WATAYNIKANEYAP POWER L.P.

Addendum to the

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

Assessment of Revised Route for Three Areas of 115 kV Transmission Line Corridors and Related Infrastructure

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LIST OF ACRONYMS

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

LIST OF UNITS

Unit	Definition
ha	Hectare
km	Kilometre
kV	Kilovolt
m	Metre

1.0 INTRODUCTION

A partnership that has grown to 24 First Nation communities was formed (First Nation Limited Partnership [FNLP], formerly known as the Central Corridor Energy Group [CCEG]) to address need for sufficient electricity supply for 17 remote First Nation communities. FNLP partnered with Fortis Inc. (Fortis), to establish a licenced transmission company, the Wataynikaneyap Power Limited Partnership (Wataynikaneyap) with a mandate to develop, construct, operate, and own the Wataynikaneyap Transmission Project. The Wataynikaneyap Transmission Project is being developed in two phases. Phase 1, the New Transmission Line to Pickle Lake Project, is an approximately 300-kilometre (km) long, 230-kilovolt (kV) transmission line from the Dinorwic (east of Dryden) / Ignace area to Pickle Lake in northwestern Ontario. Phase 2 Connecting 17 Remote First Nation Communities includes approximately 1,500 km of 115-kV, 44-kV, and 25-kV alternating current (AC) transmission lines, and associated infrastructure for subsystems north of Pickle Lake and Red Lake that will connect 17 remote First Nation communities currently powered by diesel generation, to the provincial electrical grid.

A Final Environmental Study Report (ESR) for the Phase 2 Connecting 17 Remote First Nation Communities Project (the Project), which was subject to the *Ontario Environmental Assessment Act* (EAA) under the following Class EA processes:

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

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

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

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

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

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

[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).

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.

This document considers Project design changes subject to this commitment under the Hydro One Class EA.

1.1 Description of Project Design Refinements

Since the release of the Final ESR, Wataynikaneyap has identified threes areas to improve alignment of the 115-kV transmission line, specifically:

- Approximately 10 km of 115 kV right-of-way (ROW) alignment and within ROW access around the Goldcorp Inc. (Goldcorp) Red Lake Mine site east of the Nungesser Road on the Red Lake subsystem; to adhere to required setback distances from the existing and planned future activities at the mine based on improved understanding of current and future plans. The line will not connect to the Balmer Transformer Station (TS).
- Approximately 6 km of 115 kV ROW alignment and within ROW access within the Whitefeather Forest north of Poplar Hill First Nation to reduce disturbance within species at risk habitat, and to optimize the Project's alignment with future proposed community infrastructure projects.
- Approximately 75 km of 115 kV ROW and within ROW access, as well as adjustment to the substation location between Muskrat Dam First Nation to Sachigo Lake First Nation, also to reduce disturbance within species at risk habitat, and to optimize the Project's alignment with future proposed community infrastructure projects.

Through discussions with the MNRF and Ministry of the Environment, Conservation and Parks (MECP), the requirement for an Addendum to the Final ESR under the Hydro One Class EA was determined to consider these Project refinements outside of the limits of work for 115 kV line segments and related infrastructure. As outlined in Section 3.9 of the Class EA for Minor Transmission (Ontario Hydro 1992), the addendum "will document the circumstances necessitating the change, the environmental effects caused by the change and what can be done to mitigate any negative impacts". This Addendum to the Final ESR achieves these requirements by presenting an overview of the proposed design changes and providing an analysis of the Project footprint changes (specifically where refinements to the 40-m-wide corridor of the 115-kV transmission line were made outside of the limits of work identified around the 40-m-wide alignment in the Final ESR), compared with the Project footprint assessed in the Final ESR.

This Addendum undertakes a comparative analysis using the metrics defined for consideration of corridor alternatives described in Appendix 3.10A and 3.11A of the Final ESR, which correlates with the environmental criteria defined for this EA (see Section 4.0 of the Final ESR), including consideration of results of engagement with Aboriginal communities, land use planning, and available baseline environmental spatial data. The comparative analysis findings are used to comment on any difference to environmental effects identified in the Final ESR as a result of the change, along with consideration of relevant mitigation measures, where applicable.

2.0 METHOD FOR THE ANALYSIS OF PROJECT REFINEMENTS

The objective of this section is to discuss the rationale for the refinement of the 40-m-wide 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.

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

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

The metrics that were considered in the analysis are presented in Appendix A. The reported metrics represent publicly available datasets and datasets collected for the Project relevant to the study areas for the analysis of these corridors, consistent with the assessment of corridor alternatives presented in Section 3.10 and Appendix 3.11A of the Final ESR. As well, noise during the operation stage was compared considering presence of points of reception relative to the adjusted substation location north of Muskrat Dam First Nation.

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.

3.0 PROJECT REFINEMENT COMPARATIVE EFFECTS ASSESSMENT

This section presents the comparative analysis for each section where the 115-kV, 40-metre (m)-wide transmission line alignment was revised outside of the limits of work compared with an equivalent section of the Project footprint assessed in the Final ESR. Specifically, this includes the following areas:

Red Lake subsystem:

- right-of-way (ROW) alignment and access around the Goldcorp Red Lake Mine site east of the Nungesser Road; and
- ROW alignment and access within Whitefeather Forest north of Poplar Hill First Nation.

Pickle Lake subsystem:

- the substation location, ROW alignment and access from Muskrat Dam First Nation to Sachigo Lake First Nation.

The metric tables used to support the corridor refinement analysis are presented in Appendix A. The Project footprints were evaluated by comparing the presence of features within or where applicable, adjacent to the ROW,

and by highlighting discernable differences between them. Since preparation of the Final ESR, MNRF has provided an updated dataset characterizing caribou (boreal population) habitat within the region. This updated dataset was used in the analysis presented below and in Appendix A to compare any areas crossed by the Project footprint. The Project segments subject to the corridor refinement analysis are shown in Figures 1 to 5 presented in Appendix B.

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

3.1 Red Lake Subsystem

3.1.1 Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

The route for the Project segment identified as the *Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road* has been refined based on improved understanding of the boundaries of area to be avoided, defined by Goldcorp near the Red Lake Mine (Figure 2).

This refinement was made to the south end of the 115-kV Red Lake transmission line subsystem, moving the ROW further to the east between the Chukuni River and the north end of Balmer Lake, east of Nungesser Road. This refinement adjusts the position of the ROW around Goldcorp's defined areas to be avoided at the Red Lake Mine, connecting back with the alignment assessed in the Final ESR just east of Nungesser Road (Figure 2).

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 1. The full set of metrics considered is presented in Appendix A. Generally, habitat for wildlife criteria is similarly abundant and distributed along both Project footprints.

Table 1: Corridor Refinement Analysis – Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		
	RL1 (Amended Project Footprint)	**RL2 (Project Footprint Considered in the Final ESR)**	
Technical	**Size** ■ ROW is approximately 10.1 km in length. ■ The Project footprint has an area of approximately 39.8 ha.	**Size** ■ ROW is approximately 7.9 km in length. ■ The Project footprint has an area of 31.8 ha.	■ RL1 has a longer ROW length and larger Project footprint than RL2. The increase in the ROW and Project footprint area for RL1 is attributed to increased understanding of Goldcorp's setback distances.

Table 1: Corridor Refinement Analysis – Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		
	RL1 (Amended Project Footprint)	**RL2 (Project Footprint Considered in the Final ESR)**	
	Existing Infrastructure ■ The Project footprint crosses two existing roads at three crossing points. ■ Other existing linear corridors are not crossed by the Project footprint.	**Existing Infrastructure** ■ The Project footprint crosses one existing road at three crossing points. ■ One other existing linear corridor is crossed by the Project footprint.	■ One fewer existing roads is crossed by the Project footprint defined by RL2, but with the same number of crossing points. No discernable difference between the Project footprints for RL1 and RL2.
Natural Environment	**Wetlands[(a)]** ■ The Project footprint crosses 11.9 ha of mapped wetlands.	**Wetlands[(a)]** ■ The Project footprint crosses 2.2 ha of mapped wetlands.	■ The Project footprint for RL1 crosses a larger area of mapped wetlands.
	Waterbodies and Watercourses[(b)] ■ The Project footprint crosses ten mapped watercourses. ■ The Project footprint crosses two mapped waterbodies[(c)] for an area of 0.2 ha.	**Waterbodies and Watercourses[(b)]** ■ The Project footprint crosses six mapped watercourses. ■ The Project footprint crosses one waterbody[(c)] for an area of 0.3 ha.	■ The Project footprint for RL1 crosses a greater number of mapped watercourses than the Project footprint for RL2, although the difference in area of waterbodies crossed is not discernable.
	Vegetation[(d)] ■ The Project footprint crosses: ▪ 36.8 ha of natural landcover (terrestrial); ▪ 3.0 ha of anthropogenic disturbance; and ▪ 0.0 ha of natural disturbance.	**Vegetation[(d)]** ■ The Project footprint crosses: ▪ 30.8 ha of natural landcover (terrestrial); ▪ 0.6 ha of anthropogenic disturbance; and ▪ 0.0 ha of natural disturbance.	■ No discernable difference between the Project footprints for RL1 and RL2, although the Project footprint for RL1 crosses a slightly larger area of natural landcover (terrestrial) and anthropogenic disturbance.

Table 1: Corridor Refinement Analysis – Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		
	RL1 (Amended Project Footprint)	**RL2 (Project Footprint Considered in the Final ESR)**	
Natural Environment (cont'd)	**Wildlife Habitat** ■ The Project footprint crosses 25.4 ha of potential suitable moose habitat. ■ The Project footprint crosses 0.0 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 25.4 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 21.8 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 12.7 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 26.8 ha of potential suitable olive-sided flycatcher habitat. ■ The Project footprint does not cross any mapped potential habitat supporting provincially tracked wildlife species.	**Wildlife Habitat** ■ The Project footprint crosses 20.2 ha of potential suitable moose habitat. ■ The Project footprint crosses 0.4 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 20.2 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 16.4 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 11.2 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 20.2 ha of potential suitable olive-sided flycatcher habitat. ■ The Project footprint crosses 0.2 ha of mapped potential habitat supporting provincially tracked wildlife species.	■ No discernable difference between the Project footprints for RL1 and RL2. The Project footprint for RL1 crosses slightly more potential suitable habitat for most wildlife criteria species (not threatened or endangered), except for horned grebe.

Table 1: Corridor Refinement Analysis – Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		
	RL1 (Amended Project Footprint)	**RL2 (Project Footprint Considered in the Final ESR)**	
Natural Environment (cont'd)	**Threatened and endangered species or their habitat (Caribou (Boreal population))** ■ The Project footprint crosses 39.8 ha of mapped Category 3 habitat.	**Threatened and endangered species or their habitat (Caribou (Boreal population))** ■ The Project footprint crosses 31.8 ha of mapped Category 3 caribou (Boreal population) habitat.	■ No discernable difference between the Project footprints for RL1 and RL2. The Project footprint for RL1 crosses slightly more Category 3 mapped habitat for caribou (Boreal population). The Project footprint are of both RL1 and RL2 is entirely located within Category 3 habitat.
	Threatened and endangered species or their habitat (Wolverine) ■ The Project footprint crosses 39.8 ha of potential suitable wolverine habitat.	**Threatened and endangered species or their habitat (Wolverine)** ■ The Project footprint crosses 31.4 ha of potential suitable wolverine habitat.	■ No discernable difference between the Project footprints for RL1 and RL2. However, the Project footprint for RL1 crosses slightly more potential suitable habitat for wolverine.
	Threatened and endangered species or their habitat (Little brown myotis) ■ The Project footprint crosses 17.5 ha of potential suitable little brown myotis maternity roosting habitat.	**Threatened and endangered species or their habitat (Little brown myotis)** ■ The Project footprint crosses 15.8 ha of potential suitable little brown myotis maternity roosting habitat.	■ No discernable difference between the Project footprints for RL1 and RL2. However, the Project footprint for RL2 crosses slightly more potential suitable little brown myotis maternity roosting habitat.
Land Use, Resource Management	**Mining Claims** ■ The Project footprint crosses three mining claims for an area of 4.9 ha.	**Mining Claims** ■ The Project footprint does not cross any mining claims.	■ The Project footprint for RL1 crosses mining claims and RL2 does not. However, the Project footprint for RL1 adheres to Goldcorp's setback distances from infrastructure housing explosives and designated areas of tailings infrastructure expansion.
	Aggregate Resources ■ The Project footprint crosses one aggregate resource area of 0.4 ha	**Aggregate Resources** ■ The Project footprint does not cross any existing aggregate resource areas.	■ No discernable difference between the Project footprints for RL1 and RL2.
	Trails ■ The Project footprint crosses seven non-OTN trails for a total length of 0.4 km.	**Trails** ■ The Project footprint crosses seven non-OTN trails for a total length of 0.6 km.	■ No discernable difference between the Project footprints for RL1 and RL2.

Table 1: Corridor Refinement Analysis – Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		
	RL1 (Amended Project Footprint)	RL2 (Project Footprint Considered in the Final ESR)	
Socio-economic	**Tourism and Recreation** ■ The Project footprint crosses two Bait Harvesting Areas (BHA) for a total area of 39.8 ha.	**Tourism and Recreation** ■ The Project footprint crosses one BHA for a total area of 31.8 ha.	■ The Project footprint for RL1 crosses an additional BHA. The Project footprint are of both RL1 and RL2 is entirely located within BHAs.
	Archaeology and Cultural Heritage ■ 0.1 km of the ROW is located within areas of archaeological potential. ■ The Project footprint crosses 0.5 ha of land with archaeological potential.	**Archaeology and Cultural Heritage** ■ 0.2 km of the ROW is located within areas of archaeological potential ■ The Project footprint crosses 0.9 ha of land with archaeological potential.	■ The Project footprint for RL2 crosses a slightly larger areas of archaeological potential than the Project footprint for RL1. Areas of archaeological potential crossed by the Project footprint for RL1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction.
Aboriginal Considerations	**Traditional Land and Resource Use** ■ Wabauskang First Nation ▪ The ROW crosses an area identified by interviewed community members from Wabauskang First Nation, where they actively harvest plants and animals, and where they camp overnight[(e)].	**Traditional Land and Resource Use** ■ Wabauskang First Nation ▪ The ROW crosses an area identified by interviewed community members from Wabauskang First Nation, where they actively harvest plants and animals, and where they camp overnight[(e)].	■ No discernable difference between the Project footprint for RL1 and RL2 relative to defined TLRU areas crossed. Also, no TLRU features were identified within the Project footprint based on currently available data shared by Lac Seul First Nation.

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) Wabauskang First Nation TLRU data was provided by Wabauskang First Nation through a third-party consultant.

The size of RL2, in both length of the ROW and area of the Project footprint, is shorter and smaller than RL1. This can be attributed to RL1 being routed to avoid areas identified by Goldcorp, as presented in Figure 2. The increased ROW length and Project footprint area of RL1 to adhere to Goldcorp's identified areas to avoid results in increased Project-environment interactions with several metrics assessed in Table 1, including: area of mapped wetlands, number of water courses crossed, area of terrestrial land cover, area of suitable wildlife habitat for most criteria species and resource management areas.

The ROW for both RL1 and RL2 cross an area identified for TLRU by interviewed community members from Wabauskang First Nation, where they actively harvest plants and animals, and where they camp overnight, aligned with an existing road. The recommendation from Wabauskang First Nation is to minimize activity in that area and to avoid of application of harmful chemical herbicides or pesticides in this area. The alignments of RL1 and RL2 within the defined use area are overlapping or immediately adjacent to each other, so the anticipated effects of the route revision to RL1 are anticipated to be consistent with the assessment findings in the Final ESR. Relevant mitigation includes confining Project construction activities to surveyed and marked areas, limiting the Project footprint to the extent feasible such as use of existing access roads and routing the 40-m-wide transmission line alignment ROW in proximity to existing and planned linear disturbances as much as possible. Wataynikaneyap has a Chief's directive that no herbicides will be used.

For several metrics, including area of Category 3 habitat for caribou (Boreal population), RL1 does not result in new areas being crossed, as the entire Project footprint for both corridors are present within these features. The Project footprint for RL1 does cross a smaller area of suitable maternity roost habitat for little brown myotis and area of archaeological potential, and overall, the Project footprint for both RL1 and RL2 crosses similar amount of suitable habitat for most wildlife species criteria (not threatened or endangered). The Project footprint for RL1 does cross three mining claims whereas RL2 avoids mining claims, owned by Goldcorp and Rubicon Minerals Corporation (Rubicon); however, Goldcorp has indicated their preference for RL1 due to the avoidance of the identified areas. Wataynikaneyap has engaged with both claim holders about the proposed transmission line alignment change and has previously engaged with both companies regarding the crossing of other mining claim areas required for the Pikangikum Distribution Line.

Construction and operation and maintenance activities for the alignment around Goldcorp Red Lake Mine Site east of Nungesser Road are predicted to have similar effects and mitigation to those described in Section 10.0 Net Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. The one reasonably foreseeable development (RFD) that intersects with the alignment around Goldcorp Red Lake Mine Site east of Nungesser Road is the Red Lake Mining Complex Project (Section 4.0 of the Final ESR). This RFD was also intersected by the Project footprint assessed in the Final ESR, and as such, the alignment around Goldcorp Red Lake Mine Site east of Nungesser Road is predicted to have similar effects and mitigation to those described in Section 11.0 Cumulative Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. 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 potential effects of the Project for route the alignment around Goldcorp Red Lake Mine Site east of Nungesser Road is predicted to reach the same conclusions for the EA criteria in Sections 5.0 to 8.0; 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. Therefore, RL1 is ultimately preferred for the Project since the transmission line avoids Goldcorp's identified areas to be avoided.

3.1.2 Alignment Within Whitefeather Forest North of Poplar Hill First Nation

The route for the Project segment identified as the *Alignment Within Whitefeather Forest North of Poplar Hill First Nation* is located on the Red Lake subsystem, north of the Poplar Hill Junction Switching Station (Figure 3). The 115-kV ROW connection in this segment includes a refinement of approximately 6 km of the ROW to fully align with the planned and approved Whitefeather Forest Road Corridor west of McInnes Lake. As noted in Section

3.10.3.1 Routing from Red Lake to Seven First Nation Communities, this section of the 115 kV line that continues north to the boundary of the Whitefeather Forest was designed to be generally consistent with the Whitefeather Forest Management Plan road network and this routing incorporated WFCRMA Steering Committee input and input from both Poplar Hill First Nation and Pikangikum First Nation, in addition to TLRU data provided by both communities during engagement, and existing TLRU data provided by a third party on behalf of Poplar Hill First Nation. The proposed revision improves alignment with this initial direction providing during the EA process on routing for the line (alignment to the degree possible with the planned Whitefeather Forest roads) and also mitigate disturbance to an area of Category 1 caribou (Boreal population) habitat.

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 analysis metrics that were considered for the amended Project footprint and Project footprint assessed in the Final ESR presented in Appendix A. Generally, habitat for wildlife criteria is similarly abundant and distributed along both Project footprints. No bald eagle nests, potential bat hibernacula features, or potential wolverine den habitat were observed along either of the corridors during field surveys in 2016 and 2017.

Table 2: Corridor Refinement Analysis – Alignment Within Whitefeather Forest North of Poplar Hill First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Within Whitefeather Forest North of Poplar Hill First Nation		
	WF1 (Amended Project Footprint)	**WF2 (Project Footprint Considered in the Final ESR)**	
Technical	**Size** ■ ROW is approximately 6.2 km in length. ■ The Project footprint has an area of 27.5 ha.	**Size** ■ ROW is approximately 5.7 km in length. ■ The Project footprint has an area of 24.9 ha.	■ No discernable difference between the ROW length and Project footprint area of WF1 and WF2.
Natural Environment	**Wetlands[a]** ■ The Project footprint crosses 0.8 ha of mapped wetlands.	**Wetlands[a]** ■ The Project footprint crosses 0.2 ha of mapped wetlands.	■ No discernable difference between the Project footprints for WF1 and WF2. The Project footprint for WF2 crosses a slightly smaller area of mapped wetland.
	Waterbodies and Watercourses[b] ■ The Project footprint crosses one mapped watercourse. ■ The Project footprint crosses two mapped waterbodies[c] for an 0.2 ha.	**Waterbodies and Watercourses[b]** ■ The Project footprint crosses two mapped watercourses. ■ The Project footprint crosses one mapped waterbody[c] for an area of 0.3 ha.	■ No discernable difference between the Project footprints for WF1 and WF2.

Table 2: Corridor Refinement Analysis – Alignment Within Whitefeather Forest North of Poplar Hill First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Within Whitefeather Forest North of Poplar Hill First Nation		
	WF1 (Amended Project Footprint)	**WF2 (Project Footprint Considered in the Final ESR)**	
	Vegetation[(d)] ■ The Project footprint crosses: ▪ 18.8 ha of natural landcover (terrestrial); ▪ 0.0 ha of anthropogenic disturbance; and ▪ 8.7 ha of natural disturbance	**Vegetation[(d)]** ■ The Project footprint crosses: ▪ 23.6 ha of natural landcover (terrestrial); ▪ 0.0 ha of anthropogenic disturbance; and ▪ 0.6 ha of natural disturbance	■ The Project footprint for WF1 crosses a smaller area of natural landcover (terrestrial) and a greater amount of natural disturbance landcover.
Natural Environment (cont'd)	**Wildlife Habitat** ■ The Project footprint crosses 16.2 ha of moose potential suitable habitat. ■ The Project footprint does not cross potential suitable habitat for horned grebe. ■ The Project footprint crosses 16.2 ha of bald eagle potential suitable habitat. ■ The Project footprint crosses 8.7 ha of Canada warbler potential suitable habitat ■ The Project footprint crosses 11.3 ha of common nighthawk potential suitable habitat. ■ The Project footprint crosses 16.2 ha of olive-sided flycatcher potential suitable habitat.	**Wildlife Habitat** ■ The Project footprint crosses 20.5 ha of moose potential suitable habitat. ■ The Project footprint crosses 0.6 ha of horned grebe potential suitable habitat. ■ The Project footprint crosses 20.5 ha of bald eagle potential suitable habitat. ■ The Project footprint crosses 3.3 ha of Canada warbler potential suitable habitat. ■ The Project footprint crosses 3.7 ha of common nighthawk potential suitable habitat. ■ The Project footprint crosses 20.5 ha of olive-sided flycatcher potential suitable habitat.	■ The Project footprint for WF1 crosses smaller areas of potential suitable habitat for all wildlife criteria species (not Threatened or Endangered species), except for Canada warbler and common nighthawk.
	Threatened and endangered species or their habitat (Caribou (Boreal population)) ■ The Project footprint crosses 11.6 ha of Category 1 (nursery) habitat ■ The Project footprint crosses 15.8 ha of Category 2 habitat ■ The Project footprint crosses 6.3 ha of caribou (Boreal population) travel linkages (Spring – April). ■ The Project footprint crosses >0.1 ha of caribou (Boreal population) travel linkages (Fall – November).	**Threatened and endangered species or their habitat (Caribou (Boreal population))** ■ The Project footprint crosses 16.2 ha of Category 1 (nursery) habitat ■ The Project footprint crosses 8.6 ha of Category 2 habitat ■ The Project footprint crosses 13.2 ha of caribou (Boreal population) travel linkages (Spring – April). The Project footprint crosses 6.8 ha of caribou (Boreal population) travel linkages (Fall – November).	■ The Project footprint for WF1 crosses smaller areas of Category 1 (nursery) habitat and travel linkages for caribou (Boreal population) than WF2. ■ The Project footprint for WF1 crosses smaller areas of Category 2 habitat for caribou (Boreal population) than WF1.

Table 2: Corridor Refinement Analysis – Alignment Within Whitefeather Forest North of Poplar Hill First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Alignment Within Whitefeather Forest North of Poplar Hill First Nation		
	WF1 (Amended Project Footprint)	**WF2 (Project Footprint Considered in the Final ESR)**	
	Threatened and endangered species or their habitat (Wolverine) ■ The Project footprint crosses 27.5 ha of potential suitable wolverine habitat.	**Threatened and endangered species or their habitat (Wolverine)** ■ The Project footprint crosses 24.2 ha of potential suitable wolverine habitat.	■ No discernable difference between the Project footprints for WF1 and WF2. However, the Project footprint for WF1 crosses a slightly larger area of potential suitable wolverine habitat.
Natural Environment (cont'd)	**Threatened and endangered species or their habitat (Little brown myotis)** ■ The Project footprint crosses <0.1 ha of potential suitable little brown myotis maternity roosting habitat.	**Threatened and endangered species or their habitat (Little brown myotis)** ■ The Project footprint crosses 2.7 ha of potential suitable little brown myotis maternity roosting habitat.	■ The Project footprint for WF1 crosses a smaller area of potential suitable little brown myotis maternity roosting habitat.
Socio-economic	**Archaeology and Cultural Heritage** ■ <0.1 km of the ROW is located within areas of archaeological potential. ■ The Project footprint crosses <0.1 ha of area with archaeological potential.	**Archaeology and Cultural Heritage** ■ 0.2 km of the ROW is located within areas of archaeological potential. ■ The Project footprint has 1.0 ha of area with archaeological potential.	■ The Project footprint for WF1 crosses a smaller area of archaeological potential. Areas of archaeological potential crossed by the Project footprint for WF1 will be subject to Stage 2 archaeological assessments (and Stage 3 and Stage 4, as required) prior to Project construction.
Aboriginal Considerations	**Traditional Land and Resource Use** ■ No TLRU features classified as "avoid" were identified within the Project footprint based on currently available data.	**Traditional Land and Resource Use** ■ No TLRU features classified as "avoid" were identified within the Project footprint based on currently available data.	■ No discernable difference between the Project footprints for WF1 and WF2. No TLRU features classified as "avoid" were identified within the Project footprint based on currently available data.

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 realignment of approximately 6 km of the 115-kV transmission line ROW west of McInnes Lake with the planned Whitefeather Road corridor (i.e., WF1) results in a small increase in the length of the ROW and Project footprint area. The natural environment metrics presented in Table 2 for the WF1 Project footprint generally result in decreased effects, as the Project footprint for WF1 crosses a smaller area of archaeological potential, natural

landcover, potential suitable habitat for all wildlife criteria species (not Threatened or Endangered species), except for Canada warbler and common nighthawk, all threatened and endangered species, including a Category 1 habitat and travel linkages for woodland caribou (Boreal population). In addition, WF1 fully aligns with the planned Whitefeather Forest Road corridor through this area where no existing linear corridors are present and has been identified by the Ministry of Natural Resources and Forestry (MNRF) through their feedback on the Final ESR as the preferred alignment at this location to reduce potential effects to Category 1 caribou habitat.

Construction and operation and maintenance activities for the alignment within Whitefeather Forest north of Poplar Hill First Nation are predicted to have similar effects and mitigation to those described in Section 10.0 Net Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. The one RFD identified in Section 4.0 of the Final ESR that intersects with the alignment around Whitefeather Forest north of Poplar Hill First Nation is the planned and approved Whitefeather Forest all-season road. In the Final ESR, this segment of the Project aligned with the planned Whitefeather Forest Road to a lesser extent, leading to additional disturbance in Category 1 caribou habitat than proposed through this Addendum. As such, the alignment within Whitefeather Forest north of Poplar Hill First Nation is predicted to have similar effects and recommended mitigation to those described in Section 11.0 Cumulative Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. Potential for cumulative effects to caribou habitat will be reduced in this section of the line through improved alignment with the planned Whitefeather Forest Road. 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.

Although the Project footprint for WF1 does result in increases to some metrics, such as mapped wetlands, potential common nighthawk and Canada warbler habitat, and Category 2 habitat for woodland caribou (Boreal population), the potential effects of the Project that includes this route refinement is predicted to reach the same conclusions for the EA criteria in Sections 5.0 to 8.0; 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. Therefore, Wataynikaneyap will be implementing the WF1 alignment within Whitefeather Forest north of Poplar Hill First Nation route refinement.

3.2 Pickle Lake Subsystem

3.2.1 Connection from Muskrat Dam First Nation to Sachigo Lake First Nation

The route for the Project segment identified as the *Connection from Muskrat Dam First Nation to Sachigo Lake First Nation* is located on the Pickle Lake subsystem north of Muskrat Dam First Nation to Sachigo Lake First Nation (Figures 4 and 5). Approximately 70 km of the 115-kV ROW to Sachigo Lake First Nation has been revised as preferred by the community of Sachigo Lake First Nation, to allow avoidance of wet areas and areas of potential permafrost that do not optimize constructability, and to reduce the amount of Category 1 caribou (Boreal population) habitat crossed. This adjustment is understood to also better align with a planned future high-ground winter road considered by Sachigo Lake First Nation, which was discussed during engagement on the Draft ESR, but required additional technical information to implement (Section 2.3A1.20 Sachigo Lake First Nation in Appendix 2.3A Aboriginal Record of Engagement Summary Report, Final ESR). Through this adjustment to the 115-kV line, an equivalent adjustment to the substation location north of Muskrat Dam First Nation was made.

Appendix 3.10A of the Draft and Final ESR for Phase 2 include consideration of alternatives for the 115 kV line to Sachigo Lake First Nation. The options considered included 2-km-wide corridor options within which the 40-m-wide transmission line alignment ROW would have been defined. The first corridor (S1) considered was the 2-km-wide corridor within which the Project footprint assessed in the Final ESR was defined, and the second (S2) had a similar alignment to that of the MD1 option considered here, although the point of connection to the 115 kV line to Bearskin Lake First Nation was further to the southwest than that considered in the MD1 option. The S1 option was identified as preferred in Appendix 3.10A based on the initial preference of the community of Sachigo Lake First Nation to encroach least on their watershed protection area defined around Sachigo Lake with the commitment that "on-going engagement with the community and regulatory agencies would continue with respect to the S1 alternative, acknowledging concerns from a head trapper regarding proximity to Sachigo Lake, evolving future roads planning by the community and the presence of wetlands, potential for permafrost presence, several water crossings and Category 1 caribou habitat crossed by the ROW". During more recent engagement meetings with the community on May 2 and June 11, 2018 the proposed revision of the alignment between Muskrat Dam First Nation and Sachigo Lake First Nation was a primary point of discussion. As noted in the Record of Engagement (Final ESR Appendix 2.4A) for the May 2, 2018 meeting, "the purpose of this meeting was to seek agreement from Sachigo Lake First Nation on a path forward that would allow for the EA to continue while accounting for the community's perspectives on the routing of the line in light of recent concerns on the engineering of the alignment." During the meeting, the proposed area for further study within which the current line revision is defined, was identified. Wataynikaneyap committed to the current EA addendum process.

A high-level baseline characterization for this amended Project footprint with comparison to the Project footprint assessed in the final ESR for this segment of the Project is presented in Table 3. The full set of analysis metrics that were considered for the preliminary and modified Project footprints are presented in Appendix A. Generally, habitat for wildlife criteria is present along both Project footprints. No bald eagle nests, or likely habitat for potential bat hibernacula were identified along either corridor through historic records or field survey observations in the area in 2016 and 2017.

Table 3: Connection from Muskrat Dam First Nation to Sachigo Lake First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Connection from Muskrat Dam First Nation to Sachigo Lake First Nation		
	MD1 (Amended Project Footprint)	**MD2 (Project Footprint Considered in the Final ESR)**	
Technical	**Size** ■ ROW is 67.4 km in length. ■ The Project footprint is 303.0 ha.	**Size** ■ ROW is 75.3 km in length. ■ The Project footprint is 324.7 ha.	■ The Project footprint for MD1 is slightly smaller than the Project footprint for MD2.
	Existing Infrastructure ■ The Project footprint crosses three existing roads at three crossing points. ■ The Project footprint crosses three other existing linear corridors.	**Existing Infrastructure** ■ The Project footprint crosses three existing roads at seven crossing points. ■ The Project footprint crosses two other existing linear corridors.	■ No discernable difference between the Project footprints for MD1 and MD2. Roads are crossed the Project footprint for MD1 fewer times than the Project footprint for MD2.
Natural Environment	**Areas of Natural and Scientific Interest (ANSI)** ■ There is 12.3 ha of mapped Candidate ANSI's within the Project footprint.	**Areas of Natural and Scientific Interest (ANSI)** ■ There is 14.1 ha of mapped Candidate ANSI's within the Project footprint.	■ No discernable difference between the Project footprints for MD1 and MD2. The Project footprint for MD1 crosses a slightly smaller area of Candidate ANSI's than the Project footprint for MD2.
	Wetlands[(a)] ■ The Project footprint crosses 115.8 ha of mapped wetlands.	**Wetlands[(a)]** ■ The Project footprint crosses 149.8 ha of mapped wetlands.	■ The Project footprint for MD1 crosses a smaller area of mapped wetlands than the Project footprint for MD2.
	Waterbodies and Watercourses[(b)] ■ The Project footprint crosses 19 mapped watercourses. ■ The Project footprint crosses two mapped waterbodies[(c)] for an 0.3 ha.	**Waterbodies and Watercourses[(b)]** ■ The Project footprint crosses 26 mapped watercourses. ■ The Project footprint crosses five mapped waterbodies[(c)] for an area of 1.3 ha.	■ The Project footprint for MD1 crosses fewer mapped watercourses and waterbodies.
	Vegetation[(d)] ■ The Project footprint crosses: ▪ 265.9 ha of natural landcover (terrestrial); ▪ 0.0 ha of anthropogenic disturbance; and ▪ 29.3 ha of natural disturbance.	**Vegetation[(d)]** ■ The Project footprint crosses: ▪ 312.1 ha of natural landcover (terrestrial); ▪ 0.1 ha of anthropogenic disturbance; and ▪ 0.7 ha of natural disturbance.	■ The Project footprint for MD1 crosses a smaller area of natural landcover (terrestrial) than MD2. ■ The Project footprint for MD2 crosses a smaller area of natural disturbance than MD1.

Table 3: Connection from Muskrat Dam First Nation to Sachigo Lake First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Connection from Muskrat Dam First Nation to Sachigo Lake First Nation		
	MD1 (Amended Project Footprint)	**MD2 (Project Footprint Considered in the Final ESR)**	
Natural Environment (cont'd)	**Wildlife Habitat** ■ The Project footprint crosses 149.2 ha of potential suitable moose habitat. ■ The Project footprint crosses 0.4 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 146.6 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 106.2 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 120.4 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 165.9 ha of potential suitable olive-sided flycatcher habitat. ■ The Project footprint crosses 146.8 ha of mapped potential habitat supporting provincially tracked wildlife species.	**Wildlife Habitat** ■ The Project footprint crosses 106.8 ha of potential suitable moose habitat. ■ The Project footprint crosses 1.0 ha of potential suitable horned grebe habitat. ■ The Project footprint crosses 95.4 ha of potential suitable bald eagle habitat. ■ The Project footprint crosses 122.3 ha of potential suitable Canada warbler habitat. ■ The Project footprint crosses 98.6 ha of potential suitable common nighthawk habitat. ■ The Project footprint crosses 167.3 ha of potential suitable olive-sided flycatcher habitat. ■ The Project footprint crosses 214.5 ha of mapped potential habitat supporting provincially tracked wildlife species.	■ The Project footprint for MD2 crosses smaller areas of potential suitable habitat for some wildlife criteria species (not Threatened or Endangered species), specifically moose, bald eagle and common nighthawk. ■ The Project footprint for MD1 crosses smaller areas of potential suitable habitat for Canada warbler. ■ There is no discernable difference between the area of potential suitable habitat for remaining wildlife criteria species, specifically horned grebe and common nighthawk for the Project footprints of MD1 and MD2. ■ The Project footprint of MD1 crosses a smaller area of mapped potential habitat supporting provincially tracked wildlife species.
	Threatened and endangered species or their habitat (Caribou (Boreal population)) ■ The Project footprint does not cross any Category 1 (nursery) habitat ■ The Project footprint crosses 38.2 ha of Category 1 (winter) habitat ■ The Project footprint does not cross any Category 1 (nursery and winter overlap) habitat ■ The Project footprint crosses 241.9 ha of Category 2 habitat ■ The Project footprint crosses 22.9 ha of Category 3 habitat	**Threatened and endangered species or their habitat (Caribou (Boreal population))** ■ The Project footprint crosses 9.6 ha of Category 1 (nursery) habitat ■ The Project footprint crosses 162.3 ha of Category 1 (winter) habitat ■ The Project footprint crosses 15.1 ha of Category 1 (nursery and winter overlap) habitat ■ The Project footprint crosses 87.5 ha of Category 2 habitat ■ The Project footprint crosses 50.2 ha of Category 3 habitat	■ The Project footprint for MD1 crosses a smaller area of Category 1 (nursery), Category 1 (winter) and Category 1 (nursery and winter overlap) and Category 3 habitat. ■ The Project footprint for MD2 crosses a smaller area of Category 2 habitat.

Table 3: Connection from Muskrat Dam First Nation to Sachigo Lake First Nation

Key Factors	Corridor Refinements		Corridor Refinement Analysis
	Connection from Muskrat Dam First Nation to Sachigo Lake First Nation		
	MD1 (Amended Project Footprint)	**MD2 (Project Footprint Considered in the Final ESR)**	
Natural Environment (cont'd)	**Threatened and endangered species or their habitat (Wolverine)** ■ The Project footprint crosses 295.3 ha of potential suitable wolverine habitat.	**Threatened and endangered species or their habitat (Wolverine)** ■ The Project footprint crosses 312.8 ha of potential suitable wolverine habitat.	■ No discernable difference between the Project footprints for MD1 and MD2, although the Project footprint MD1 crosses a slightly smaller area of wolverine habitat.
	Threatened and endangered species or their habitat (Little brown myotis) ■ The Project footprint crosses 57.6 ha of potential suitable little brown myotis maternity roosting habitat.	**Threatened and endangered species or their habitat (Little brown myotis)** ■ The Project footprint crosses 49.7 ha of potential suitable little brown myotis maternity roosting habitat.	■ No discernable difference between the Project footprints for MD1 and MD2, although the Project footprint MD2 crosses a slightly smaller area of potential suitable little brown myotis maternity roosting habitat.
Socio-economic	**Archaeology and Cultural Heritage** ■ 8.16 km of the ROW is located within areas of archaeological potential. ■ The Project footprint crosses 36.0 ha of area with archaeological potential.	**Archaeology and Cultural Heritage** ■ 3.5 km of the ROW is located within areas of archaeological potential. ■ The Project footprint has 15.7 ha of area with archaeological potential.	■ The Project footprint for MD1 crosses a larger area of archaeological potential. 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.
Aboriginal Considerations	**Traditional Land and Resource Use** Bearskin Lake First Nation ■ The Project footprint crosses an identified trapping area Sachigo Lake First Nation ■ Three traplines and the community's watershed protection area are crossed by the Project footprint. ■ An area identified as sensitive is crossed by the Project footprint. ■ An area where caribou were observed is crossed by the Project footprint.	**Traditional Land and Resource Use** Bearskin Lake First Nation ■ The Project footprint crosses an identified trapping area Sachigo Lake First Nation ■ Three traplines and the community's watershed protection area are crossed by the Project footprint. ■ An area identified as sensitive is crossed by the Project footprint. ■ Caribou crossings and an area where caribou were observed are crossed by the Project footprint.	■ No discernable difference between the Project footprints for MD1 and MD2. No TLRU features classified as "avoid" were identified within the Project footprint based on currently available data.

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 realignment of the 115-kV transmission line ROW north of Muskrat Dam First Nation to Sachigo Lake First Nation (i.e., MD1) results in a moderate decrease in the length of the ROW and Project footprint area. The natural environment metrics presented in Table 3 for the MD1 Project footprint generally result in decreased effects, as the Project footprint for MD1 crosses a smaller area of Candidate ANSI's, mapped wetlands, mapped watercourses and waterbodies, natural landcover, and potential suitable habitat for Canada warbler, wolverine and Category 3 habitat for woodland caribou (Boreal population). Most importantly, the Project footprint for MD1 presents a drastic reduction in the amount of Category 1 habitat (nursery, winter, and nursery - winter overlap) for caribou (Boreal population) (Figure 6). Options that reduce overlap with the year-round areas of caribou habitat crossed by MD2 has been identified by the Ministry of Natural Resources and Forestry (MNRF) through their feedback on the Final ESR as the preferred alignment at this location to reduce potential effects to Category 1 caribou habitat. In addition, MD1 is understood to better align with the preference of the community of Sachigo Lake First Nation, and with the planned future high-ground winter road identified by Sachigo Lake First Nation through engagement on the Draft ESR.

Construction and operation and maintenance activities for the alignment for Muskrat Dam First Nation to Sachigo Lake First Nation are predicted to have similar effects and mitigation to those described in Section 10.0 Net Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. The one RFD that intersects with the alignment around Goldcorp Red Lake Mine Site east of Nungesser Road is the Four First Nations Group All-Season Road (Section 4.0 of the Final ESR). This RFD was also intersected by the Project footprint assessed in the Final ESR, but the alignment of the road within the section where this ROW adjustment is planned is expected to be similarly adjusted. As such, the alignment for Muskrat Dam First Nation to Sachigo Lake First Nation is predicted to have similar effects and mitigation to those described in Section 11.0 Cumulative Effects Assessment for the majority of the physical environment, biological environment and socio-economic environment criteria. 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. No points of reception were identified within 1 km of the adjusted substation location. Accordingly, the assessment of potential noise effects during operations presented in the EA is considered to be bounding of the potential effects of this adjusted location, and the effects and mitigation identified in Section 10.0 and 11.0 in the Final ESR for noise are applicable.

Although the Project footprint for MD1 does result in increases to some metrics, such crossing greater areas of potential suitable habitat for moose, bald eagle, and common nighthawk, potential maternity roosting habitat for little brown myotis, Category 2 habitat for caribou (Boreal population) and area of archaeological potential, the potential effects of the Project that includes this route refinement is predicted to reach the same conclusions for the EA criteria in Sections 5.0 to 8.0; 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. Therefore, Wataynikaneyap will be implementing the MD1 alignment for the Muskrat Dam First Nation to Sachigo Lake First Nation route refinement.

4.0 ENGAGEMENT

This Addendum to the Final ESR is subject to a 15-day public review period release, as prescribed in Section 3.9 of the *Hydro One Class EA for Minor Transmission Facilities, 1992*. Wataynikaneyap will post this Addendum to the Final ESR to their website and post hard copies to document repositories within the vicinity of the planned route refinements. The Notice of Submission of Addendum will be shared with Aboriginal communities and stakeholders within the vicinity of the route refinements assessed, as well as to those who provided comments on the Final ESR during its' public review period that were relevant to/applicable in the areas of the route refinements.

Should any comments on the Addendum to the Final ESR be provided within the 15-day public comment period, Wataynikaneyap will engage with the commenter to resolve their comments.

5.0 CONCLUSION

Overall, the potential effects and mitigation measures outlined in the Final ESR effectively address the proposed design changes to the alignments of the three identified segments of the 115-kV transmission line. The updated information presented in this Addendum to the Final ESR 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 three 115-kV transmission line segments will result in reduced environmental effects compared with the original alignment. The proposed re-alignments adhere to Goldcorp's defined exclusion areas in proximity to the Red Lake Mine, have greater alignment with the planned Whitefeather Forestry road and Sachigo Lake First Nation's planned high-ground winter road, and result in an overall reduction of sensitive Category 1 caribou (boreal population) habitat crossed by the Project.

6.0 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

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TABLES

Table A-1: Corridor Analysis Factors and Metrics

Factor	Metric Category	Metric
Technical	Size	■ Total length of the 115-kV right-of-way (ROW) ■ Area of Project footprint (ha)
	Existing Infrastructure	■ Number of existing roads crossed by the Project footprint (number of separately identified roads) ■ Number of points where existing roads are crossed by the Project footprint (includes multiple crossings of the same road) ■ Number of other existing linear corridors crossed by the Project footprint (e.g., communication lines).
Natural Environment	Areas of Natural and Scientific Interest	■ Area of mapped candidate Areas of Natural and Scientific Interest (ANSI) (Earth Science and Life Science) in the Project footprint (ha)
	Wetlands[a]	■ Area of mapped wetlands in the Project footprint (ha)
	Waterbodies and Watercourses[b]	■ 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	■ 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	■ Area of suitable habitat (see Section 6.3 and Appendix 6.3B of the Final ESR for suitable habitat assumptions) for all wildlife criteria species (not Threatened or Endangered species) in the Project footprint (i.e., moose; horned grebe; bald eagle, Canada warbler, common nighthawk, and olive-sided flycatcher) (ha) ■ Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint [e] (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	■ Number of bald eagle nesting sites crossed by the Project footprint

Table A-1: Corridor Analysis Factors and Metrics

Factor	Metric Category	Metric
Natural Environment (cont'd)	Threatened and Endangered species or their Habitat	■ Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery areas) in the Project footprint (ha) ■ 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) ■ 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) ■ Number of observed boulder fields or blowdown areas representing potential wolverine den habitat crossed by the Project footprint (identified through aerial reconnaissance – see Section 6.3 of the Final ESR) ■ Area of potential suitable maternity roosting habitat for little brown myotis in the Project footprint (ha) ■ Number of moderate to high potential bat hibernacula within the Project footprint ■ Area of suitable habitat for bank swallow in the Project footprint (ha)
Land Use, Resource Management	Land Designation	■ 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	■ Number of mapped trails (OTN and non-OTN[(e)] crossed by the Project footprint ■ Length of mapped trails (OTN and non-OTN) crossed by the Project footprint (km)
	Points of Reception	■ Number of potential receptor points within 1 km of a Project substation [(f)]

Table A-1: Corridor Analysis Factors and Metrics

Factor	Metric Category	Metric
Socio-economic and Cultural	Tourism and Recreation	■ 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 (g) ■ Number of bait harvest areas (BHA) crossed by the Project footprint ■ Area of BHA crossed by the Project footprint (ha)
	Archaeology and Cultural Heritage	■ Number of archaeological sites crossed by the Project footprint (h) ■ Length of ROW within area of archaeological potential ■ Area of archaeological potential in the Project footprint (ha)
Aboriginal Consideration	Traditional Land and Resource Use, including spiritual or cultural sites(i)	■ 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.

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

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

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

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

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

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

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

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

Table A-2: Metrics Considered in the Addendum to the Final ESR

Factor	Metric Category	Metrics	Red Lake Subsystem				Pickle Lake Subsystem	
			Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		Alignment Within Whitefeather Forest North of Poplar Hill First Nation		Connection from Muskrat Dam First Nation to Sachigo Lake First Nation	
			RL1 (Revised Project Footprint)	RL2 (Project Footprint Considered in the Final ESR)	WF1 (Revised Project Footprint)	WF2 (Project Footprint Considered in the Final ESR)	MD1 (Revised Project Footprint)	MD2 (Project Footprint Considered in the Final ESR)
Technical	Size	Total length of the 115-kV ROW (km)	10.1	7.9	6.2	5.7	67.39	75.3
		Area of Project footprint (ha)	39.8	31.8	27.5	24.9	302.9	324.7
	Existing Infrastructure	Number of existing roads crossed by the Project footprint	2	1	0	0	3	3
		Number of points where existing roads are crossed by the Project footprint (includes multiple crossings of the same road)	3	3	0	0	3	7
		Number of other existing linear corridors crossed by the Project footprint (e.g., communication lines)	0	1	0	0	3	2
Natural Environment	Areas of Natural and Scientific Interest (ANSI)	Area of mapped candidate ANSI (Earth Science and Life Science) in the Project footprint (ha)	0.0	0.0	0.0	0.0	12.3	14.1
	Wetlands	Area of mapped wetlands[a] in the Project footprint (ha)	11.9	2.2	0.8	0.2	115.7	149.8
	Waterbodies and Watercourses[b]	Number of mapped watercourses crossed by the Project footprint	10	6	1	2	19	26
		Area of mapped waterbodies (not including watercourses) in the Project footprint (ha)	0.2	0.3	0.2	0.3	0.3	1.3
		Number of mapped waterbodies (not including watercourses) crossed by the Project footprint	2	1	2	1	2	5
	Vegetation	Area of mapped occurrences of provincially tracked vegetation species in the Project footprint (ha)[c]	0.0	0.0	0.0	0.0	0.0	0.0
		Area of natural landcover[d] (terrestrial) within the Project footprint (ha)	36.8	30.8	18.8	23.6	265.9	312.1
		Area of anthropogenic disturbance[d] within the Project footprint (ha)	3.0	0.6	0.0	0.0	0.0	0.1
		Area of natural disturbance[d] within the Project footprint (ha)	0.0	0.0	8.7	0.6	29.3	0.7
	Wildlife Habitat	Area of suitable habitat for moose in the Project footprint (ha)	25.4	20.2	16.2	20.5	149.2	106.8
		Area of suitable habitat for horned grebe in the Project footprint (ha)	0.0	0.4	0.0	0.6	0.4	1.0
		Area of suitable habitat for bald eagle in the Project footprint (ha)	25.4	20.2	16.2	20.5	146.6	95.4
		Area of mapped occurrences of potential habitat supporting provincially tracked wildlife species in the Project footprint (ha) [c]	0.0	0.2	0.0	0.0	146.8	214.5

Factor	Metric Category	Metrics	Red Lake Subsystem				Pickle Lake Subsystem	
			Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		Alignment Within Whitefeather Forest North of Poplar Hill First Nation		Connection from Muskrat Dam First Nation to Sachigo Lake First Nation	
			RL1 (Revised Project Footprint)	RL2 (Project Footprint Considered in the Final ESR)	WF1 (Revised Project Footprint)	WF2 (Project Footprint Considered in the Final ESR)	MD1 (Revised Project Footprint)	MD2 (Project Footprint Considered in the Final ESR)
		Number of spawning sites crossed by the Project footprint	0	0	0	0	0	0
Natural Environment (cont'd)	Wildlife Habitat (cont'd)	Number of fish and wildlife feeding or staging areas	0	0	0	0	0	0
		Area of suitable habitat for Canada warbler in the Project footprint (ha)	21.8	16.4	8.7	3.3	106.2	122.3
		Area of suitable habitat for common nighthawk in the Project footprint (ha)	12.7	11.2	11.3	3.7	120.4	98.6
		Area of suitable habitat for olive-sided flycatcher in the Project footprint (ha)	26.8	20.2	16.2	20.5	166.0	167.3
	Nesting Sites	Number of bald eagle nesting sites crossed by the Project footprint	0	0	0	0	0	0
	Threatened and Endangered species or their Habitat	Area of mapped Caribou (boreal population) Category 1 high-use habitat (nursery areas) in the Project footprint (ha)	0.0	0.0	11.6	16.2	0.0	9.6
		Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use areas) in the Project footprint (ha)	0.0	0.0	0.0	0.0	38.2	162.3
		Area of mapped Caribou (boreal population) Category 1 high-use habitat (winter use and nursery overlap areas) in the Project footprint (ha)	0.0	0.0	0.0	0.0	0	15.1
		Area of mapped Caribou (boreal population) Category 2 seasonal range habitat in the Project footprint (ha)	0.0	0.0	15.8	8.6	241.8	87.5
		Area of mapped Caribou (boreal population) Category 3 habitat in the Project footprint (ha)	39.8	31.8	0.0	0.0	15.4	7.5
		Area of Caribou (boreal population) travel corridors (Spring; April) crossed by the Project footprint (ha)	0.0	0.0	6.3	13.2	0	0
		Area of Caribou (boreal population) travel corridors (Fall; November) crossed by the Project footprint (ha)	0.0	0.0	< 0.1	6.8	0	0
		Area of suitable wolverine habitat in the Project footprint (ha)	39.8	31.4	27.5	24.2	292.3	312.8
Natural Environment (cont'd)	Threatened and Endangered species or their Habitat (cont'd)	Number of boulder fields or blowdown areas representing potential wolverine den habitat crossed by the Project footprint (identified through aerial reconnaissance – see Section 6.3 of the Final ESR)	0	0	0	0	0	0
		Area of suitable maternity roosting habitat for little brown myotis in the Project footprint (ha)	17.5	15.8	< 0.1	2.7	57.6	49.7

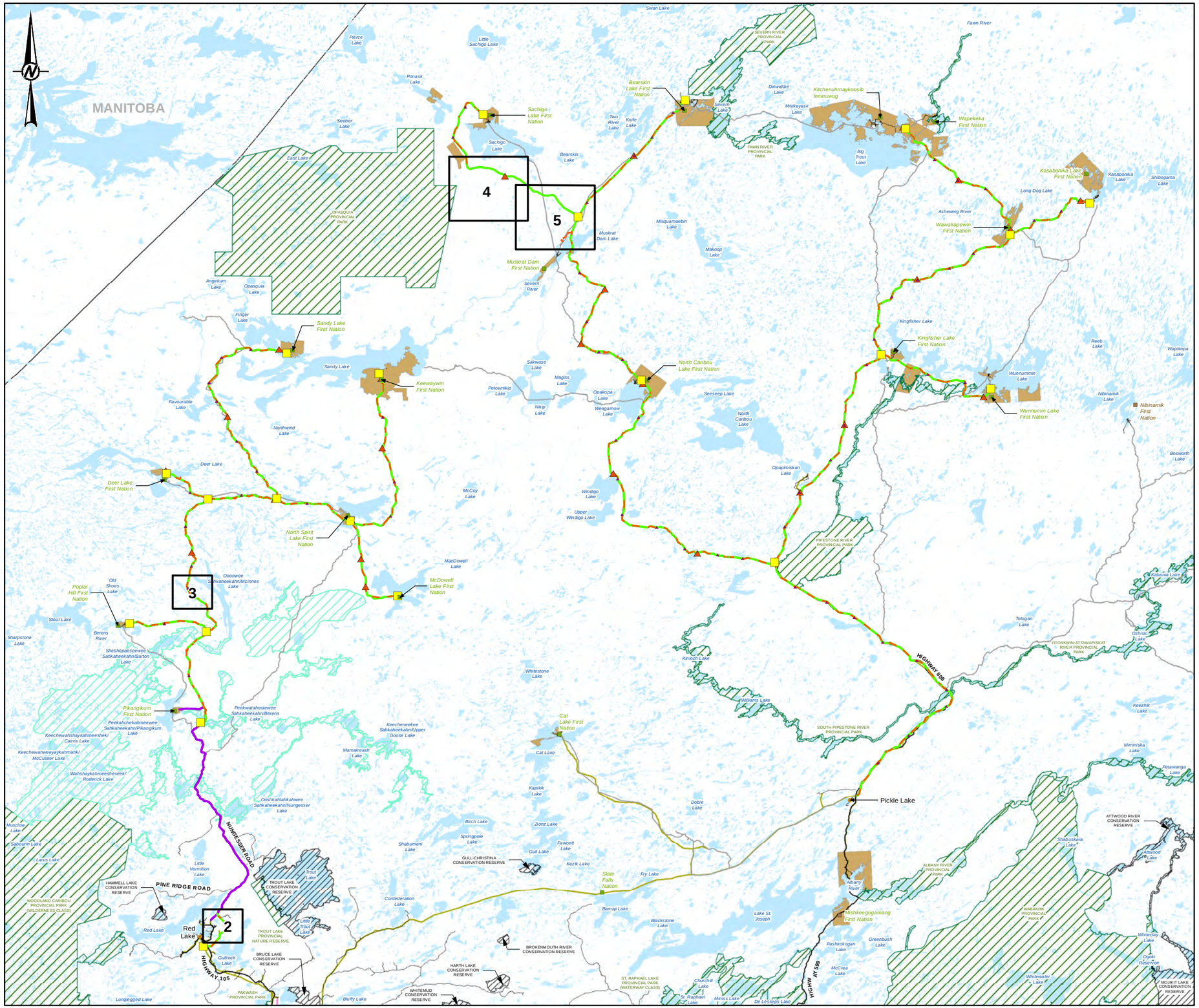
Factor	Metric Category	Metrics	Red Lake Subsystem				Pickle Lake Subsystem	
			Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		Alignment Within Whitefeather Forest North of Poplar Hill First Nation		Connection from Muskrat Dam First Nation to Sachigo Lake First Nation	
			RL1 (Revised Project Footprint)	RL2 (Project Footprint Considered in the Final ESR)	WF1 (Revised Project Footprint)	WF2 (Project Footprint Considered in the Final ESR)	MD1 (Revised Project Footprint)	MD2 (Project Footprint Considered in the Final ESR)
Natural Environment (cont'd)	Threatened and Endangered species or their Habitat (cont'd)	Number of potential bat hibernacula crossed by the Project footprint (identified through aerial reconnaissance – see Section 6.3 of the Final ESR)	0	0	0	0	0	0
		Area of suitable habitat for bank swallow in the Project footprint (ha)	0.0	0.0	0.0	0.0	0.0	0.0
Land Use, Resource Management	Land Designations	Area of Enhanced Management Areas within the Project footprint (ha)	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
		Number of mining claims crossed by the Project footprint	3	0	0	0	0	0
		Area of active mining claims in the Project footprint (ha)	4.9	0.0	0.0	0.0	0.0	0.0
		Area of existing aggregate pits in the Project footprint (ha)	0.4	0.0	0.0	0.0	0.0	0.0
		Number of mapped trails crossed by the Project footprint [e]	7	7	0	0	0	0
		Length of mapped trails crossed by the Project footprint (km)	0.4	0.6	0.0	0.0	0.0	0.0
Socio-economic and cultural	Points of Reception[g]	Number of potential receptor points within 1 km of a Project substation [f]	No substation within the area of the alignment		No substation within the area of the alignment		0	0
	Tourism and Recreation	Number of MNRF trapper cabin locations	0	0	0	0	0	0
		Area of tourism establishment areas crossed by the Project footprint (ha)	0.0	0.0	0	0	0.0	0.0
		Recreation points crossed by the Project footprint [g]	0	0	0	0	0	0
		Number of BHA crossed by the Project footprint	2	1	0	0	0	0
		Area of BHA crossed by the Project footprint (ha)	32.2	7.6	0.0	0.0	0.0	0.0
	Archaeology and Cultural Heritage	Number of archaeological sites crossed by the Project footprint [h]	0	0	0	0	0	0
		Length of ROW within area of archaeological potential (km)	0.1	0.2	<0.1	0.2	8.2	3.5
		Area of archaeological potential (ha) within the Project footprint	0.5	0.9	< 0.1	1.0	36.0	15.7

Factor	Metric Category	Metrics	Red Lake Subsystem				Pickle Lake Subsystem	
			Alignment Around Goldcorp Red Lake Mine Site East of Nungesser Road		Alignment Within Whitefeather Forest North of Poplar Hill First Nation		Connection from Muskrat Dam First Nation to Sachigo Lake First Nation	
			RL1 (Revised Project Footprint)	RL2 (Project Footprint Considered in the Final ESR)	WF1 (Revised Project Footprint)	WF2 (Project Footprint Considered in the Final ESR)	MD1 (Revised Project Footprint)	MD2 (Project Footprint Considered in the Final ESR)
Aboriginal Interests	Traditional Land and Resource Use, including spiritual or cultural sites(i)	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)	**Wabauskang First Nation** ■ The ROW crosses an area identified by interviewed community members from Wabauskang First Nation, where they actively harvest plants and animals, and where they camp overnight(j).	**Wabauskang First Nation** ■ The ROW crosses an area identified by interviewed community members from Wabauskang First Nation, where they actively harvest plants and animals, and where they camp overnight(j).	No TLRU features classified as “avoid” were identified within the Project footprint based on currently available data.	No TLRU features classified as “avoid” were identified within the Project footprint based on currently available data.	**Bearskin Lake First** ■ The Project footprint crosses an identified trapping area. **Sachigo Lake First Nations** ■ Three traplines and the community’s watershed protection area are crossed by the Project footprint. ■ An area identified as sensitive is crossed by the Project footprint. ■ An area where caribou were observed is crossed by the Project footprint.	**Bearskin Lake First** ■ The Project footprint crosses an identified trapping area. **Sachigo Lake First Nations** ■ Three traplines and the community’s watershed protection area are crossed by the Project footprint. ■ An area identified as sensitive is crossed by the Project footprint. ■ Caribou crossings and an area where caribou were observed are crossed by 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) Mapped trails include non-OTN trails available through LIO. No OTN trails were identified as being crossed by the defined corridors.
f) Points of reception were identified considering LIO datasets defining the locations of buildings, as well as locations of structures defined through the traditional and resource use study.
g) Recreation points are defined as access points, beaches, boat caches of all types, boat houses, designated campsites and picnic sites.
h) Archaeological site data may not be released publicly without the express permission of the Ministry of Tourism, Culture, and Sport to protect the integrity of these sites.
i) See Section 8.0 of the Final ESR for further information on traditional land and resource use information collected for the Project.
j) Wabauskang First Nation TLRU data was provided by Wabauskang First Nation through a third-party consultant.
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

EA Amendment Project

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access
- Planned Temporary Construction Camp
- Planned Temporary Laydown
- Planned Substation Location

- City/Town
- First Nation Community
- Wataynikaneyap Power Community (First Nation Community)
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Existing Electrical Transmission Line
- Natural Gas Pipeline
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Park
- Conservation Reserve
- First Nations Reserve
- Pikangikum Distribution Line
- Map Tile Index

0 50 100

1:1,500,000 KILOMETERS

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.AADNC-AANDC.GC.CA)
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CLIENT

WATAYNIKANEYAP POWER L.P.

PROJECT

PHASE 2: CONNECTING 17 REMOTE FIRST NATION COMMUNITIES

TITLE

CORRIDOR REFINEMENTS - OVERVIEW

CONSULTANT

Wataynikaneyap Power

Golder Associates

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	JMC/MM
REVIEWED	BT
APPROVED	AE

PROJECT NO.	CONTROL	REV.	FIGURE
1544751	GAL-005	1	**1**

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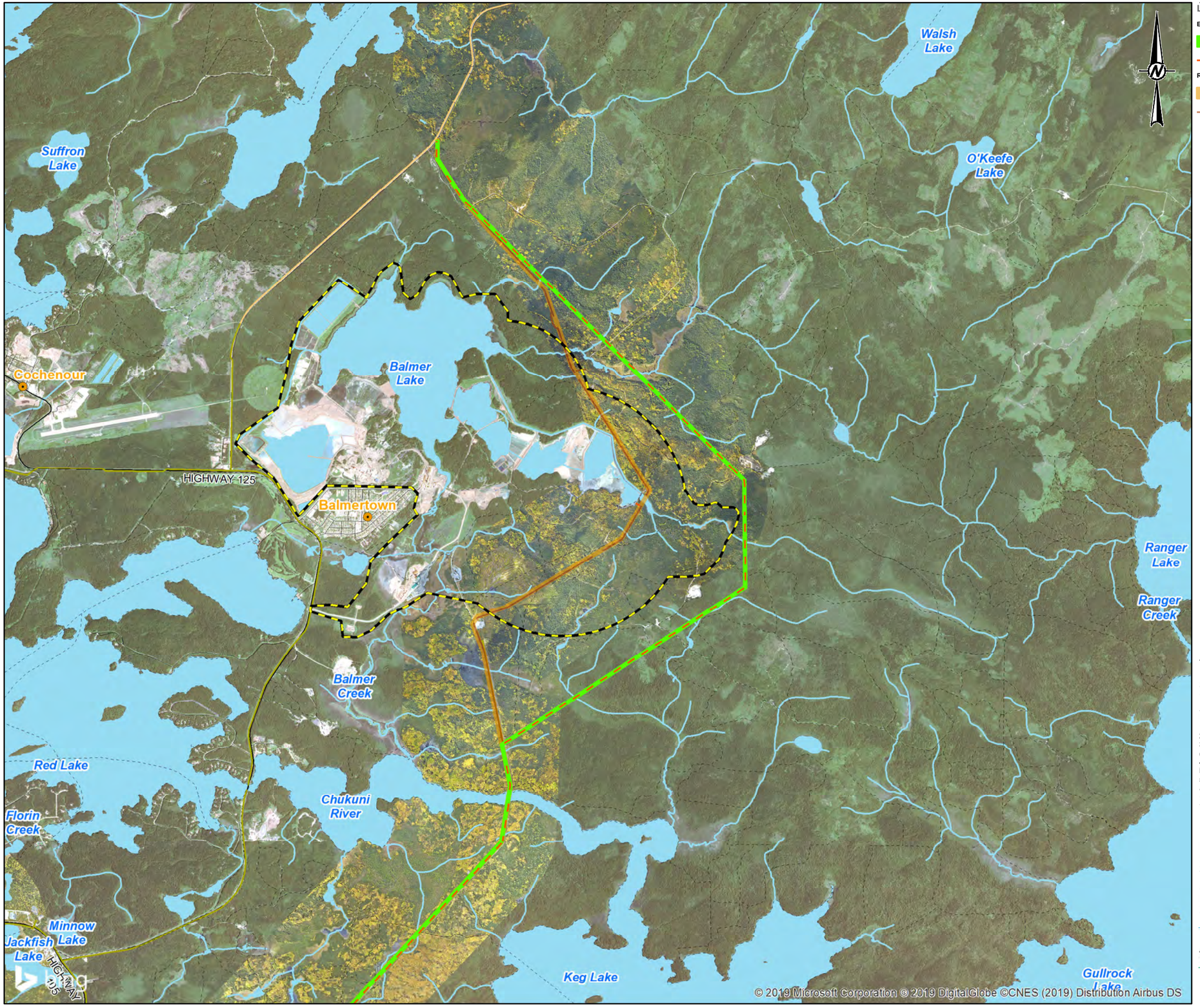


LEGEND

EA Addendum Footprint

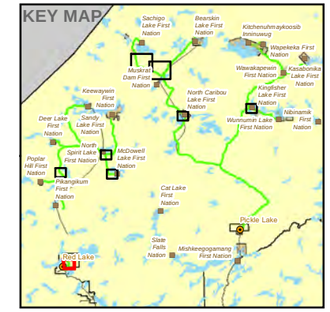
- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access Road

Revised Final ESR Project Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access Road

- City/Town
- Wataynikaneyap Power Community (First Nation Community)
- First Nation Community
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Trail
- Existing Electrical Transmission Line
- Communication Line
- Watercourse
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Parks
- Conservation Reserve
- First Nations Reserve
- Goldcorp Red Lake Mine – Boundary of features to be avoided

KEY MAP



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NOTE(S)

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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 AROUND GOLDCORP RED LAKE MINE SITE EAST OF NUNGESSER ROAD

CONSULTANT

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	SO
REVIEWED	BT
APPROVED	BT

PROJECT NO.	CONTROL	REV.	MAP
1544751	-	-	2

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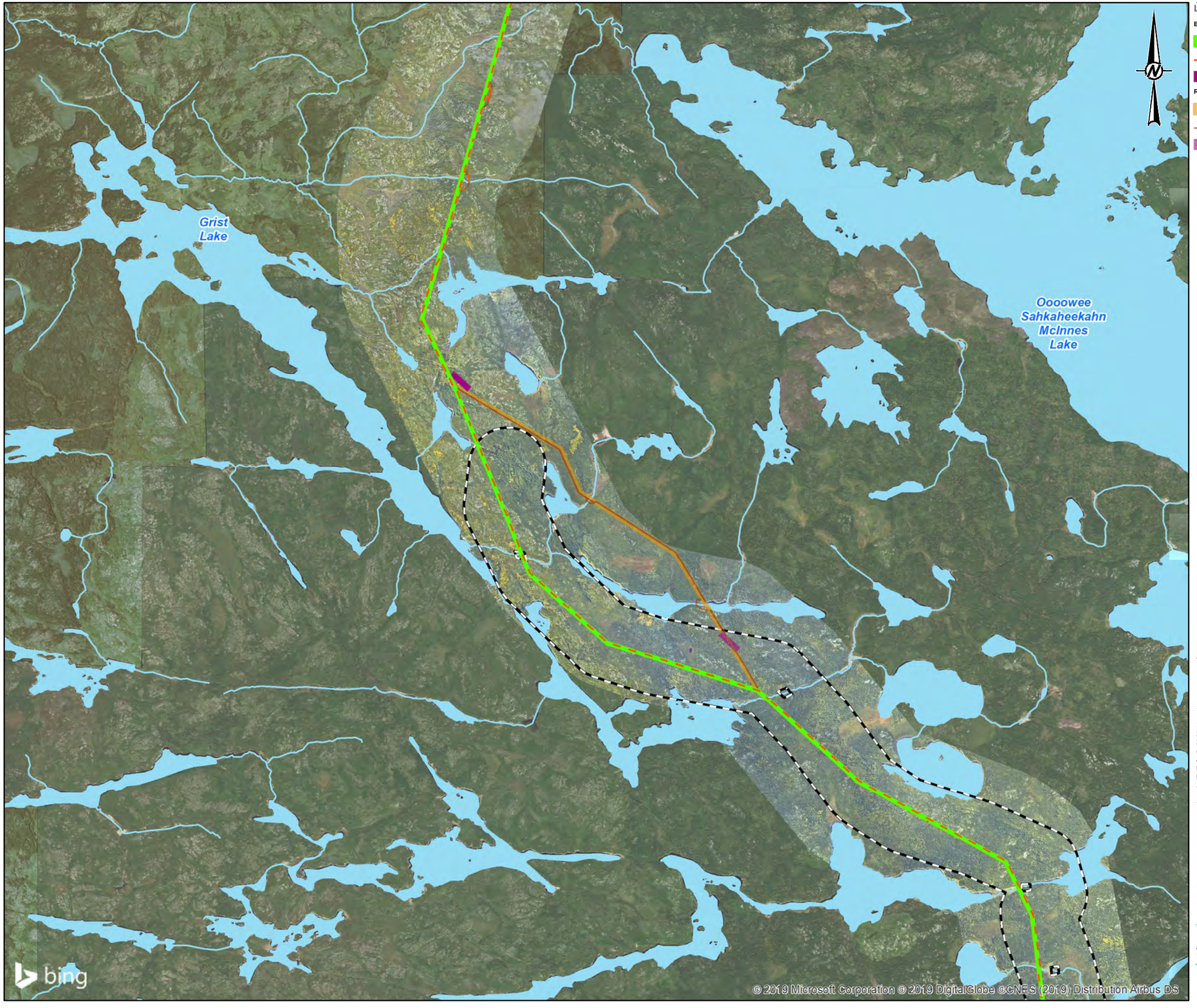


LEGEND

EA Addendum Footprint

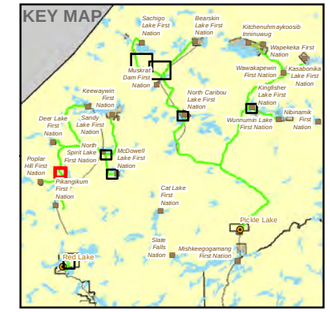
- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access Road
- Planned Temporary Laydown Area

Revised Final ESR Project Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access Road
- Planned Temporary Laydown Area

- City/Town
- Wataynikaneyap Power Community (First Nation Community)
- First Nation Community
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Trail
- Existing Electrical Transmission Line
- Communication Line
- Watercourse
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Parks
- Conservation Reserve
- First Nations Reserve
- Whitefeather Planned Road Corridor

KEY MAP



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NOTE(S)

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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 WITHIN WHITEFEATHER FOREST NORTH OF POPLAR HILL FIRST NATION

CONSULTANT

Wataynikaneyap Power

Golder Associates

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	SO
REVIEWED	BT
APPROVED	BT

PROJECT NO.	CONTROL	REV.	MAP
1544751	-	-	3

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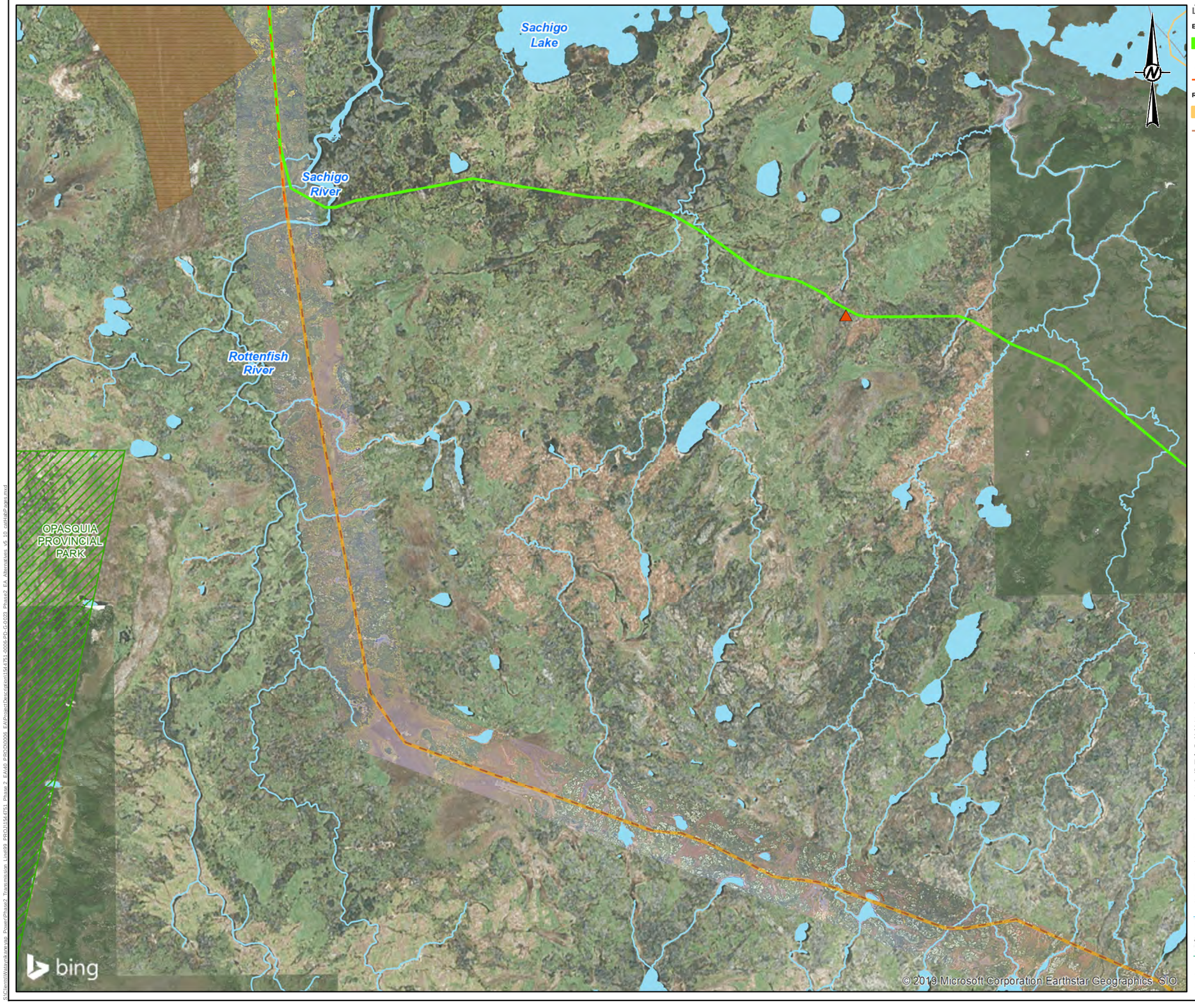


LEGEND

EA Amendment Footprint

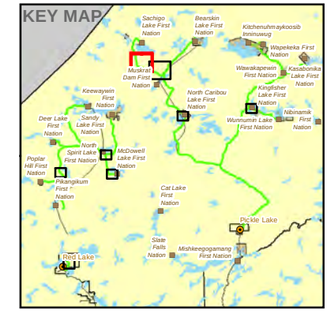
- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned Temporary Construction Camp
- Planned New Access

Revised Final ESR Project Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned New Access

- City/Town
- Wataynikaneyap Power Community (First Nation Community)
- First Nation Community
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Trail
- Existing Electrical Transmission Line
- Communication Line
- Watercourse
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Parks
- Conservation Reserve
- First Nations Reserve

KEY MAP



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CLIENT

WATAYNIKANEYAP POWER L.P.

PROJECT

PHASE 2: CONNECTING 17 REMOTE FIRST NATION COMMUNITIES

TITLE

CONNECTION FROM MUSKRAT DAM FIRST NATION TO SACHIGO LAKE FIRST NATION

CONSULTANT

Wataynikaneyap Power

Golder Associates

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	SO
REVIEWED	BT
APPROVED	BT

PROJECT NO.	CONTROL	REV.	MAP
1544751	-	-	4

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LEGEND

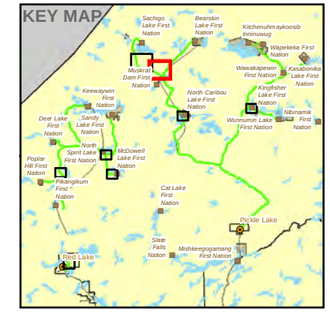
EA Amendment Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned Temporary Laydown
- Planned Substation Location
- Planned New Access

Revised Final ESR Project Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned Temporary Construction Camp
- Planned Temporary Laydown
- Planned Substation Location
- Planned New Access
- Community Distribution 25 kV Line 40-m-wide right-of-way (ROW)

- City/Town
- Wataynikaneyap Power Community (First Nation Community)
- First Nation Community
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Trail
- Existing Electrical Transmission Line
- Communication Line
- Watercourse
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Parks
- Conservation Reserve
- First Nations Reserve



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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

CONNECTION FROM MUSKRAT DAM FIRST NATION TO SACHIGO LAKE FIRST NATION

CONSULTANT

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	SO
REVIEWED	BT
APPROVED	BT

PROJECT NO.	CONTROL	REV.	MAP
1544751	-	-	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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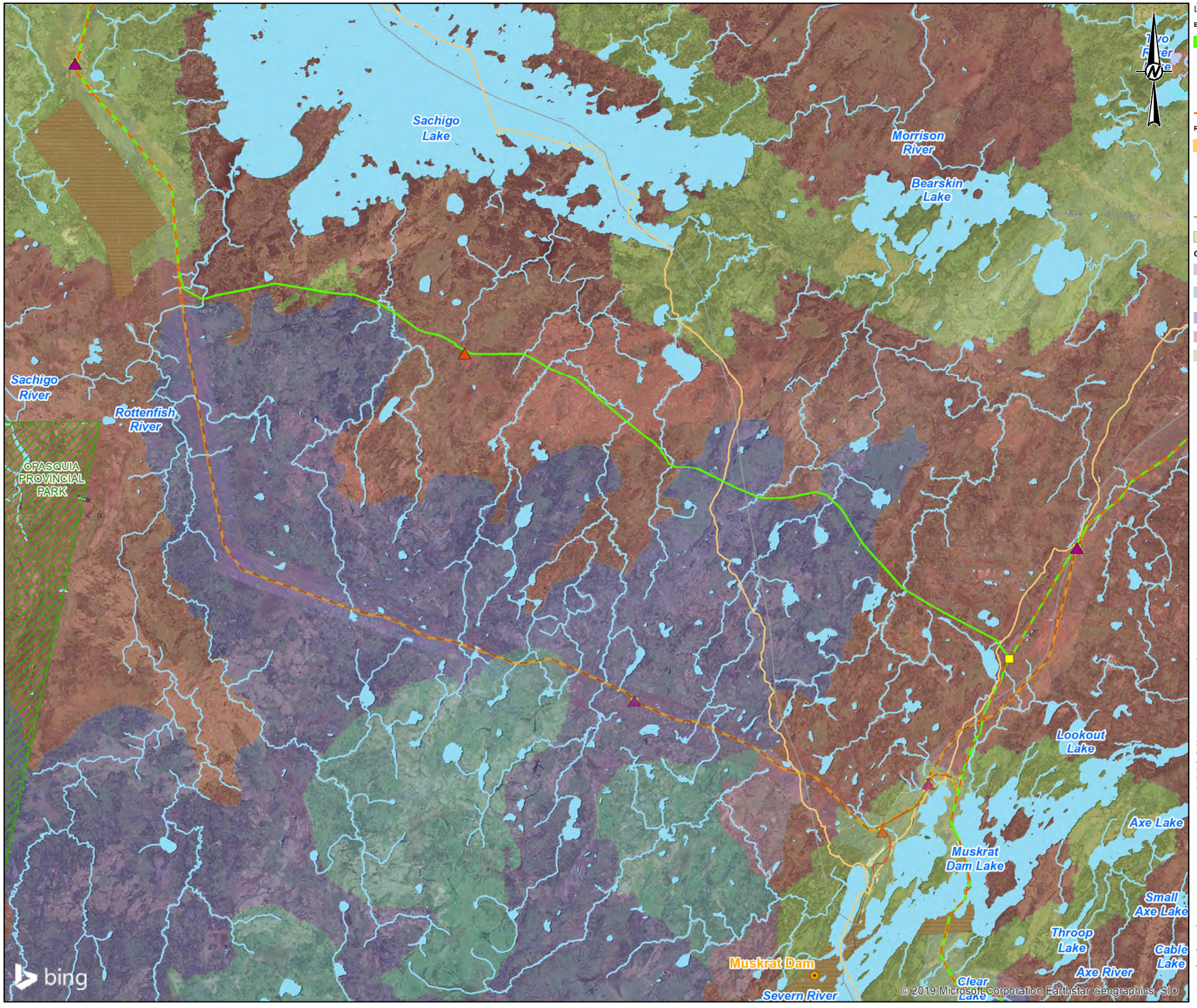


LEGEND

EA Amendment Footprint

- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned Temporary Construction Camp
- Planned Temporary Laydown
- Planned Substation Location
- Planned New Access

Revised Final ESR Project Footprint

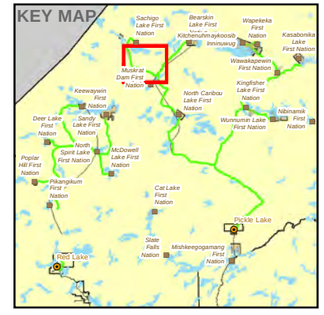
- Planned 40-m-wide Transmission Line Alignment right-of-way (ROW)
- Planned Temporary Construction Camp
- Planned Temporary Laydown
- Planned Substation Location
- Planned New Access
- Community Distribution 25 kV Line 40-m-wide right-of-way (ROW)

Caribou Habitat

- Category 1 - High Use Area (Nursery
- Category 1 - High Use Area (Nursery Area) and Category 1 - High Use Area (Winter Use Area)
- Category 1 - High Use Area (Winter Use Area)
- Category 2 - Seasonal Range
- Category 3 - Remaining Areas within the Range

- City/Town
- Wataynikaneyap Power Community (First Nation Community)
- First Nation Community
- Railway
- Major Roads / Highway
- Local Roads
- Winter Roads
- Trail
- Existing Electrical Transmission Line
- Communication Line
- Watercourse
- Waterbody
- Cheemuhnuhcheecheekuhtaykeehn (Dedicated Protected Areas)
- Provincial Parks
- Conservation Reserve
- First Nations Reserve

KEY MAP



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NOTE(S)

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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

CARIBOU HABITAT RELATIVE TO THE MUSKRAT DAM TO SACHIGO LAKE CONNECTION

CONSULTANT

Golder Associates

YYYY-MM-DD	2019-04-22
DESIGNED	JMC/MM
PREPARED	SO
REVIEWED	BT
APPROVED	BT

PROJECT NO.	CONTROL	REV.	MAP
1544751	-	-	6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 0 25mm

S:\Clients\Wataynikaneyap Power\Phase2 Transmission Line\09_DRG\1544751 Phase 2 EA\10_DRG\DG006 EA\Project\Description\1544751_0006_DG_G_0029_Phase2_EA_Alternatives_v6_10_Muskrat_Sachigo_Caribou.mxd