

APPENDIX 2.0-B

Routing Through Provincial Parks and Conservation Reserves











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1.0 Introduction

Hydro One Networks Inc. (Hydro One) is completing a comprehensive environmental assessment (EA) for the Waasigan Transmission Line Project (the Project), which is a proposed new double-circuit 230 kilovolt (kV) transmission line between the Lakehead Transformer Station (TS) in the Municipality of Shuniah and the Mackenzie TS in the Town of Atikokan, and a new single-circuit 230 kV transmission line between the Mackenzie TS in the Town of Atikokan and the Dryden TS in the City of Dryden. The length of the transmission line will be approximately 360 kilometres (km).

In February 2022, the Ministry of the Environment, Conservation and Parks (MECP) approved the Amended Terms of Reference (ToR) for the Project (Hydro One 2021). The EA has been carried out according to the approved Amended ToR and the requirements of the *Environmental Assessment Act*.

The Project footprint is proposing to cross Turtle River-White Otter Provincial Park, Campus Lake Conservation Reserve and an access road through Quetico Provincial Park where there were no other suitable options. Provincial parks and conservation reserves are regulated under the *Provincial Parks and Conservation Reserves Act, 2006* (PPCRA). The PPCRA provides the legislative framework for the formal protection of provincial parks and conservation reserves, allowing the MECP (generally through Ontario Parks) to manage these areas. As described in Section 11.1.1 of the Amended ToR, Hydro One intends to meet the requirements set out in PPCRA through the comprehensive EA process.

Development is generally limited in Ontario's parks and protected areas; however, subsection 20(2) of the PPCRA does permit utility corridors, stating that "subject to the policies of the Ministry and the approval of the Minister, with or without conditions, utility corridors, including but not limited to utility corridors for electrical transmission lines, are permitted in provincial parks and conservation reserves" (Government of Ontario 2006). Section 21 of the PPCRA lists conditions for approval that must be met for the Minister to approve a utility corridor in provincial parks and conservation reserves. They are:

- There are no reasonable alternatives;
- Lowest cost is not the sole or overriding justification; and
- Environmental impacts have been considered and all reasonable measures will be undertaken to minimize harmful environmental impact and to protect ecological integrity.











Alternatives were identified and assessed, and the preferred alternatives to cross the protected areas have been identified through this evaluation. The Project is designed to follow existing transmission lines to minimize adverse effects on the environment. While Hydro One has prioritized the minimization of negative effects of the Project on the environmental for the entirety of the Project, Hydro One recognizes the importance of maintaining ecological integrity, cultural values, and recreation opportunities, particularly within protected areas. This has led to the identification of site-specific design changes and mitigation measures to limit adverse effects in the provincial parks and conservation reserve. Further, construction camps, laydown areas and fly yards will not be located within provincial parks and conservation reserves.

This appendix documents the EA conditions for approval for sections of the Project that traverse the provincial parks and conservation reserve.









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2.0 Analysis of Management Plans and Statements

A review was completed of the applicable provincial park management plans and conservation reserve management statement to determine if any modifications would be needed to allow for the planning of the Project. The sections below outline the current language of each management plan or statement and what changes may be required to allow for the Project.

2.1 Quetico Provincial Park

Quetico Provincial Park is a wilderness park focused on protection and allowing the forces of nature to function freely (MNRF 2018). The Quetico Provincial Park Management Plan describes the zoning of specific areas of the lands included in the park. The Project solely proposes using an existing access road that crosses through the park to access the ROW, which is 1.9 km away. The Project does not propose new infrastructure or construction within the park, and the proposed crossing along an existing access road does not require road improvements. Therefore, no changes to the management plan are expected to be required for the Project.

2.2 Turtle River-White Otter Lake Provincial Park

Turtle River-White Otter Lake Provincial Park is a waterway park focused on the protection of recreational water routes and representative and significant terrestrial and aquatic ecosystems and associated natural and cultural features (MNRF 2012). The Turtle River-White Otter Lake Provincial Park Management Plan describes the zoning of specific areas of the lands included in the park. There is an existing transmission line corridor through the park (running north-southeast of Ann Bay and crossing the park east of Balmoral Lake), but there are no guidelines in the management plan for new transmission line corridors.

It is expected that the management plan for Turtle River-White Otter Lake Provincial Park would need to be amended to permit new transmission corridors per section 21 of the *Provincial Parks and Conservation Reserve Act, 2006.*









2.3 Campus Lake Conservation Reserve

The Campus Lake Conservation Reserve was designated to conserve representative landform and vegetation types, including wetland communities and mixed conifer and deciduous forest types on weakly broken beach and aeolian deposits and weakly broken ground moraine (MNRF, 2005). The Campus Lake Conservation Reserve Management Statement allows for transmission line corridors and one currently runs through the site between Elsie Lake and Campus and Mabel Lakes. Section 4.2.8 of the statement notes that the existing corridor may continue to be used and new facilities should avoid conservation reserve lands wherever possible.

It is expected that the management statement for the Campus Lake Conservation Reserve would not need to be updated as the Project would follow the existing corridor and the management statement permits this use.













3.0 Alternatives Analysis

The analysis of alternatives through and around the provincial parks and conservation reserve was completed to evaluate and select the best option for the preferred route. The sections below outline the alternative route evaluation completed to select the overall preferred route and then additional analysis of alternatives considered for the crossing of each protected area.

3.1 Alternative Route Evaluation

An alternative route evaluation was completed to identify an overall preliminary preferred route for the Project by comparing route alternatives. A multi-criteria analysis tool was used to evaluate Project alternatives across the four key themes relevant to the Project (Indigenous Culture, Values, and Land Use; Natural Environment; Socio-Economic Environment; and Technical and Cost considerations). The area (hectares) of the Project footprint for each of the alternative routes that crossed provincial parks and conservation reserves was included as an indicator under both the natural environment and socio-economic themes to provide sufficient ability for these indicators to influence the results of the model.

Details regarding the alternative route evaluation are provided in Appendix 2.0-A and are not repeated here.

Overall, the preliminary preferred route identified best balanced the four themes that were considered, provided a viable solution using proven technologies, was technically feasible, and was consistent with provincial government priorities and direction. Overall, the preliminary preferred route was also favourable from an Indigenous, natural environment, socio-economic perspective.

3.2 Preferred Route through Protected Areas

Once an overall preferred route was identified, site-specific alternatives for the crossings of the two provincial parks and one conservation reserve were considered to recognize the need to minimize negative effects of the Project within these protected areas. Site-specific design refinements and mitigation measures were then considered for each area where appropriate. The sections below outline the alternatives considered and the proposed preferred alternative for each crossing.

3.2.1 Quetico Provincial Park – Preferred Alternative

The Project footprint for the preferred route runs adjacent to Quetico Provincial Park in one location north of Win Lake. Ontario Parks noted the proximity of the Project footprint to the Quetico Provincial Park boundary and how a small portion of an access road crossed the park boundary. Hydro One updated the access plan in that area so that the new access road proposed follows the proposed ROW and no longer crosses Quetico Provincial Park.





The Project proposes using an existing access road that crosses through a portion of the park to access the right-of-way (ROW), which is 1.9 km away (Figure 3.2-1). Hydro One reviewed the preliminary access plan at this location to determine if the use of the access road in the provincial park could be avoided. Because this is the only existing access road that connects from Highway 11 to this section of the proposed ROW, no existing alternative access roads were identified in the area. Much longer routes located north of the proposed ROW were reviewed but would require improvements, such as vegetation clearing to re-establish the roads, making the existing access road preferable as it could potentially eliminate the need for vegetation clearing and related potential habitat removal. As such, the use of the existing road through the provincial park for access is expected to avoid environmental effects from the Project elsewhere.

The existing access road crosses through a small stand-alone portion of the park that is north of Highway 11. Hydro One engaged with Ontario Parks to understand the features in this area and potential concerns with the preliminary Project footprint. Ontario Parks noted that this area was added to the park to protect historical and cultural values including the old Dawson route and a French portage. There is a parking lot and hiking trail at this location. The Project does not propose new infrastructure or construction within the park, and the proposed use of the existing access road does not require road improvements; thus, no direct impacts to the park (including the parking lot and hiking trail) are anticipated.

Hydro One also considered site-specific mitigation measures based on engagement with Ontario Parks. Ontario Parks noted that traffic may need to be managed, especially during the summer months, in this area and for the proposed access road to the west, which is across the road from Dawson Trail Campground. Hydro One is currently considering site-specific mitigation measures. Mitigation measures under consideration at this location include:

- Construction vehicles will not use Ontario Parks parking lots;
- Modification of speed limits for construction vehicles; and
- Warning signage.

Ontario Parks and multiple landowners requested that Hydro One consider the potential use of a former transmission line corridor located east of Atikokan given the proximity to Quetico Provincial Park. The former 115-kV transmission line was decommissioned approximately 30 years ago. When the 115 kV line was decommissioned, the land was released back to the Crown. As a result, Hydro One would need to acquire new occupational authority on Crown land and private land rights along this corridor. In the period since decommissioning, vegetation has regenerated in the corridor, including alder and birch tree species. The re-established vegetated area reduces habitat fragmentation by providing cover for wildlife that may have previously avoided crossing the corridor. Rebuilding along this decommissioned corridor has the disadvantage of reintroducing habitat fragmentation, whereas the current route within this area is adjacent to the existing 230 kV line, which reduces potential habitat fragmentation effects by



not introducing separate transmission line corridors. An additional disadvantage of using the decommissioned corridor is that it would also cross an active aggregate operation which could result in significant business loss. By having the new transmission line follow the existing transmission line in this area, the preferred route has the advantage that it reduces the number of independent corridors across the landscape, co-locating these disturbed areas together, and thereby reducing potential permanent effects on the natural and socio-economic environment. Considering potential advantages and disadvantages of the preferred route as proposed, it is still identified as preferred.

Based on the above, the Project footprint identified on Figure 3.2-1 was determined to be the preferred alternative when crossing Quetico Provincial Park.













PREFERRED ROUTE TRANSMISSION LINE RIGHT-OF-WAY

- TEMPORARY LAYDOWN AREA (PULL SITE)
- AGGREGATE SITE
- PROVINCIAL PARK

200 400 0 METRES 1:10,000

CLIENT HYDRO ONE NETWORKS INC.

CONSULTANT

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YYYY-MM-DD 2023-10-12 DESIGNED CS PREPARED DB REVIEWED ΗK CS APPROVED

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO 2. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 15N

PROJECT

WAASIGAN TRANSMISSION LINE

TITLE **QUETICO PROVINCIAL PARK – PROJECT FOOTPRINT** FIGURE PROJECT NO. CONTROL REV. 20137728 0040 1



PREFERRED ROUTE TRANSMISSION LINE RIGHT-OF-WAY

- HELICOPTER PAD
- FLY YARD PROVINCIAL PARK

1:40,000

HYDRO ONE NETWORKS INC.

CONSULTANT

CLIENT

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YYYY-MM-DD 2023-10-12 DESIGNED CS PREPARED DB REVIEWED ΗK CS APPROVED

PROJECT

WAASIGAN TRANSMISSION LINE

TITLE **QUETICO PROVINCIAL PARK – PROJECT FOOTPRINT** FIGURE PROJECT NO. CONTROL REV. 20137728 0040 1



3.2.2 Turtle River-White Otter Lake Provincial Park – Preferred Alternative

The Project footprint for the preferred route traverses the Turtle River-White Otter Lake Provincial Park between Balmoral Lake and Elbow Lake (Figure 3.2-2-A). The Project also proposes using an existing access road that crosses through a portion of the park to access ROW, which is 6.8 km away (Figure 3.2-2-B). It is not possible to completely avoid crossing the provincial park given its large geographic extent. Hydro One reviewed the preliminary Project footprint to determine if there are alternatives that could either minimize the Project footprint or reduce effects on the environment within the provincial park.

For the existing access road, the use of this road is necessary because it provides access to a large section of the proposed ROW. If this road was removed from the Project footprint, additional new access would be required to access this portion of the ROW. As such, the use of the existing road through the provincial park for access is expected to avoid environmental effects from the Project elsewhere.

For the section of the park where the proposed ROW crosses, it is proposed to be adjacent to an existing transmission line through the provincial park. Alternatives to this alignment were considered that had the new transmission line ROW deviate from following the existing transmission line ROW. Alternatives that deviate from the existing transmission line ROW would result in increased environmental effects and not be preferred due to the following:

- Moving the ROW east or west would:
 - Not decrease the total length of the provincial park crossed;
 - Increase the length of the ROW, resulting in more vegetation clearing and related impacts (e.g., potential habitat loss);
 - Increase the amount of access roads required to service both the new and existing transmission lines versus sharing access roads when the ROWs are adjacent;
 - Require additional angle structures that require temporary laydown areas as pull sites for conductor stringing resulting in additional vegetation clearing; and
 - Create two separate transmission line corridors that increases wildlife habitat fragmentation (e.g., rather that paralleling an existing ROW).
- Moving the ROW to the west would require a larger waterbody crossing where the transmission line would be more visible.

In addition, feedback received during the ToR and EA repeatedly noted the preference to follow existing linear infrastructure to limit adverse effects. Changes to the proposed ROW, which currently runs adjacent to an existing transmission line ROW, would not be consistent with that feedback.

Based on the above, the Project footprint identified on Figure 3.2-2 was determined to be the preferred alternative when crossing Turtle River-White Otter Lake Provincial Park.



Where the ROW crosses the park, the crossing includes the construction of approximately 525 m of new ROW, 650 m of new access roads and 470 m of existing access roads where potential improvements are required. The majority of the access road will be restricted to being within either the new ROW or the adjacent existing ROW. The preliminary access roads through the provincial park include alternative options for design flexibility. Only one option to cross the provincial park and access the transmission structures will be utilized during construction. This will be determined during detailed planning and following additional geotechnical field surveys. Further, the proposed new access roads through the provincial park will be temporary and only the existing access road will be maintained permanently through the provincial park.

Hydro One will plant seedlings along new off-RoW access roads in the provincial park. This is limited to roads that require new clearing and new construction. Where existing roads and trails are used, these areas will be reclaimed to their pre-existing condition to the extent practicable. New, on-RoW trails will be reclaimed, and topsoil will be rolled back over the reclaimed road. Areas that are subject to erosion, and waterbody crossing locations that have been removed after construction will all be seeded in accordance with MNRF, or other applicable regulatory agency, requirements to promote plant species establishment during reclamation, as soon as feasible after construction. The reclaimed on-RoW access road will naturally revegetate along with the remainder of the ROW and will be managed to support vegetation that is compatible with the safe operation of the transmission line.

Section 3.3.12 of the Project Description notes that helicopter pads could be moved along the ROW once detailed planning is complete and their locations can be finalized. However, Hydro One has committed to not locating a helicopter pad within this provincial park to minimize further temporary disturbance within the provincial park. Further, construction camps, laydown areas, and fly yards will not be located within the provincial park.

In addition, the Project footprint initially included two structures located within the provincial park. Hydro One is investigating the feasibility of moving the northern most structure farther north to be located outside the provincial park boundary. The location of this structure will be finalized during detailed design.









HELICOPTER PAD 200 0 PROVINCIAL PARK ł

1:10,000 METRES

400

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO 2. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 15N

CONSULTANT

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3.2.3 Campus Lake Conservation Reserve – Preferred Alternative

The Project footprint for the preferred route traverses the Campus Lake Conservation Reserve west of Sandford Lake near Ann Bay Portage and between Turtle River, Mabel Lake, and Campus Creek (Figure 3.2-3).

Hydro One reviewed the preliminary Project footprint to determine if there are alternatives that could either minimize the Project footprint or reduce effects on the environment within the conservation reserve. There is an existing transmission line through the conservation reserve, so the ROW has been proposed to run adjacent to it. Alternatives to this alignment were considered to have the ROW deviate from the existing transmission line ROW. This included evaluating alternatives where the ROW would deviate west to minimize the amount of the conservation reserve crossed; however, alternatives that deviate from the existing transmission line ROW would result in increased environmental effects and not be preferred due to the following:

- Moving the ROW east or west would:
 - Increase the length of the ROW resulting in more vegetation clearing;
 - Increase the length of access roads required to service both the new and existing transmission lines versus sharing access roads when the ROWs are adjacent;
 - Require additional angle structures that require temporary laydown areas as pull sites for conductor stringing resulting in additional vegetation clearing;
 - Create two separate transmission corridors that increases wildlife habitat fragmentation; and
 - Likely require additional larger water crossings where the transmission line would be more visible.
- Moving the ROW to the west may require an additional crossing of Turtle River-White Otter Lake Provincial Park where the conservation reserve and provincial park converge.

In addition, feedback received during the ToR and EA repeatedly noted the preference to follow existing linear infrastructure to limit adverse effects. Changes to the ROW, which currently runs adjacent to an existing transmission line ROW, would not be consistent with that feedback.

Based on the above, the Project footprint identified in Figure 3.2-3 was determined to be the preferred alternative when crossing Campus Lake Conservation Reserve.

With regard to the infrastructure proposed, the crossing includes the construction of approximately 12 km of new ROW, 15 km of new access roads and 14 km of existing access roads where potential improvements may be required. The majority of access roads are located within the new ROW or the adjacent existing ROW. Where access roads are required outside of either ROW, most are existing access roads where potential improvements are required instead of new access roads. The preliminary access roads through the conservation reserve include



alternative options for design flexibility. Only one option to cross the conservation reserve and access the transmission structures will be utilized during construction. This will be determined during detailed planning and following additional geotechnical field surveys. Further, the proposed new access roads through the conservation reserve will be temporary and only the existing access road will be maintained permanently through the conservation reserve.

Hydro One will plant seedlings along new off-RoW access roads in the conservation reserve. This is limited to roads that require new clearing and new construction. Where existing roads and trails are used, these areas will be reclaimed to their pre-existing condition to the extent practicable. New, on-RoW trails will be reclaimed, and topsoil will be rolled back over the reclaimed road. Areas that are subject to erosion, and waterbody crossing locations that have been removed after construction will all be seeded in accordance with MNRF, or other applicable regulatory agency, requirements to promote plant species establishment during reclamation, as soon as feasible after construction. The reclaimed on-RoW access road will naturally revegetate along with the remainder of the ROW and will be managed to support vegetation that is compatible with the safe operation of the transmission line.

A Métis citizen attending the January 2023 Community Open House in Dryden, Ontario noted that a portage exists between Mabel Lake and Elsie Lake, as shown on Figure 3.2-3. In addition, between these two lakes is a small pond that provides walleye (*Sander vitreus*) habitat (Hydro One 2023). The Ministry of Natural Resources and Forestry also noted potential effects to lake trout lakes in the region that include Mabel Lake and Elsie Lake. The Project footprint in the Draft EA Report showed multiple access road options in this area and it noted that the final option would be selected during detailed design. Based on feedback on the Draft EA Report and concern in this area, the access plan in the Final EA Report between Mabel Lake and Elsie Lake was simplified to show a single preferred access road crossing the area.

The water crossings proposed in this area will be clear span bridges, which are preferred to culverts in sensitive areas as they avoid the need for in-water work. Additional mitigation measures for water crossings are provided in Section 6.2 (Surface Water) and Section 6.6 (Fish and Fish Habitat). Mitigation measures are also included in Section 7.1 (Land and Resource Use) related to conservation reserves and recreation and fishing such as the development of a Communications Plan to notify Indigenous communities, landowners, guided outfitters, administrators, registered trappers, the Ontario Federation of Anglers and Hunters (OFAH), registered licence holders prior to the start of construction.

The Project footprint includes two helicopter pads located within the conservation reserve. Based on feedback from Ontario Parks regarding the need to minimize disturbance where possible, only one helicopter pad will be used within the conservation reserve. The two preliminary locations for this helicopter pad are shown on Figure 3.2-3 and the final single location could move along the ROW following detailed planning, as noted in Section 3.3.12 of the Project Description. Hydro One will plant seedlings in the one temporary helicopter pad within the Campus Lake Conservation Reserve following construction if it is still required after detailed planning is completed.





4.0 **Effects Assessment and Mitigation Measures**

Sections 6.0 and 7.0 of the EA provides the effects assessment for the Project components and activities throughout the construction, operation and maintenance, and retirement stages. For example, Section 7.1 identifies potential effects on protected areas and trail users, including potential disturbances to areas of use, and access to non-commercial hunting, trapping, fishing, boating, hiking, cycling, camping, and other outdoor recreational activities. Section 7.1 also describes how changes in environmental conditions (e.g., visual environment, acoustic environment, and air quality) may affect non-commercial recreational experiences. Section 7.1 also includes a criterion for parks and protected areas where potential effects and mitigation measures are identified specific to these areas. Accordingly, the effects assessment is not repeated here.

Likewise, the mitigation measures identified in Sections 6.0 and 7.0 are intended to be applied across the Project footprint, and therefore are applicable to all protected areas.















5.0 Summary

The Project footprint crosses two provincial parks and one conservation reserve. Different alternatives for each crossing were considered to identify the preferred route.

The portions of the ROW and types of Project components that are to be located in these protected areas were selected because there are not any reasonable alternative routes. During Project planning, each protected area was reviewed individually to determine the appropriate and feasible mitigation measures that could be implemented to decrease potential adverse effects on the environment. The lowest cost was not the overriding justification for selection of the Project footprint within the two provincial parks and one conservation reserve crossed. During construction of the Project, mitigation measures will be implemented to minimize environmental effects and protect ecological integrity, as outlined in the EA. Project engineering and mitigation measures will be further refined through engagement with regulatory agencies during the permitting and detailed planning stage of the Project.













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