ■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery and winter use area overlap) in the Project footprint (ha) ■ Area of mapped Caribou (boreal population) Category 2 seasonal range habitat in the Project footprint (ha) |

Table A-1: Factors and Metrics Considered

| Factor | Metric Category | Metric |
|-------------------------------|---|---|
| | | <ul style="list-style-type: none"> ■ Area of mapped Caribou (boreal population) Category 3 habitat in the Project footprint (ha) ■ Area of Caribou (boreal population) travel corridors (Spring; April) crossed by the Project footprint (ha) ■ Area of Caribou (boreal population) travel corridors (Fall; November) crossed by the Project footprint (ha) ■ Area of potential suitable wolverine habitat in the Project footprint (ha)^(e) ■ Area of potential suitable maternity roosting habitat for little brown myotis in the Project footprint (ha)^(e) ■ Number of bat hibernacula with confirmed use within 500m of the Project footprint^(f) ■ Area of suitable habitat for bank swallow in the Project footprint (ha)^(e) |
| Land Use, Resource Management | Land Designation | <ul style="list-style-type: none"> ■ Area of Enhanced Management Areas within the Project footprint (ha) ■ Area of active, inactive, or abandoned mines in the Project footprint (ha) ■ Number of mining claims crossed by the Project footprint ■ Area of active mining claims in the Project footprint (ha) ■ Area of aggregate pits in the Project footprint (ha) |
| | Trails | <ul style="list-style-type: none"> ■ Number of mapped trails (OTN and non-OTN^(g)) crossed by the Project footprint ■ Length of mapped trails (OTN and non-OTN) crossed by the Project footprint (km) |
| | Points of Reception | <ul style="list-style-type: none"> ■ Number of potential receptor points within 1 km of a Project substation^(h) |
| Socio-economic and Cultural | Tourism and Recreation | <ul style="list-style-type: none"> ■ Area of tourism establishment areas crossed by the Project footprint (ha) ■ Existing buildings crossed by the Project footprint ■ Recreation points crossed by the Project footprint⁽ⁱ⁾ ■ Number of bait harvest areas (BHA) crossed by the Project footprint ■ Area of BHA crossed by the Project footprint (ha) |
| | Archaeology and Cultural Heritage | <ul style="list-style-type: none"> ■ Number of archaeological sites crossed by the Project footprint^(j) ■ Area of archaeological potential in the Project footprint (ha) |
| Indigenous Considerations | Traditional Land and Resource Use, including spiritual or cultural sites ^(k) | <ul style="list-style-type: none"> ■ 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). |

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.



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- c) Areas are considered based on “element and species occurrence and observation” datasets that record observations for species listed by MNR 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) Based on habitat modelling – see Section 6.3 of the Final ESR.
- f) Potential hibernacula were identified within the ROW-limits of work. Three locations with identified use were confirmed through acoustic monitoring, present on the Red Lake subsystem as documented through the Information Gathering Form supporting *Endangered Species Act* permitting.
- g) Mapped trails include non-OTN trails available through LIO. No OTN trails were identified as being crossed by the defined corridors.
- h) 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.
- i) Recreation points are defined as access points, beaches, boat caches of all types, boat houses, designated campsites and picnic sites.
- j) 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.
- k) 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.

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Table A- 2: Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation | | Alignment North of Wawakapewin First Nation | | Crossing at Fawn River | | Alignment East of Muskrat Dam First Nation | |
|---------------------|---|--|--|--|---|--|---------------------------------|---|--|---|
| | | | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) |
| Technical | Size | Total length of right-of-way (ROW) centreline (km) | 6.9 | 7.3 | 7.0 | 5.7 | 5.4 | 5.6 | 4.2 | 2.3 |
| | | Area of Project footprint (ha) | 29.0 | 30.2 | 28.1 | 27.8 | 22.2 | 22.5 | 18.2 | 16.1 |
| | Existing Infrastructure | Number of existing roads within the Project footprint | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 |
| | | Number of existing road crossings within the Project footprint | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 |
| | | Number of other existing linear corridors crossed by the Project footprint (e.g., communication lines) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Natural Environment | Areas of Natural and Scientific Interest | Area of mapped candidate Areas of Natural and Scientific Interest (ANSI) in the Project footprint (ha) | 6.8 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Wetlands ^(a) | Area of mapped wetlands in the Project footprint (ha) | 11.6 | 3.7 | 6.3 | 5.4 | 9.1 | 9.6 | 1.7 | 0.5 |
| | Waterbodies and Watercourses ^(b) | Number of mapped watercourses crossed by the Project footprint | 4 | 3 | 5 | 4 | 3 | 1 | 1 | 1 |
| | | Number of mapped waterbodies crossed by the Project footprint | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 2 |
| | | Area of mapped waterbodies (not including watercourses) in the Project footprint (ha) | 0.6 | <0.1 | 2.0 | 0.8 | 1.4 | 0.3 | 1.6 | 0.7 |
| | Vegetation ^(d) | Area of mapped occurrences of provincially tracked vegetation species in the Project footprint ^(c) (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 19.1 | 0.4 | 0.0 | 0.0 |

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| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation | | Alignment North of Wawakapewin First Nation | | Crossing at Fawn River | | Alignment East of Muskrat Dam First Nation | |
|---|------------------------------------|--|--|--|---|--|---------------------------------|---|--|---|
| | | | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) |
| Natural Environment (cont'd) | Vegetation ^(d) (cont'd) | Areas of natural landcover (terrestrial) within the Project footprint (ha) | 28.4 | 29.0 | 23.5 | 20.5 | 20.2 | 21.6 | 13.8 | 13.0 |
| | | Area of anthropogenic disturbance within the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of natural disturbance within the Project footprint (ha) | <0.1 | 0.0 | 2.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Wildlife Habitat | Area of suitable habitat for moose in the Project footprint (ha) | 16.6 | 19.1 | 12.6 | 8.8 | 11.2 | 10.9 | 11.7 | 11.7 |
| | | Area of suitable habitat for homed grebe in the Project footprint (ha) | 1.3 | <0.1 | 4.2 | 2.0 | 3.4 | 0.9 | 3.8 | 4.6 |
| | | Area of suitable habitat for bald eagle in the Project footprint (ha) | 16.6 | 19.5 | 10.3 | 7.4 | 11.2 | 10.9 | 13.0 | 12.2 |
| | | Area of suitable habitat for Canada warbler in the Project footprint (ha) | 12.4 | 11.8 | 11.6 | 12.1 | 11.6 | 16.5 | 10.0 | 8.1 |
| | | Area of suitable habitat for common nighthawk in the Project footprint (ha) | 9.0 | 8.0 | 11.1 | 11.7 | 6.1 | 7.1 | 0.8 | 0.0 |
| | | Area of suitable habitat for olive-sided flycatcher in the Project footprint (ha) | 19.4 | 20.5 | 12.1 | 8.7 | 13.8 | 14.5 | 12.4 | 11.7 |
| | | Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 16.1 |
| Number of spawning sites crossed by the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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Table A- 2: Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation | | Alignment North of Wawakapewin First Nation | | Crossing at Fawn River | | Alignment East of Muskrat Dam First Nation | |
|---|--|--|--|--|---|--|---------------------------------|---|--|---|
| | | | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) |
| Natural Environment (cont'd) | Wildlife Habitat (cont'd) | Number of fish and wildlife feeding or staging areas in the Project footprint | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Nesting Sites | Number of bald eagle nesting sites crossed by the Project footprint | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Threatened and Endangered species or their Habitat | Area of mapped woodland caribou Category 1 high-use habitat (nursery areas) in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of mapped woodland caribou Category 1 high-use habitat (winter use areas) in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of mapped woodland caribou Category 2 seasonal range habitat in the Project footprint (ha) | 29.0 | 30.2 | 28.1 | 27.8 | 22.2 | 22.5 | 5.4 | 5.0 |
| | | Area of mapped woodland caribou Category 3 habitat in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 11.1 |
| | | Area of woodland caribou travel corridors (Spring; April) crossed by the Project footprint (ha) | 0.0 | 0.0 | 5.8 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of woodland caribou travel corridors (Fall; November) crossed by the Project footprint (ha) | 0.0 | 0.0 | 9.9 | 8.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Area suitable wolverine habitat in the Project footprint (ha) | 28.4 | 30.2 | 25.5 | 25.1 | 20.2 | 21.6 | 13.8 | 13.0 | | |

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Table A- 2: Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation | | Alignment North of Wawakapewin First Nation | | Crossing at Fawn River | | Alignment East of Muskrat Dam First Nation | |
|-------------------------------|---|---|--|--|--|--|--|---|--|---|
| | | | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) |
| Natural Environment (cont'd) | Threatened and Endangered species or their Habitat (cont'd) | Area of suitable maternity roosting habitat for little brown myotis in the Project footprint (ha) | 0.6 | 2.9 | 0.7 | 0.4 | 2.9 | 5.8 | 8.9 | 9.3 |
| | | Number of bat hibernacula confirmed within 500 m of the Project footprint ^(f) | Not surveyed | 0.0 | Not surveyed | 0.0 | Not surveyed | 0.0 | Not surveyed | 0.0 |
| Land Use, Resource Management | Land Designation | Area of Enhanced Management within the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of active, inactive, or abandoned mines in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Number of mining claims crossed by the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Area of active mining claims in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of aggregate pits in the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Trails | Number of mapped trails crossed by the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Length of mapped trails ^(g) crossed by the Project footprint (km) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Socio-economic and Cultural | Tourism and Recreation | Number of MNRF trapper cabin locations | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Area of tourism establishment areas crossed by the Project road footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Recreation points crossed by the Project footprint ^(h) | No substation within the area of the alignment | | No substation within the area of the alignment | | No substation within the area of the alignment | | No substation within the area of the alignment | |

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Table A- 2: Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation | | Alignment North of Wawakapewin First Nation | | Crossing at Fawn River | | Alignment East of Muskrat Dam First Nation | |
|--------------------------------------|--|--|---|--|---|--|---|---|---|---|
| | | | NSL1 (Amended Project Footprint) | NSL2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | WFN1 (Amended Project Footprint) | WFN2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | FR1 (Amended Project Footprint) | FR2 (Project Footprint Considered in the Final ESR and 2019 Addendum) | MD1 (Amended Project Footprint) | MD2 (Project Footprint Considered in the Final ESR and 2019 Addendum) |
| Socio-economic and Cultural (cont'd) | Tourism and Recreation (cont'd) | Number of buildings within the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Number of bait harvest areas (BHA) crossed by the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Area of BHA crossed by the Project footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Archaeology and Cultural Heritage | Number of archaeological sites ⁽ⁱ⁾ crossed by the Project footprint | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Area of archaeological potential in the Project footprint (ha) | 1.2 | 0.5 | 7.9 | 4.1 | 2.6 | 1.4 | 13.6 | 10.7 |
| Indigenous Considerations | Traditional Land and Resource Use ^(k) , including spiritual or cultural sites | Traditional land and resource use features shared by First Nation communities crossed by the Project footprint, classified as features to be avoided (e.g., burial sites). | North Spirit Lake First Nation Project footprint crosses: <ul style="list-style-type: none"> Two types of identified TLRU values, not classified as 'avoid'. | North Spirit Lake First Nation Project footprint crosses: <ul style="list-style-type: none"> Two types of identified TLRU values, not classified as 'avoid'. Preference shared by community to be further away from a sensitive area. | Wawakapewin First Nation Project footprint crosses: <ul style="list-style-type: none"> Two types of identified TLRU values, not classified as 'avoid'. | Wawakapewin First Nation Project footprint crosses: <ul style="list-style-type: none"> Two types of identified TLRU values, not classified as 'avoid'. Recent (post-EA) information shared by the community identified concern with the proximity of this route to a high-use area. | Kitchenuhmaykoosib Inninuug (from 2019 post-EA surveys) Project footprint crosses: <ul style="list-style-type: none"> High use area including five identified types of TLRU values, not classified as 'avoid'. Wapekeka First Nation <ul style="list-style-type: none"> Project footprint crosses a portion of a large area of identified TLRU value, not classified as 'avoid'. | Kitchenuhmaykoosib Inninuug (from 2019 post-EA surveys) Project footprint crosses: <ul style="list-style-type: none"> High use area including four identified types of TLRU values, not classified as 'avoid'. Recent (post-EA) information shared by the community identified concern with the proximity of this route to a sensitive area. Wapekeka First Nation <ul style="list-style-type: none"> Project footprint crosses a portion of a large area of identified TLRU value, not classified as 'avoid'. | Muskrat Dam First Nation (from 2019 post-EA surveys) Project footprint crosses: <ul style="list-style-type: none"> Four identified types of TLRU values, not classified as 'avoid'. Sachigo Lake First Nation <ul style="list-style-type: none"> One identified type of TLRU value, not classified as 'avoid'. | Muskrat Dam First Nation (from 2019 post-EA surveys) Project footprint crosses: <ul style="list-style-type: none"> Five identified types of TLRU values, not classified as 'avoid'. Recent (post-EA) information shared by the community identified concern with the proximity of this route to a sensitive area. Sachigo Lake First Nation <ul style="list-style-type: none"> One identified type of TLRU value, not classified as 'avoid'. |

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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 MNR 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) Based on habitat modelling – see Section 6.3 of the Final ESR
- f) Potential hibernacula were identified within the ROW-limits of work. Three locations with identified use were confirmed through acoustic monitoring, present on the Red Lake subsystem as documented through the Information Gathering Form supporting *Endangered Species Act* permitting.
- g) Mapped trails include non-OTN trails available through LIO. No OTN trails were identified as being crossed by the defined corridors.
- h) 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.
- i) Recreation points are defined as access points, beaches, boat caches of all types, boat houses, designated campsites and picnic sites.
- j) Archaeological site data may not be released publicly without the express permission of the Ministry of Heritage, Sport, Tourism, and Cultural Industries to protect the integrity of these sites.
- k) 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- 3: Limits of Work around Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation Within the Amended Limits of Work (200 m on either side of the NSL1 40-m wide right-of-way) | Alignment North of Wawakapewin First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide WFN1 right-of-way) | Crossing at Fawn River Within the Amended Limits of Work (200 m on either side of the 40-m wide FR1 right-of-way) | Alignment East of Muskrat Dam First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide MD1 right-of-way) |
|---------------------|---|---|---|--|--|--|
| Technical | Size | Total length of right-of-way (ROW) centreline (km) | 6.9 | 7.0 | 5.4 | 4.3 |
| | | Area of Limits of Work (ha) | 333.1 | 322.8 | 260.3 | 187.0 |
| | Existing Infrastructure | Number of existing roads within the Limits of Work | 0 | 1 | 2 | 0 |
| | | Number of existing road crossings within the Limits of Work | 0 | 1 | 2 | 0 |
| | | Number of other existing linear corridors crossed by the Limits of Work (e.g., communication lines) | 0 | 1 | 1 | 0 |
| Natural Environment | Areas of Natural and Scientific Interest | Area of mapped candidate Areas of Natural and Scientific Interest (ANSI) in the Limits of Work (ha) | 83.2 | 0.0 | 0.0 | 0.0 |
| | Wetlands ^(a) | Area of mapped wetlands in the Limits of Work (ha) | 127.3 | 77.5 | 104.1 | 17.1 |
| | Waterbodies and Watercourses ^(b) | Number of mapped watercourses crossed by the Limits of Work | 9 | 6 | 6 | 1 |
| | | Number of mapped waterbodies crossed by the Limits of Work | 1 | 4 | 3 | 7 |
| | | Area of mapped waterbodies (not including watercourses) in the Limits of Work (ha) | 5.2 | 41.4 | 20.4 | 73.6 |
| | Vegetation ^(d) | Area of mapped occurrences of provincially tracked vegetation species in the Limits of Work ^(c) (ha) | 0.0 | 0.0 | 212.5 | 0.0 |
| | | Areas of natural landcover (terrestrial) within the Limits of Work (ha) | 321.3 | 238.1 | 235.1 | 110.7 |
| | | Area of anthropogenic disturbance within the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of natural disturbance within the Limits of Work (ha) | 6.3 | 27.5 | 0.0 | 0.0 |

Table A- 3: Limits of Work around Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation Within the Amended Limits of Work (200 m on either side of the NSL1 40-m wide right-of-way) | Alignment North of Wawakapewin First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide WFN1 right-of-way) | Crossing at Fawn River Within the Amended Limits of Work (200 m on either side of the 40-m wide FR1 right-of-way) | Alignment East of Muskrat Dam First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide MD1 right-of-way) |
|----------------------------------|--|---|---|--|--|--|
| Natural Environment (cont'd.) | Wildlife Habitat | Area of suitable habitat for moose in the Limits of Work (ha) | 177.7 | 104.2 | 129.0 | 95.4 |
| | | Area of suitable habitat for homed grebe in the Limits of Work (ha) | 10.7 | 94.1 | 45.5 | 73.6 |
| | | Area of suitable habitat for bald eagle in the Limits of Work (ha) | 177.7 | 82.7 | 130.4 | 98.6 |
| | | Area of suitable habitat for Canada warbler in the Limits of Work (ha) | 161.5 | 168.9 | 151.5 | 51.5 |
| | | Area of suitable habitat for common nighthawk in the Limits of Work (ha) | 110.9 | 144.7 | 59.9 | 5.9 |
| | | Area of suitable habitat for olive-sided flycatcher in the Limits of Work (ha) | 216.8 | 99.3 | 169.6 | 100.3 |
| | | Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 187.0 |
| | | Number of spawning sites crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| | | Number of fish and wildlife feeding or staging areas in the Limits of Work | 0 | 0 | 0 | 0 |
| | Nesting Sites | Number of bald eagle nesting sites crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| | Threatened and Endangered species or their Habitat | Area of mapped woodland caribou Category 1 high-use habitat (nursery areas) in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of mapped woodland caribou Category 1 high-use habitat (winter use areas) in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of mapped woodland caribou Category 2 seasonal range habitat in the Limits of Work (ha) | 333.1 | 322.8 | 260.3 | 53.2 |

Table A- 3: Limits of Work around Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation Within the Amended Limits of Work (200 m on either side of the NSL1 40-m wide right-of-way) | Alignment North of Wawakapewin First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide WFN1 right-of-way) | Crossing at Fawn River Within the Amended Limits of Work (200 m on either side of the 40-m wide FR1 right-of-way) | Alignment East of Muskrat Dam First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide MD1 right-of-way) |
|--|---|--|---|--|--|--|
| Natural Environment (cont'd.) | Threatened and Endangered species or their Habitat (cont'd) | Area of mapped woodland caribou Category 3 habitat in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 133.8 |
| | | Area of woodland caribou travel corridors (Spring; April) crossed by the Limits of Work (ha) | 0.0 | 71.2 | 0.0 | 0.0 |
| | | Area of woodland caribou travel corridors (Fall; November) crossed by the Limits of Work (ha) | 0.0 | 115.3 | 0.0 | 0.0 |
| | | Area suitable wolverine habitat in the Limits of Work (ha) | 327.6 | 265.6 | 235.1 | 110.7 |
| | | Area of suitable maternity roosting habitat for little brown myotis in the Limits of Work (ha) | 11.5 | 7.6 | 52.4 | 44.0 |
| | | Number of bat hibernacula confirmed within 500 m of the Limits of Work ^(f) | Not surveyed | Not surveyed | Not surveyed | Not surveyed |
| Land Use, Resource Management Land Use | Land Designation | Area of Enhanced Management within the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of active, inactive, or abandoned mines in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Number of mining claims crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| | | Area of active mining claims in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Area of aggregate pits in the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | Trails | Number of mapped trails crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| | | Length of mapped trails ^(g) crossed by the Limits of Work (km) | 0.0 | 0.0 | 0.0 | 0.0 |
| Socio-economic and Cultural | Tourism and Recreation | Number of MNRFP trapper cabin locations | 0 | 0 | 0 | 0 |
| | | Area of tourism establishment areas crossed by the Project road footprint (ha) | 0.0 | 0.0 | 0.0 | 0.0 |

Table A- 3: Limits of Work around Corridor Refinement Comparative Analysis Metrics

| Factor | Metric Category | Metrics | Alignment East of North Spirit Lake First Nation Within the Amended Limits of Work (200 m on either side of the NSL1 40-m wide right-of-way) | Alignment North of Wawakapewin First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide WFN1 right-of-way) | Crossing at Fawn River Within the Amended Limits of Work (200 m on either side of the 40-m wide FR1 right-of-way) | Alignment East of Muskrat Dam First Nation Within the Amended Limits of Work (200 m on either side of the 40-m wide MD1 right-of-way) |
|---|---|---|--|--|--|--|
| Socio-economic and Cultural (cont'd) | Tourism and Recreation (cont'd) | Recreation points crossed by the Limits of Work ⁽ⁱ⁾ | No substation within the area of the alignment | | | |
| | | Number of buildings within the Limits of Work | 0 | 0 | 0 | 0 |
| | | Number of bait harvest areas (BHA) crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| | | Area of BHA crossed by the Limits of Work (ha) | 0.0 | 0.0 | 0.0 | 0.0 |
| | Archaeology and Cultural Heritage | Number of archaeological sites ^(j) crossed by the Limits of Work | 0 | 0 | 0 | 0 |
| Area of archaeological potential in the Limits of Work (ha) | | 9.3 | 105.9 | 32.9 | 139.6 | |
| Indigenous Considerations | Traditional Land and Resource Use ^(k) , including spiritual or cultural sites | Traditional land and resource use features shared by First Nation communities crossed by the Limits of Work, classified as features to be avoided (e.g., burial sites). | North Spirit Lake First Nation Limits of work crosses: <ul style="list-style-type: none"> The same two types of identified TLRU values as the Project footprint | Wawakapewin First Nation Limits of work crosses: <ul style="list-style-type: none"> The same two types of identified TLRU values as the Project footprint | Kitchenuhmaykoosib Inninuwig (from 2019 post-EA surveys) Limits of work crosses: <ul style="list-style-type: none"> The same five types of identified TLRU values as the Project footprint, as well as six additional types Wapekeka First Nation Limits of work crosses: <ul style="list-style-type: none"> The same type of identified TLRU values as the Project footprint | Muskrat Dam First Nation Limits of work crosses: <ul style="list-style-type: none"> The same four types of identified TLRU values as the Project footprint Sachigo Lake First Nation <ul style="list-style-type: none"> The same type of identified TLRU values as the Project footprint |

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) Based on habitat modelling – see Section 6.3 of the Final ESR

f) Potential hibernacula were identified within the ROW-limits of work. Three locations with identified use were confirmed through acoustic monitoring, present on the Red Lake subsystem as documented through the Information Gathering Form supporting *Endangered Species Act* permitting.

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

h) 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.

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

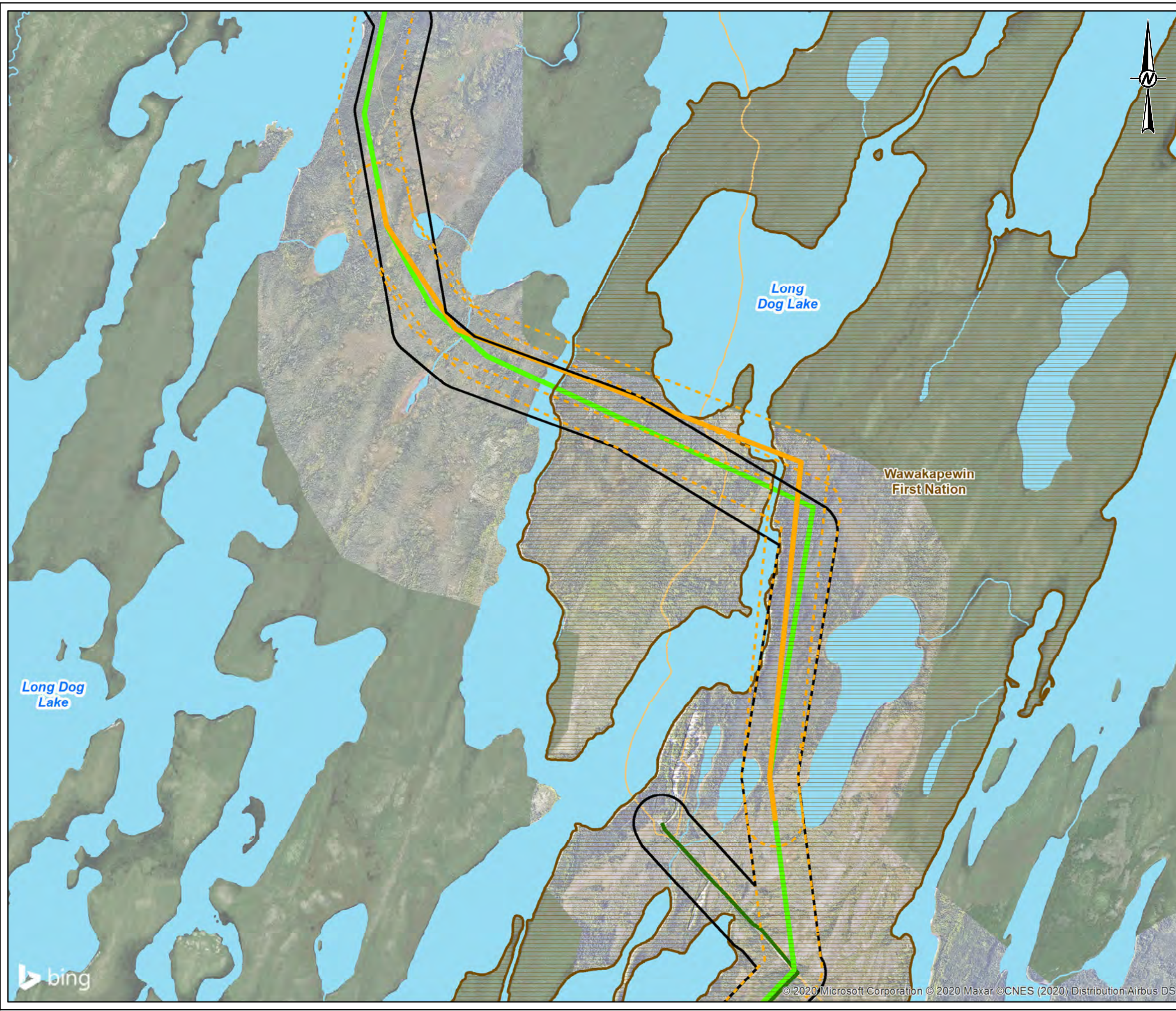
j) Archaeological site data may not be released publicly without the express permission of the Ministry of Heritage, Sport, Tourism, and Cultural Industries to protect the integrity of these sites.

k) 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.

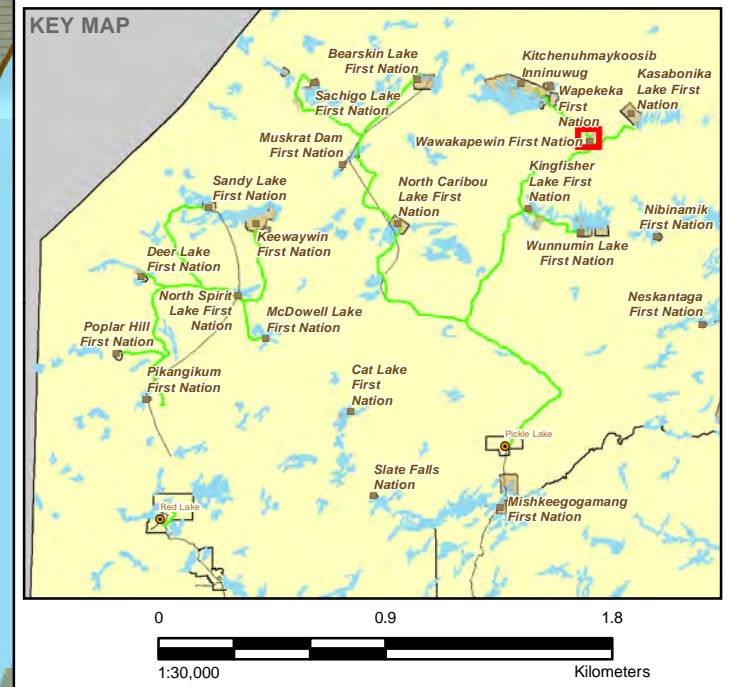
APPENDIX B

Corridor Refinement Figures



LEGEND

- Proposed 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Re-route Limits of Work Boundary
- 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Community Distribution 25 kV Line 40-m-wide right-of-way (ROW)
- Limits of Work Boundary
- Local Roads
- Winter Roads
- Communication Line
- Watercourse
- Waterbody
- 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
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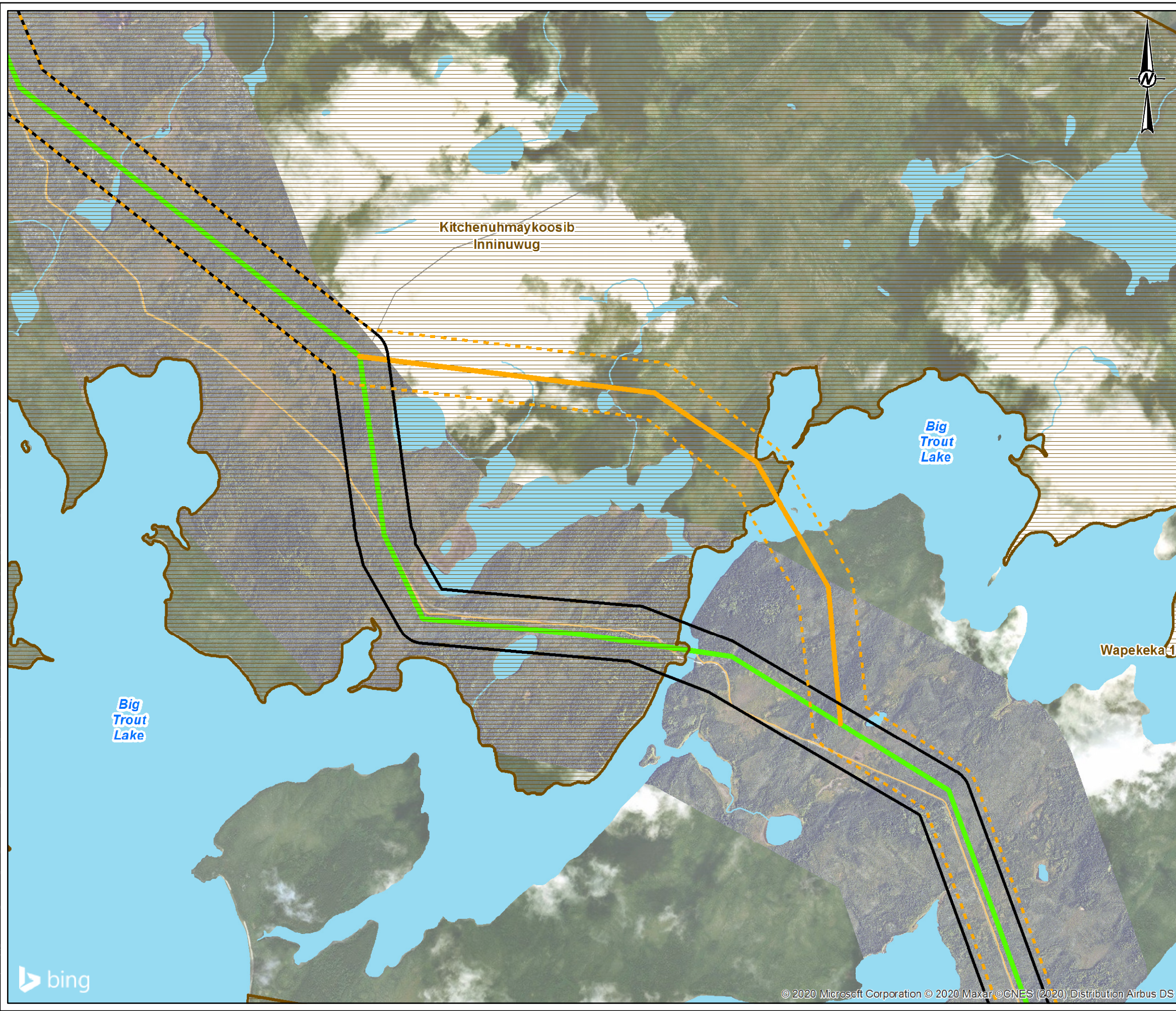
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| CONSULTANT | | YYYY-MM-DD | 2020-09-23 |
| | | DESIGNED | SO |
| | | PREPARED | SO |
| | | REVIEWED | JMC |
| | | APPROVED | BT |

| | | | |
|-------------|---------|------|----------|
| PROJECT NO. | CONTROL | REV. | MAP |
| 1544751 | - | - | 2 |

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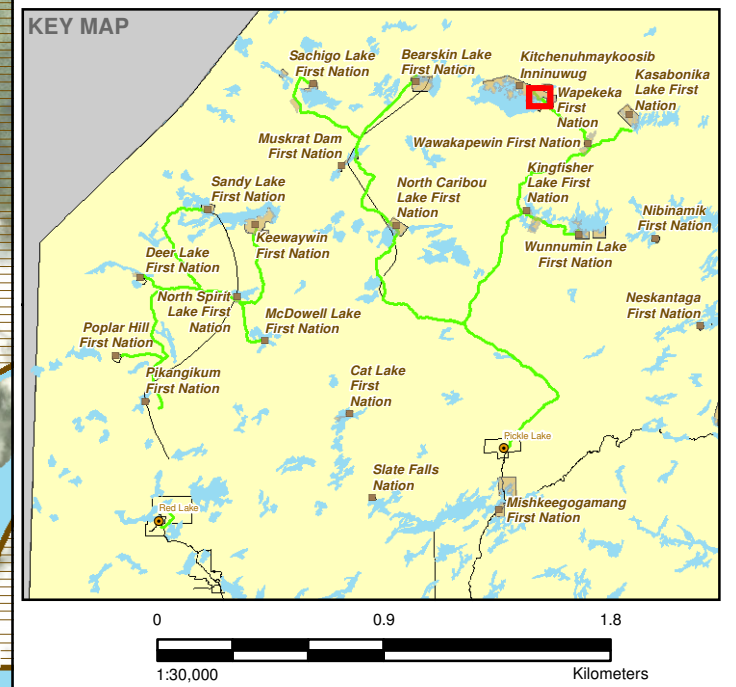
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LEGEND

- Proposed 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- - - Re-route Limits of Work Boundary
- 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Limits of Work Boundary
- Winter Roads
- Communication Line
- Watercourse
- Waterbody
- 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.

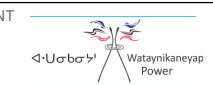
REFERENCE(S)

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

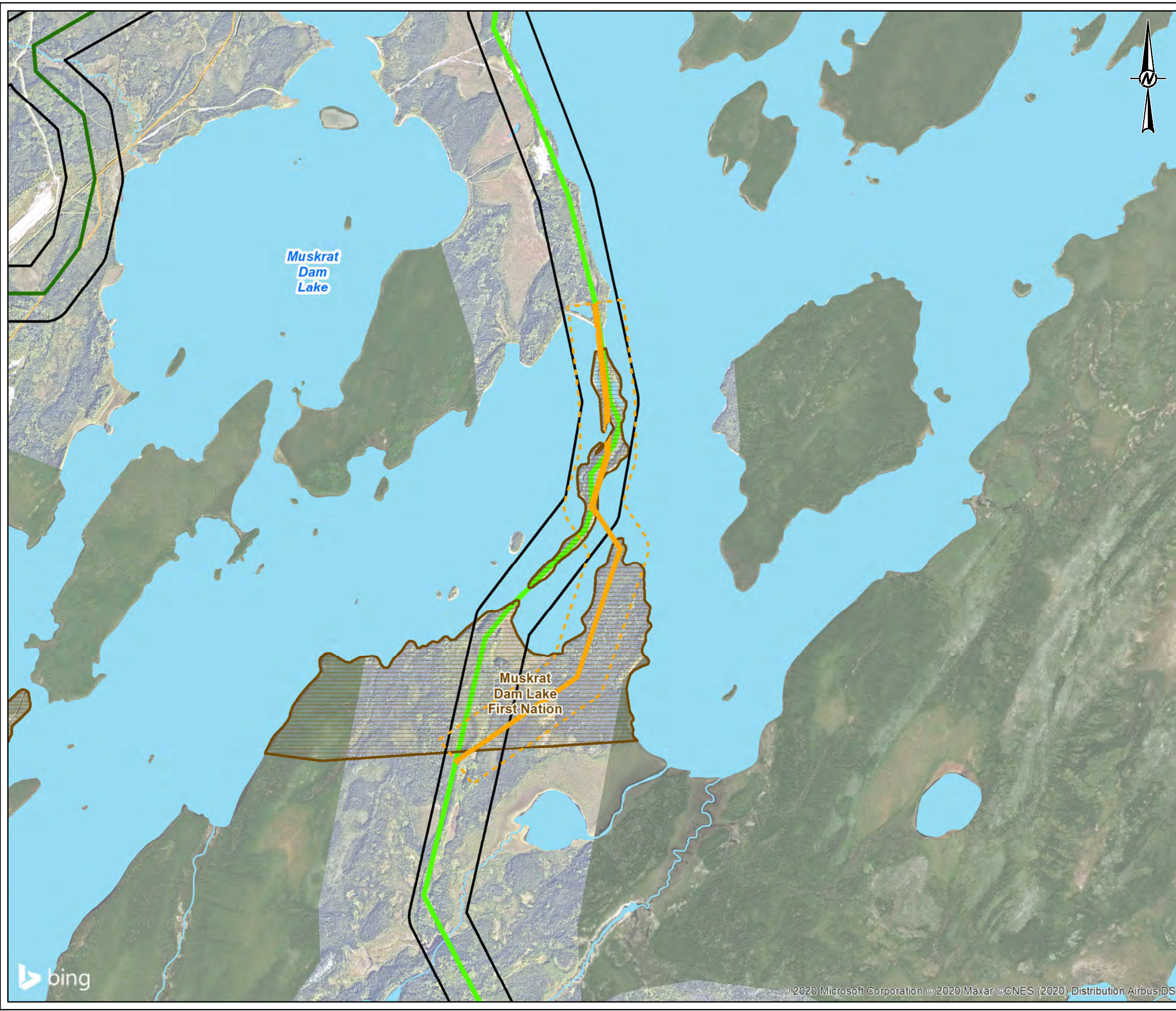
TITLE
CROSSING AT FAWN RIVER

| | | | |
|-------------------|---|------------|------------|
| CONSULTANT |  | YYYY-MM-DD | 2020-10-06 |
| | | DESIGNED | SO |
| | | PREPARED | SO |
| | | REVIEWED | JMC |
| | | APPROVED | BT |

PROJECT NO. 1544751 CONTROL REV. MAP **3**

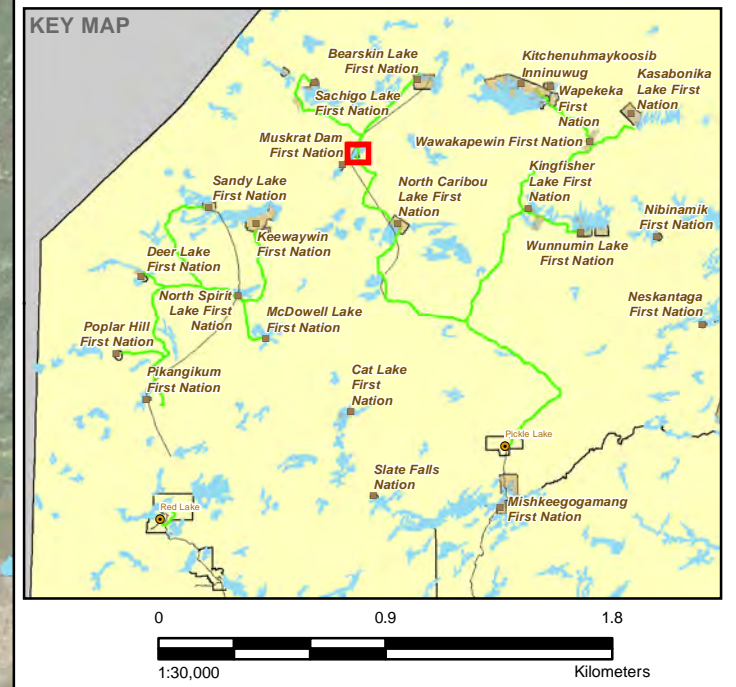


IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm



LEGEND

- Proposed 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Re-route Limits of Work Boundary
- 115 kV 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Community Distribution 25 kV Line 40-m-wide right-of-way (ROW)
- Limits of Work Boundary
- Local Roads
- Winter Roads
- Communication Line
- Watercourse
- Waterbody
- First Nations Reserve



NOTE(S)

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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 MUSKRAT DAM FIRST NATION

| CONSULTANT | DATE | REVISION |
|------------|------------|------------|
| | YYYY-MM-DD | 2020-09-23 |
| | DESIGNED | SO |
| | PREPARED | SO |
| | REVIEWED | JMC |
| | APPROVED | BT |

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 26mm



APPENDIX C

Letter from Chief Donny Morris, Kitchenuhmaykoosib Inninuwug

