

# Waasigan Transmission Line Field Work Plan - Aquatics - Rev 2

September 2022

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# Table of Contents

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<b>1.0</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Purpose .....	5
1.2	Study Area.....	5
<b>2.0</b>	<b>Baseline Characterization Schedule .....</b>	<b>11</b>
<b>3.0</b>	<b>Health, Safety and Environment.....</b>	<b>12</b>
<b>4.0</b>	<b>Engagement.....</b>	<b>14</b>
4.1	Indigenous Participation.....	14
<b>5.0</b>	<b>Baseline Fish and Fish Habitat Characterization Studies.....</b>	<b>16</b>
5.1	Purpose .....	16
5.2	Desktop Analysis and Field Planning .....	16
5.2.1	Site Selection .....	17
5.2.2	Access and Field Maps .....	21
5.3	Field Surveys.....	22
5.3.1	Fish Habitat Assessment .....	22
5.3.2	Fish Community Sampling .....	25
5.3.3	Disinfecting Procedure .....	27
5.4	Quality Assurance and Quality Control .....	27
5.5	Schedule.....	28
5.6	Data Analysis and Reporting.....	29
<b>6.0</b>	<b>Baseline Surface Water Characterization Studies.....</b>	<b>30</b>
6.1	Purpose .....	30
6.2	Desktop Analysis and Field Planning .....	30
6.2.1	Site Selection .....	31
6.2.2	Access and Field Maps .....	31
6.3	Field Surveys.....	31
6.4	Quality Assurance and Quality Control .....	33
6.5	Schedule.....	33
6.6	Data Analysis and Reporting.....	34
<b>7.0</b>	<b>Closure.....</b>	<b>35</b>
	<b>References .....</b>	<b>36</b>



**Tables**

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Table 1-1: Revised Alternative Route Numbers and Grouping ..... 5

**Figures**

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Figure 1-1: Project Location ..... 3  
Figure 1-2: Aquatics Local Study Area ..... 8  
Figure 1-3: Aquatics Regional Study Area ..... 10

**Appendices**

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**Appendix A**

Alternative Route Evaluation and Net Effects Assessment of Preferred Route Project  
Footprint Overview

**Appendix B**

Comments and Responses to the 2022 Draft Aquatic and Terrestrial Field Work Plans for the  
Waasigan Transmission Line Environmental Assessment



# Abbreviations

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<b>Abbreviations</b>	<b>Definition</b>
c.	chapter
CFSA	<i>Crown Forest Sustainability Act, 1994</i>
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DFO	Fisheries and Oceans Canada
EA	environmental assessment
ECCE	Environment and Climate Change Canada
ESA	<i>Endangered Species Act, 2007</i>
Golder	Golder Associates Ltd., a member of WSP
GPS	Global Positioning System
Hydro One	Hydro One Networks Inc.
IK/TLRU	Indigenous Knowledge/traditional land and resource use
LCFSP	Licence to Collect Fish for Scientific Purposes
LSA	local study area
MECP	Ministry of the Environment, Conservation and Parks
MNRF	Ministry of Natural Resources and Forestry
MTO	Ministry of Transportation
NAD	North American Datum
NDMNRF	Ministry of Northern Development, Mines, Natural Resources and Forestry (formerly the MNRF)
NHIC	Natural Heritage Information Centre
Project	Waasigan Transmission Line
QA	Quality Assurance
QC	Quality Control
RGA	Rapid Geomorphic Assessment
ROW	right-of-way
RSA	regional study area
S.C.	Statute of Canada
S.O.	Statute of Ontario
SAR	species at risk
SARA	<i>Species at Risk Act</i>
SOCC	Species of Conservation Concern





SRank	subnational rank
ToR	Terms of Reference
TS	Transformer Station
UTM	Universal Transverse Mercator



# 1.0 Introduction

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Hydro One Networks Inc. (Hydro One) is completing a comprehensive environmental assessment (EA) for the Waasigan Transmission Line (the Project), 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 and the Dryden TS in the City of Dryden. The length of the transmission line will be approximately 350 kilometres (km). The Project also includes the separation of approximately 1 km of the double-circuit section of the existing 230 kV transmission line outside of Mackenzie TS in Atikokan (circuits F25A and D26A) into separate single-circuit transmission lines. In February 2022, the Ministry of the Environment, Conservation and Parks (MECP) approved the Amended Terms of Reference (ToR) for the Project. The EA will be carried out according to the approved Amended ToR and the requirements of the *Environmental Assessment Act*. The location of the Project is shown on Figure 1-1.

In anticipation of the Amended ToR approval and preparation for baseline data collection for the EA, draft field work plans were prepared in 2021 to document the Alternative Routes Field Work Plan and the 2021-2022 Field Work Plan for additional surveys for the preferred route. These plans were submitted in draft to the MECP and the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNR) as well as Indigenous communities for review and comment. Comments received on the draft field work plans have been considered in the preparation of this document. Generally, comments pertained to the proposed approach to baseline data collection and requested completion of a more comprehensive field survey program for the evaluation of alternative routes. For this reason, surveys previously proposed for the preferred route only will now be carried out across all alternative routes.

This document provides the field work plan proposed by Hydro One and Golder Associates Ltd., a member of WSP (Golder), to collect baseline data for surface water and aquatic ecology, support the alternative route evaluation for the selection of a preferred route, and ultimately to support the assessment of potential Project effects on fish and fish habitat and surface water criteria and indicators. The proposed field work plan to support the collection of baseline data collection for the terrestrial environment has been prepared under a separate cover, titled “Waasigan Transmission Line Field Work Plan – Terrestrial”.

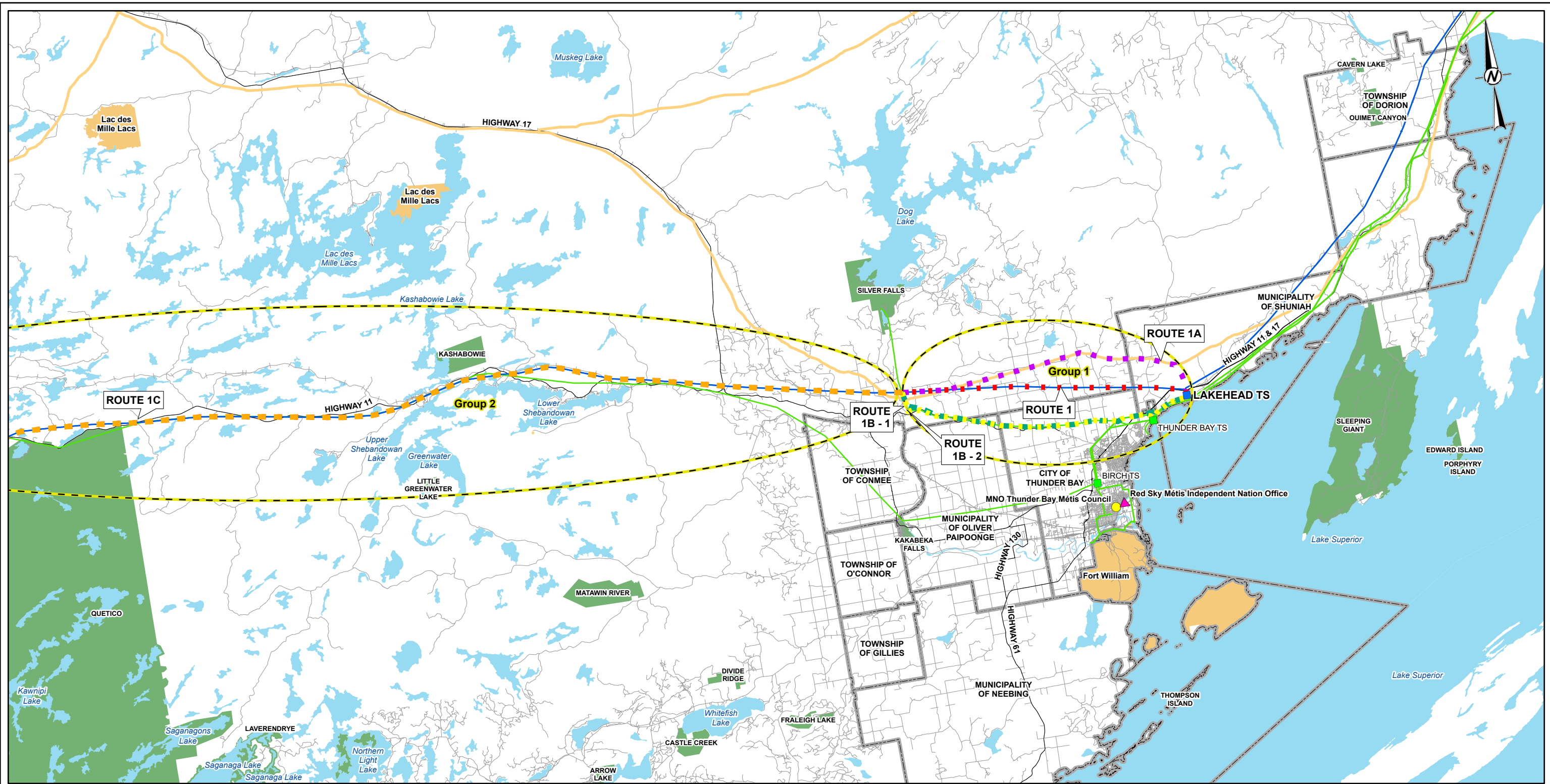
The aquatic field program will include the following surveys:

- Fish and Fish Habitat
- Surface Water

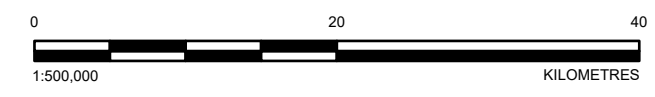
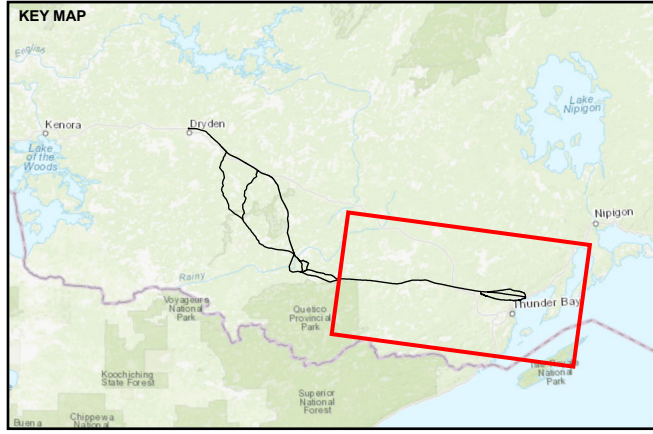


The field surveys will be completed on all alternative routes to support both the selection of a preferred route and the overall baseline characterization of the preliminary Project footprint of the preferred route once selected, and to inform design refinements (including avoidance) and mitigation to minimize adverse effects. A detailed diagram that shows both the alternative route evaluation process and how that process proceeds along with the surveys planned for the alternative routes is provided in Appendix A.





- LEGEND**
- GROUP 1
  - ALTERNATIVE ROUTE 1
  - ALTERNATIVE ROUTE 1A
  - ALTERNATIVE ROUTE 1B - 2
  - ALTERNATIVE ROUTE 1B - 1
  - GROUP 2
  - ALTERNATIVE ROUTE 1C
- MNO COUNCIL OFFICE
  - RED SKY MÉTIS INDEPENDENT NATION OFFICE
  - 115 KV TRANSFORMER STATION (TS)
  - 230 KV TRANSFORMER STATION (TS)
  - HIGHWAY
  - LOCAL ROAD
  - RAILWAY
  - NATURAL GAS PIPELINE
  - TRANSMISSION LINE (115 KV)
  - TRANSMISSION LINE (230 KV)
  - FIRST NATION RESERVE
  - WATERBODY
  - PROVINCIAL PARK
  - MUNICIPAL BOUNDARY

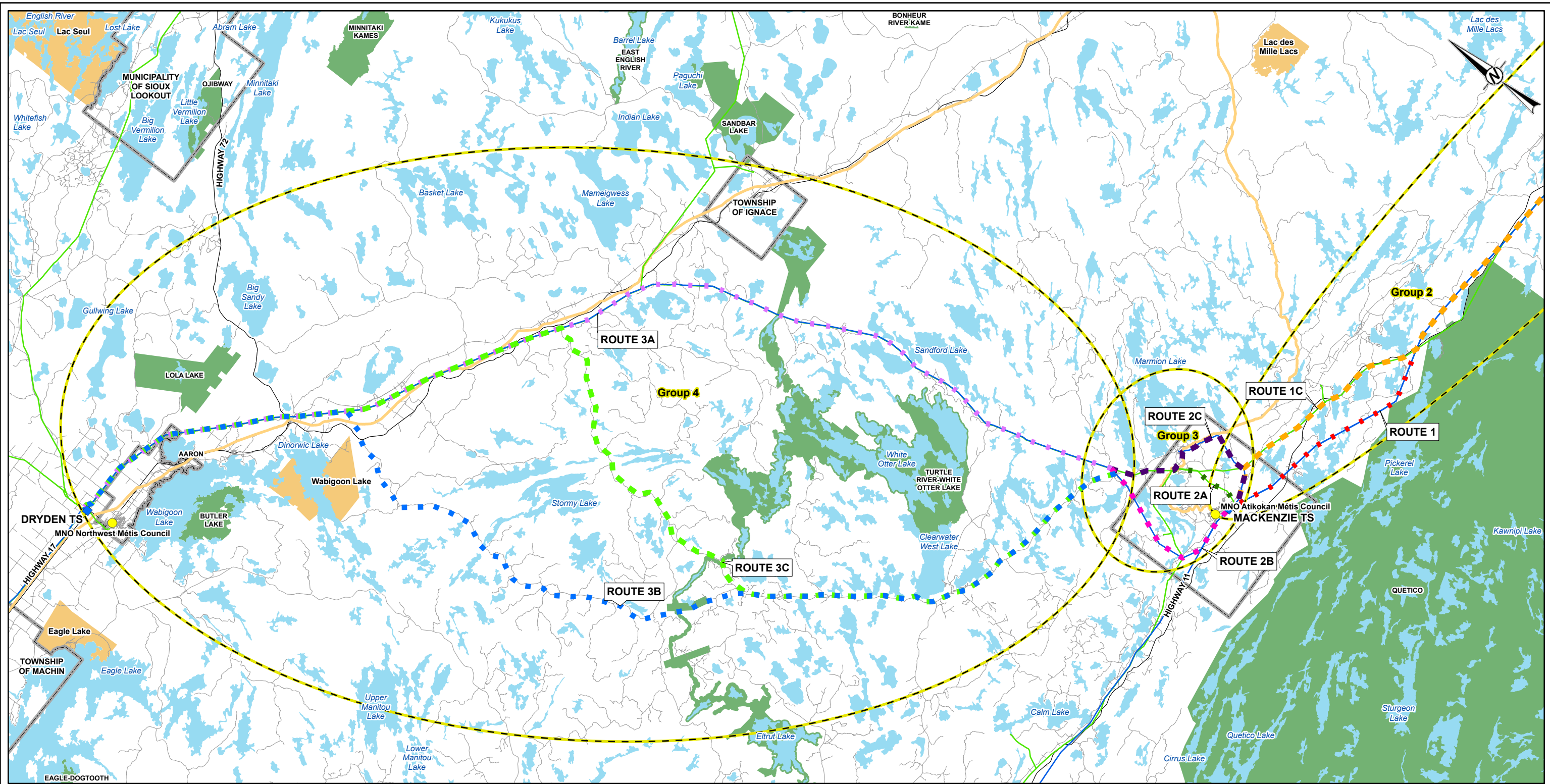


CLIENT	hydro one	
CONSULTANT	WSP GOLDER	
DATE	YYYY-MM-DD	2022-03-21
DESIGNED	HK	
PREPARED	MM	
REVIEWED	CS	
APPROVED		

<b>REFERENCE(S)</b>			
1. BASE DATA OBTAINED FROM THE MRNF JUNE 2020			
2. ROUTE ALTERNATIVES PROVIDED BY HYDRO ONE, AUGUST 2020			
3. PROJECTION: UTM ZONE 15 DATUM: NAD 83			
<b>PROJECT</b>			
WAASIGAN TRANSMISSION LINE			
<b>TITLE</b>			
PROJECT LOCATON			
PROJECT NO.	CONTROL	REV.	FIGURE
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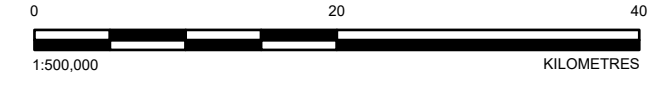
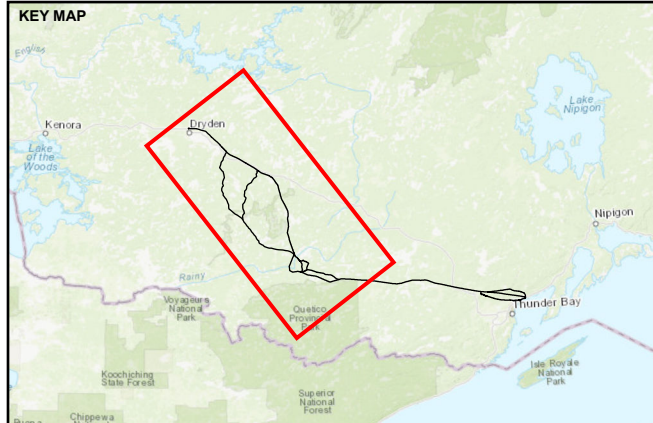
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**LEGEND**

GROUP 1	■	ALTERNATIVE ROUTE 1	●	MNO COUNCIL OFFICE
GROUP 2	■	ALTERNATIVE ROUTE 1C	■	230 KV TRANSFORMER STATION (TS)
GROUP 3	■	ALTERNATIVE ROUTE 2A	—	HIGHWAY
■	ALTERNATIVE ROUTE 2B	—	—	LOCAL ROAD
■	ALTERNATIVE ROUTE 2C	—	+	RAILWAY
GROUP 4	■	ALTERNATIVE ROUTE 3A	—	NATURAL GAS PIPELINE
■	ALTERNATIVE ROUTE 3B	—	—	TRANSMISSION LINE (115 KV)
■	ALTERNATIVE ROUTE 3C	—	—	TRANSMISSION LINE (230 KV)
			■	FIRST NATION RESERVE
			■	WATERBODY
			■	PROVINCIAL PARK
			▭	MUNICIPAL BOUNDARY



**REFERENCE(S)**  
 1. BASE DATA OBTAINED FROM THE MRNF JUNE 2020  
 2. ROUTE ALTERNATIVES PROVIDED BY HYDRO ONE, AUGUST 2020  
 3. PROJECTION: UTM ZONE 15 DATUM: NAD 83

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CONSULTANT	<b>wsp GOLDER</b>	
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TITLE	<b>PROJECT LOCATON</b>		
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## 1.1 Purpose

The purpose of baseline field surveys is to gather data about the surface water, fish and fish habitat components of the environment to support the evaluation of route alternatives and completion of a comprehensive EA for the Project. Overall, the surface water, fish and fish habitat baseline field surveys are designed to meet the following objectives:

- Characterize existing aquatic conditions in the area of the Project;
- Incorporate Indigenous Knowledge/traditional land and resource use (IK/TLRU) as part of baseline conditions, where possible;
- Identify potential environmental constraints associated with the existing surface water, fish and fish habitat conditions;
- Compile sufficient aquatic baseline data to support the evaluation of alternative routes for the Project; and
- Compile sufficient baseline data to enable an assessment of direct and indirect effects from the Project using the surface water, fish and fish habitat criteria and indicators.

## 1.2 Study Area

Study areas are required to define the spatial extent in which baseline information and data are collected and compiled to describe existing conditions in enough detail to enable the evaluation of alternative routes. The study areas will then be used to provide spatial assessment boundaries in which potential Project effects will be identified, understood, and assessed.

The alternative routes included in the approved Amended ToR (Hydro One 2021) are discrete route segments without common start and end points. In order to effectively compare the alternative routes on a quantitative basis in the alternative route evaluation, the routes have been re-numbered into four groupings with common start and end points, and some routes now share common sections. No new routes have been added and no routes were removed from those that were previously included in the Amended ToR. The alternative route groupings and revised route numbers are listed in Table 1-1 and shown on Figure 1-1.

**Table 1-1: Revised Alternative Route Numbers and Grouping**

Grouping	Alternative Routes
Group 1 (Lakehead TS to Node 1)	<ul style="list-style-type: none"> <li>• Alternative Route 1</li> <li>• Alternative Route 1A</li> <li>• Alternative Route 1B-1</li> <li>• Alternative Route 1B-2</li> </ul>
Group 2 (Node 1 to Node 3)	<ul style="list-style-type: none"> <li>• Alternative Route 1</li> <li>• Alternative Route 1C</li> </ul>



Grouping	Alternative Routes
Group 3 (Node 3 to Node 5)	<ul style="list-style-type: none"> <li>• Alternative Route 2A</li> <li>• Alternative Route 2B</li> <li>• Alternative Route 2C</li> </ul>
Group 4 (Node 5 to Dryden TS)	<ul style="list-style-type: none"> <li>• Alternative Route 3A</li> <li>• Alternative Route 3B</li> <li>• Alternative Route 3C</li> </ul>

A preliminary Project footprint for each alternative route has been identified and includes the following components:

- Transmission line right-of-way (ROW) approximately 40 to 45 metres (m) wide (in some sections of the ROW, additional width may be required depending on the specific location of the new transmission line, the local terrain, distance between the transmission structures and specific contractor requirements);
- Temporary and permanent access roads;
- Equipment and material laydown areas, as well as fly yards, construction/stringing pads and staging areas;
- Temporary construction camps;
- Construction offices;
- New aggregate pits and/or quarries, if required;
- Upgrades to existing transformer stations, including potential expansion of the fenced-in area of Lakehead TS, Mackenzie TS, and Dryden TS; and
- Separation of approximately 1 km of the double-circuit section of the existing 230 kV transmission line outside of Mackenzie TS in Atikokan (circuits F25A and D26A) into separate single-circuit transmission lines.

Preliminary local study areas (LSAs) are defined as areas outside of the preliminary Project footprint where measurable changes to the environment resulting from the proposed activities from any Project phase may be anticipated. Preliminary regional study areas (RSAs) are defined as areas within which the potential effects of the Project may interact with the effects of other projects, resulting in the potential for cumulative effects. The geographic boundary of LSAs and RSAs vary depending on the criteria and indicators that they are meant to assess. The LSA for surface water, fish and fish habitat component is proposed to be a 1 km area outside of the Project footprint (Figure 1-2). This 1 km area includes the 150 m alternative route corridors that were presented in the Amended ToR. The RSA is proposed to be at the tertiary watershed scale (Figure 1-3). These boundaries will be used to support the effects assessment and the overall baseline characterization for the preferred route and will be confirmed with agencies, as well as other pertinent stakeholders (e.g., Indigenous communities).





For fish and fish habitat and surface water, the field surveys will focus on the preliminary Project footprint described above and the immediate upstream and downstream environment.

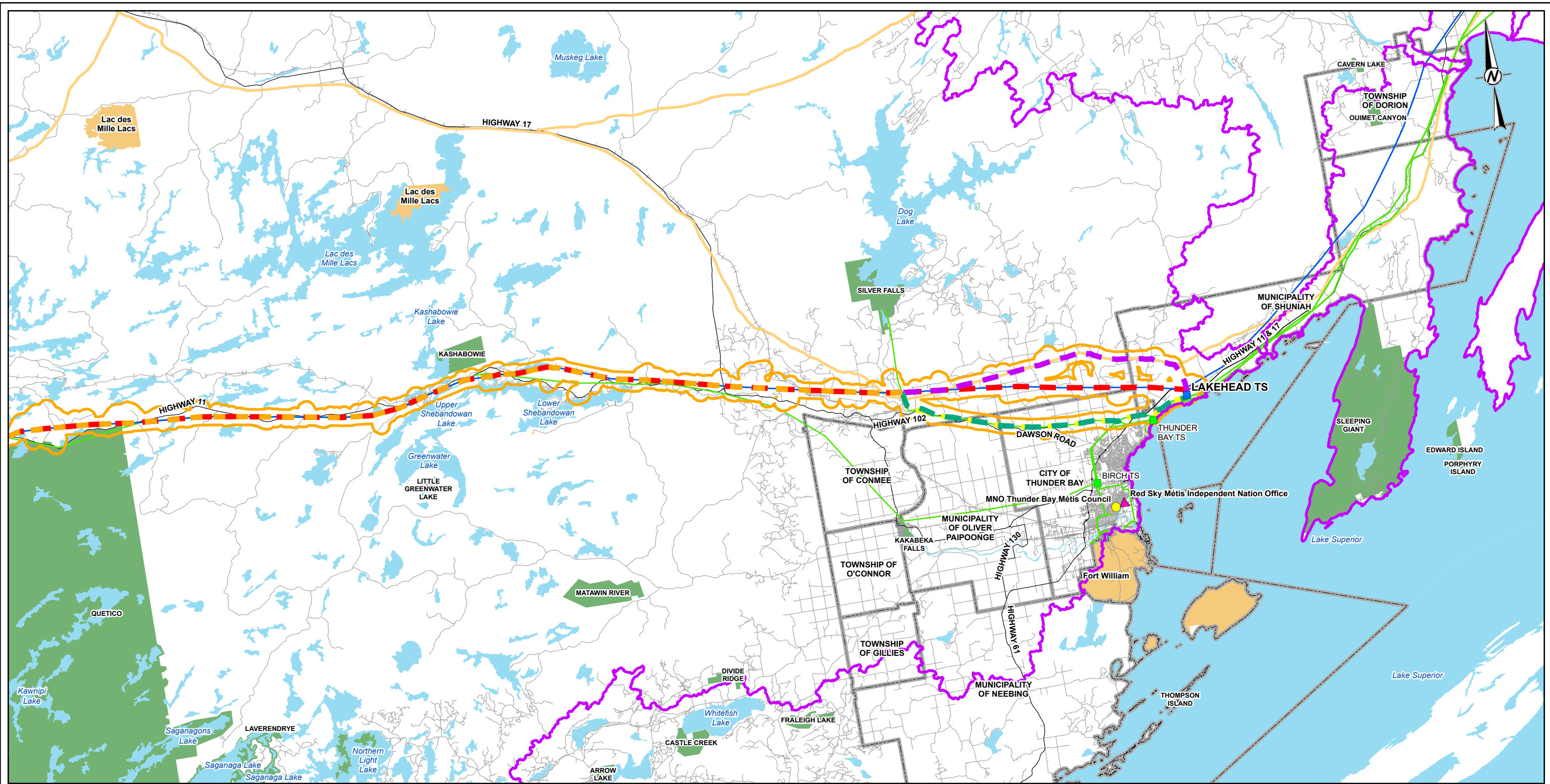
A desktop analysis for the EA will also include an assessment of fish communities, fish habitat and surface water conditions within the limits of the LSA of the preferred route. Data collected during the aerial reconnaissance in 2020 will be incorporated at the desktop level to facilitate planning.

Construction of linear developments, including transmission lines and access roads that either cross or encroach on waterbodies, may have effects to fish and fish habitat and surface water. The structure and function of aquatic ecosystems can be affected by human activity and disturbances through, for example, indirect changes to the quantity and quality of surface water conditions, or direct loss of habitat. To assess the potential changes to fish and fish habitat and surface water, an approach adapted from Stanfield (2017) and the Ontario Ministry of Transportation (Environmental Guide for Fisheries (interim) (MTO 2020) will be adopted. The total assessment area will consist of the 200 m area (i.e., 50 m upstream and 150 m downstream) including the width of the work area (i.e., average 45 m width of the transmission line; total of 6,750 m<sup>2</sup>). Data will be collected such that effects can be assessed using Fisheries and Oceans Canada's (DFO) Pathways of Effects diagrams. Other accepted industry standards that use a similar assessment distance include the Aggregate Resources of Ontario Provincial Standards (MNRF 2020), which considers impacts to fish and fish habitat within 120 m of a site and the surrounding area. When roads are adjacent to waterbodies, it is recommended that the road alignment include a 30 m setback between the road and any waterbodies to minimize the potential for accidental release and delivery of sediments or deleterious substances to the waterbodies and to preserve the existing riparian vegetation and bank conditions (MTO 2020; MNRF 2016).

A detailed waterbody crossing list will be created for the Project to identify the waterbodies that are expected to be crossed by the preliminary Project footprint. The field surveys for fish and fish habitat and surface water will focus on a subset of these waterbodies as described in Section 5.2.1, and, at each waterbody selected to survey, Golder will endeavour to survey 200 m, including 50 m upstream from the crossing and 150 m downstream from the crossing (see Section 5.3 for details). Where feasible for temporary work spaces, the Project design will incorporate the 30 m setback between the preliminary Project footprint and any adjacent waterbodies (i.e., waterbodies not crossed by the preliminary Project footprint but are beside it). Potential impacts to these waterbodies have standard mitigation measures that can reduce the risk of Project-related effects and as such, will not be surveyed. Waterbodies where the 30 m setback can not be applied will be surveyed using the same methods as waterbodies that are crossed. The field surveys are designed to capture the area where direct and immediate indirect effects from the Project on fish and fish habitat and surface water are anticipated.

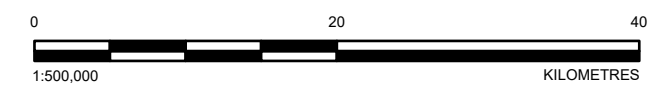
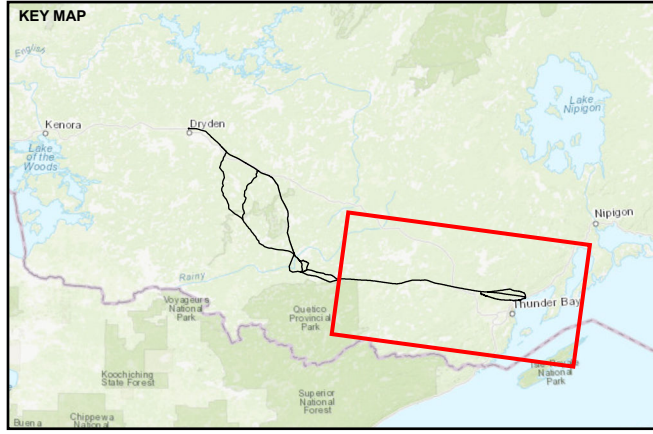






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	ALTERNATIVE ROUTE 1A		RED SKY MÉTIS INDEPENDENT NATION OFFICE
	ALTERNATIVE ROUTE 1B - 2		115 KV TRANSFORMER STATION (TS)
	ALTERNATIVE ROUTE 1B - 1		230 KV TRANSFORMER STATION (TS)
	ALTERNATIVE ROUTE 1C		HIGHWAY
	LOCAL STUDY AREA		LOCAL ROAD
	REGIONAL STUDY AREA		RAILWAY
			NATURAL GAS PIPELINE
			TRANSMISSION LINE (115 KV)
			TRANSMISSION LINE (230 KV)
			FIRST NATION RESERVE
			WATERBODY
			PROVINCIAL PARK
			MUNICIPAL BOUNDARY

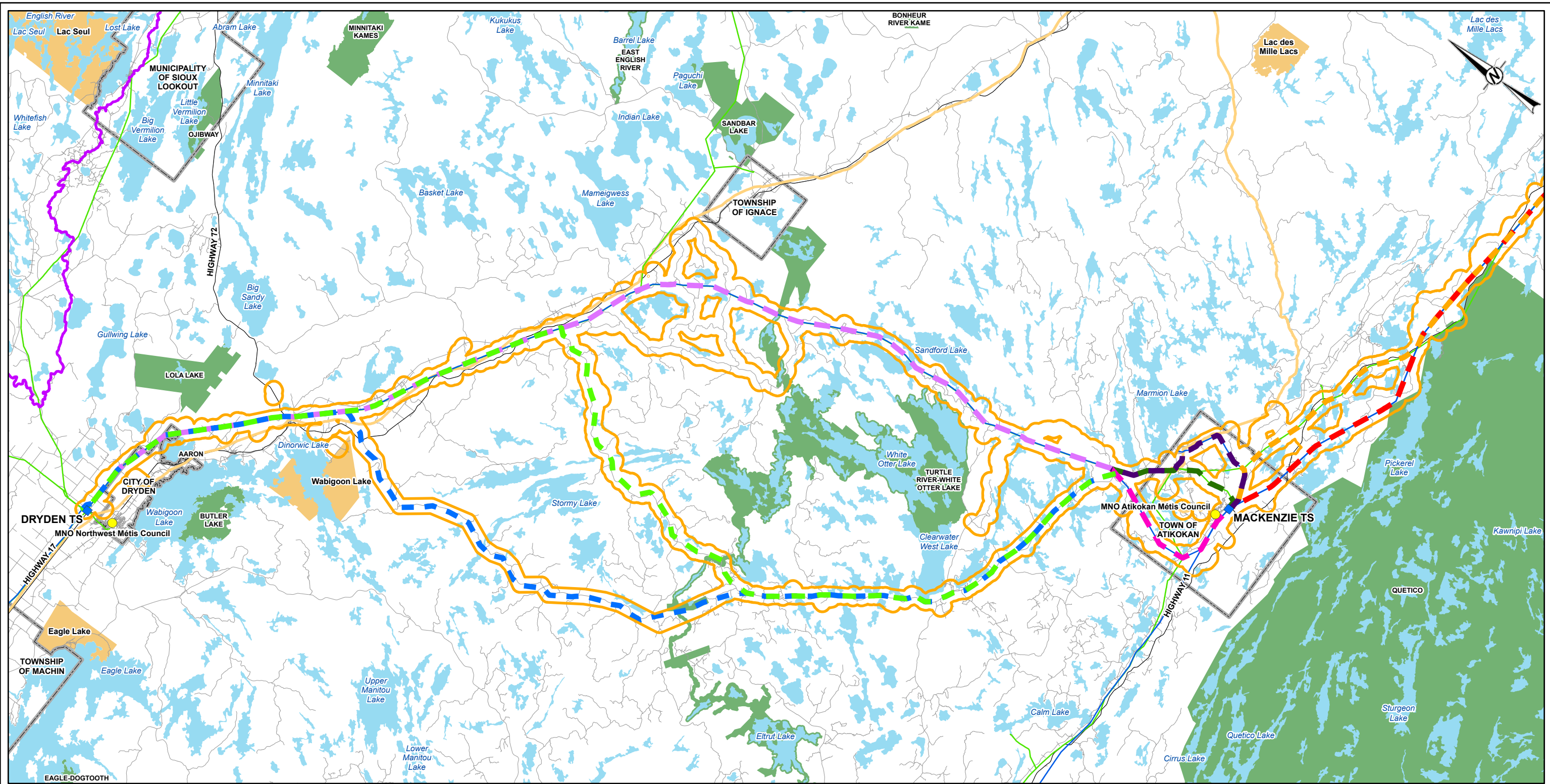


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APPROVED		CS

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2. ROUTE ALTERNATIVES PROVIDED BY HYDRO ONE, AUGUST 2020		
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<b>TITLE</b>		
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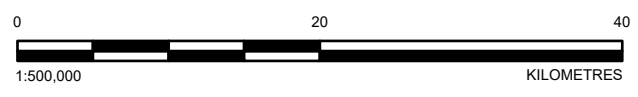
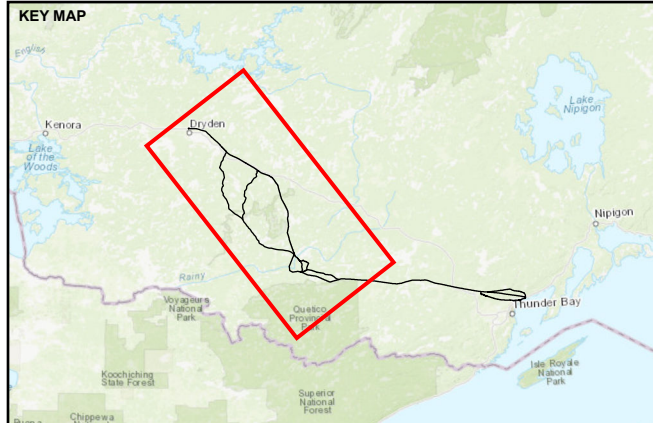
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<span style="color: green;">—</span> ALTERNATIVE ROUTE 2A	<span style="color: grey;">—</span> HIGHWAY
<span style="color: magenta;">—</span> ALTERNATIVE ROUTE 2B	<span style="color: grey;">—</span> LOCAL ROAD
<span style="color: purple;">—</span> ALTERNATIVE ROUTE 2C	<span style="color: grey;">+</span> RAILWAY
<span style="color: pink;">—</span> ALTERNATIVE ROUTE 3A	<span style="color: orange;">—</span> NATURAL GAS PIPELINE
<span style="color: blue;">—</span> ALTERNATIVE ROUTE 3B	<span style="color: green;">—</span> TRANSMISSION LINE (115 KV)
<span style="color: cyan;">—</span> ALTERNATIVE ROUTE 3C	<span style="color: blue;">—</span> TRANSMISSION LINE (230 KV)
<span style="border: 1px solid orange; display: inline-block; width: 10px; height: 10px;"></span> LOCAL STUDY AREA	<span style="background-color: orange; display: inline-block; width: 10px; height: 10px;"></span> FIRST NATION RESERVE
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**REFERENCE(S)**

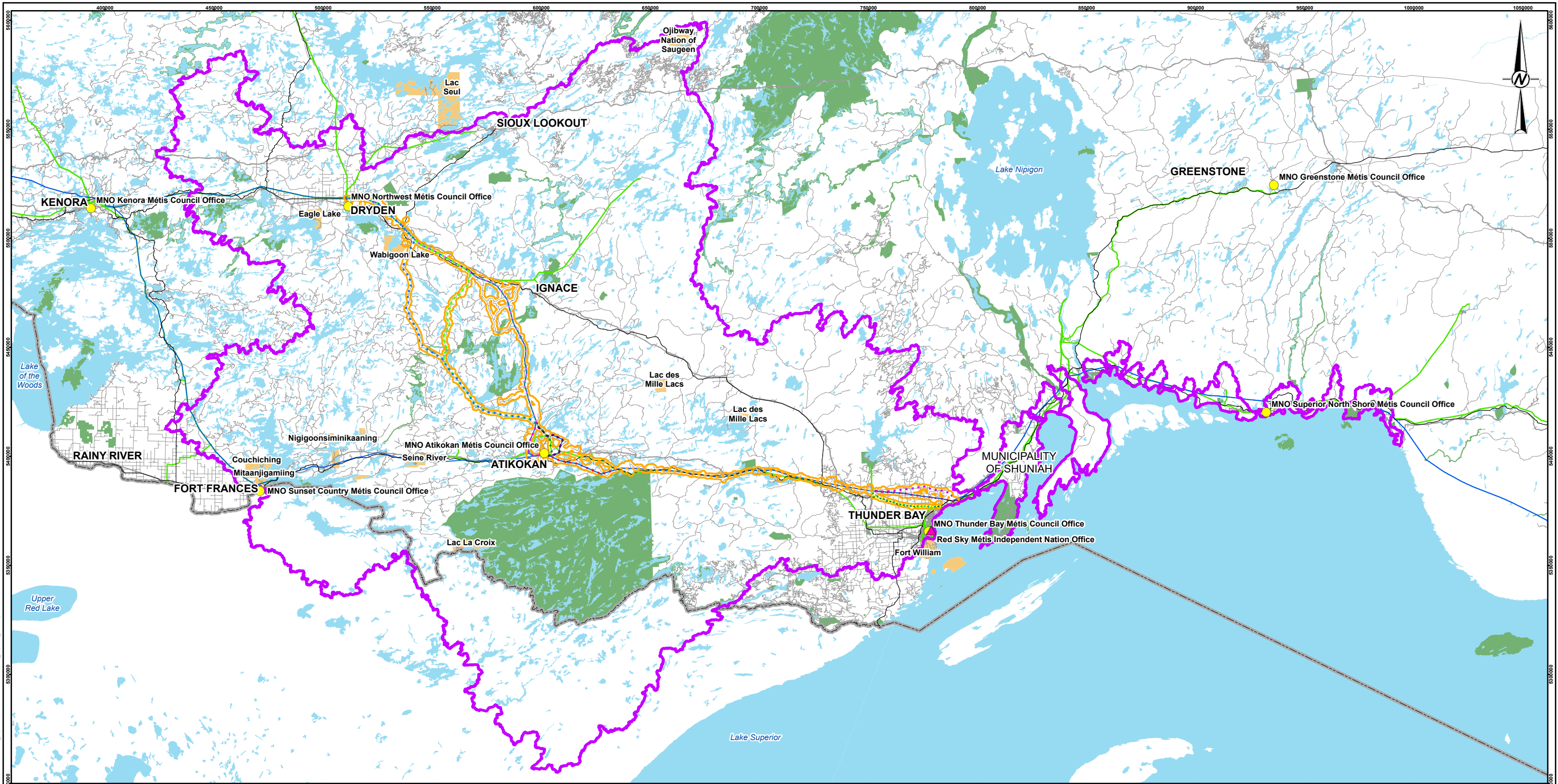
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3. PROJECTION: UTM ZONE 15 DATUM: NAD 83

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	PREPARED	MM
	REVIEWED	CS
	APPROVED	

PROJECT	WAASIGAN TRANSMISSION LINE		
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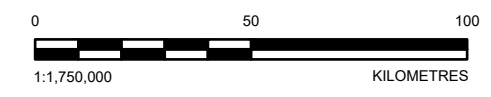
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  - ALTERNATIVE ROUTE 1A
  - ALTERNATIVE ROUTE 1B - 2
  - ALTERNATIVE ROUTE 1B - 1
  - ALTERNATIVE ROUTE 1C
  - ALTERNATIVE ROUTE 2A
  - ALTERNATIVE ROUTE 2B
  - ALTERNATIVE ROUTE 2C
  - ALTERNATIVE ROUTE 3A
  - ALTERNATIVE ROUTE 3B
  - ALTERNATIVE ROUTE 3C
  - LOCAL STUDY AREA - AQUATIC
  - REGIONAL STUDY AREA - AQUATIC
  - MNO COUNCIL OFFICE
  - ▲ RED SKY MÉTIS INDEPENDENT NATION OFFICE
  - TRANSMISSION LINE (115 KV)
  - TRANSMISSION LINE (230 KV)
  - HIGHWAY
  - RAILWAY
  - FIRST NATION RESERVE
  - ▭ INTERNATIONAL BORDER
  - WATERBODY
  - PROVINCIAL PARK

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- REFERENCE(S)**
1. BASE DATA OBTAINED FROM THE MRNF JUNE 2020
  2. ROUTE ALTERNATIVES PROVIDED BY HYDRO ONE, AUGUST 2020
  3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 15N

CLIENT  
HYDRO ONE NETWORKS INC.

PROJECT  
WAASIGAN TRANSMISSION LINE

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## 2.0 Baseline Characterization Schedule

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Desktop analysis to support the alternative route evaluation started in fall 2020 and focused on 150 m alternative route corridors. Additional desktop analysis has been ongoing and will continue for the alternative routes as the preliminary Project footprint designs are prepared (e.g., ROW siting and identification of access roads). Field surveys are expected to be completed between May and September in 2022. Baseline reporting is planned to occur in the fall of 2022 after the field surveys are complete.

IK/TLRU studies are being completed by Indigenous communities for the Project and IK/TLRU information will be used to support the baseline characterization in the EA as it is shared. These studies are expected to become available throughout the preparation of the EA, with varying timelines for different Indigenous communities. Hydro One will work with Indigenous communities to integrate their IK/TLRU information into the EA and into Project decisions, as it is received. Hydro One is also working with interested Indigenous communities to discuss the sharing of information ahead of planned field programs to inform the desktop analysis and alternative route evaluation.



## 3.0 Health, Safety and Environment

Field surveys will be completed with a minimum of two trained environmental specialists (e.g., biologists), and at least one Indigenous field crew member, where possible. Additional details about Indigenous participation in the field surveys are provided in Section 4.1. In addition to a review of Golder's health, safety, security and environmental policies and procedures, training of Indigenous field crew members will include Health and Safety Basics, Hazard Identification, Evaluation and Control and Bear Awareness.

Hydro One and Golder understand the importance of preventing the spread of COVID-19 in northwestern Ontario and within Indigenous communities. Golder has prepared a list with general mitigation that will be implemented for the field programs which will be shared with all field crews. This mitigation will be applied for the duration that provincial health protocols deem it necessary to do so. The following mitigation will be implemented, as applicable, specific to limiting the potential spread of COVID-19:

- Field surveys will be staffed by field crews from Golder's Thunder Bay office, where possible. If field crews are required outside of the Thunder Bay region, they will self-monitor daily and follow the protocols of the Thunder Bay District and Northwestern Health Units.
- Field crews will not enter First Nation reserves during 2022 field work until it is deemed safe to do so based on permission from the applicable First Nation and in accordance with federal and provincial health guidelines.
- For field crew members from Indigenous communities, Hydro One and Golder will work with the community to determine if additional mitigation is required prior to the field surveys and for the field crew to return to their community (e.g., isolation period).
- Prior to the field crew meeting at the start of each day, each field crew will confirm to the crew lead that neither they, nor those they live with or have been in close contact with, have developed symptoms of COVID-19 (e.g., temperature, cough, sneezing, fever, sore throat, difficulty breathing). If a field crew has developed these symptoms during the course of the program, the Project Manager will be notified immediately, will then notify Hydro One, and the survey will be postponed until it is deemed safe for the field crew member(s) to return to work or until one or more alternate field crew is available.
- Field crews will wash and/or disinfect their hands with hand sanitizer immediately after using public facilities (e.g., washrooms, garbage cans with lids, and surfaces at gas stations), prior to and following equipment use, and frequently over the course of each field day (i.e., after completion of each site, before and after taking breaks (i.e., lunch), and at the start and end of each shift).
- As part of the field/decontamination kit and procedures, crews will maintain an adequate supply of clean water, liquid soap, sanitizer gel, and sanitizing wipes (or equivalent, i.e., paper towel and disinfectant spray) for the full duration of the journey and field work period. Field crews will routinely (e.g., start/end of day, and during the day) clean frequently touched surfaces in the field, such as shared field equipment, countertops, doorknobs, and



vehicle components. Used materials will be disposed of in garbage bags and waste will be disposed of daily.





## 4.0 Engagement

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Section 4.2 of the Project's Amended ToR (Hydro One 2021) identifies the need for field surveys to be undertaken to support the EA. This includes an aerial reconnaissance of the alternative routes completed in 2020, the surveys planned to collect baseline data in support of the alternative routes evaluation, and the net effects assessment of the preferred route. The Amended ToR also identifies that field work plans will be prepared in consultation with applicable agencies and through engagement with Indigenous communities. Accordingly, this work plan will be finalized following an opportunity for review and comment by agencies with a mandate to consider the baseline data proposed to be collected including the MECP and NDMNRF, as well as the Indigenous communities being engaged for the Project, as identified in Section 10.4.1 of the Amended ToR.

A summary of the findings of the 2022 surveys will be included in the documentation of the EA. As well, these findings will be shared through Community Open House events and community meetings planned to support the EA, as identified in Section 10.0 of the Amended ToR.

### 4.1 Indigenous Participation

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Hydro One believes that the Project will benefit greatly with the active engagement of Indigenous communities since they hold IK/TLRU information for the area. Section 4.2.3.6 of the Amended ToR provides a detailed description on how Indigenous knowledge will be obtained and incorporated into the Project.

Incorporation of Indigenous participation and other considerations in the field work will include the following:

- Indigenous field crews will be included as valued core team members for field surveys;
- Indigenous field crews will be provided with training and technology to assist with data and field collections;
- Cooperation will be given to independent Indigenous field monitors, including sharing field study schedules in a timely manner;
- Data collection will include an opportunistic shoreline survey with key questions to capture information regarding fish and fish habitats from local fishers and Indigenous communities regarding Indigenous Knowledge, value of the fishery, key fish and other aquatic species, and issues relating to water and fish from existing transmission lines in the area;
- Inclusion of Indigenous names of species (i.e., for plants, wildlife, and fish) and waterbodies in the EA;
- Real-time mapping, as practicable; and



- Non-Indigenous field crews will have completed Indigenous cultural awareness training. Indigenous knowledge related to wildlife, vegetation, fish and fish habitat and surface water resources will be highlighted and incorporated in the baseline studies and effects assessments, where it is shared by Indigenous communities for inclusion. Indigenous Knowledge may be shared through a variety of sources, including from Indigenous field crew members, IK/TLRU studies completed by Indigenous communities and/or through engagement with Indigenous communities.





## 5.0 Baseline Fish and Fish Habitat Characterization Studies

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### 5.1 Purpose

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The objective of the fish and fish habitat field survey for the Project is to characterize the existing fish habitat and fish communities, including Species at Risk (SAR) and Species of Conservation Concern (SOCC) fish, within the preliminary Project footprint of each alternative route and the immediate downstream environment to support the EA for the Project. Data collected in the field will be combined with existing available information from a desktop analysis, aerial imagery interpretation, and results from an aerial reconnaissance completed in October 2020. The collated data will be documented in the fish and fish habitat section of the EA to facilitate assessment of Project-related effects on fish and fish habitat using the approved criteria and indicators. The data will also be used to support future permitting requirements, where applicable.

### 5.2 Desktop Analysis and Field Planning

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Existing literature and digital data provided by Hydro One, available in-house at Golder (including NDMNRF Land Information Ontario and Natural Heritage Information Centre [NHIC] data), and obtained through published reports and grey literature, as well as IK/TLRU studies received from Indigenous communities and the results of the 2020 aerial reconnaissance, will be reviewed and compiled to support the fish and fish habitat baseline characterization. Much of this data compilation and review is currently being completed to support the alternative route evaluation process, including the preparation of a detailed waterbody crossing list and survey site selection. In addition, a list of fish species documented in each tertiary watershed crossed by the alternative routes will be collated.

A detailed waterbody crossing list will be created to identify waterbodies within the preliminary Project footprint of each alternative route. A unique identifier will be assigned to each waterbody to correlate with fish and fish habitat and surface water data to allow for data tracking and a site-specific assessment. The data collected during the desktop analysis will be collated for each waterbody in the waterbody crossing list.

The desktop analysis includes screening to identify the fish species, including fish of Indigenous significance (e.g., fish for subsistence) and SAR and SOCC fish, potentially present in the preliminary Project footprint of each alternative route and the immediate downstream environment.

For the purposes of this field work plan, aquatic<sup>1</sup> SAR are defined as the following:

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<sup>1</sup> Aquatic species include freshwater fish and mussels.



- Any fish species listed under Schedule 1 of the *Species at Risk Act*, S.C. 2002, c. 29 (SARA) as Threatened, Endangered, or Extirpated; and/or
- Any aquatic species listed under the Endangered Species Act, 2007, S.O. 2007, c. 6 (ESA) as Threatened, Endangered, or Extirpated.

For the purposes of this work plan, aquatic SOCC are defined as:

- Any aquatic species listed under Schedule 1 of SARA as Special Concern;
- Any aquatic species designated Threatened, Endangered, or Extirpated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (unless otherwise listed as SAR under SARA or the ESA);
- Any aquatic species listed under the ESA as Special Concern (unless otherwise listed as SAR under SARA);
- Any aquatic species with a subnational rank (SRank) of S1 – S3 or SH as designated by the NHIC; and/or
- Any species that have local significance (i.e., Coaster Brook Trout [*Salvelinus fontinalis*]).

A SAR screening will also be completed as part of the desktop analysis to identify SAR with moderate to high potential to occur in the LSA based on range overlap, documented occurrences, critical habitat mapping and presence of suitable habitat determined from aerial imagery and mapping (e.g., DFO Aquatic Species at Risk mapping).

As a conservative measure, all waterbodies within the preliminary Project footprint are assumed to provide fish habitat, regardless of occurrence records available. The waterbodies with potential SAR and/or SOCC fish (e.g., overlapping range maps, occurrence records within the waterbody or within 1 km of a connecting waterbody, etc.) will be assumed to have potential SAR habitat, including rearing, spawning, migration, and overwintering habitat.

The desktop analysis will support the selection of sampling sites (see below) and facilitate logistical arrangements. The goals of the desktop analysis for field planning for the fish and fish habitat survey are to:

- Select the survey sites;
- Plan and organize field logistics; and
- Prepare field maps.

### 5.2.1 Site Selection

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The field survey will target a subset of waterbodies that are crossed by the preliminary Project footprint for each alternative route (rather than the full list of crossing locations). Waterbodies that are adjacent to the preliminary Project footprint for each alternative route, but not crossed by them, will not be surveyed as temporary workspaces included in the Project design will incorporate a 30 m setback between the preferred route and any adjacent waterbodies where feasible, and these waterbodies will not be directly impacted. Mitigation measures will still be identified for sites beyond 30 m that have the potential to be indirectly affected. A subset of



waterbody crossings will be selected based on the NDMNRF/DFO Protocol for the Review and Approval of Forestry Water Crossings (MNR 2017b) and coupled with the scaled approach. For example, field results at a particular crossing location will be extrapolated to other waterbody crossing locations in the same watershed category.

The watercourse crossing desktop information is undergoing a revised screening prior to the field program and values will be available by approximately mid-June. Of the 1,605 waterbody crossings, background fish and/or fish habitat data are available for approximately 25% (i.e., approximately 401) of the waterbody crossings along the alternative routes. Therefore, approximately 75% of waterbody crossings (i.e., approximately 1,204) have no known historical fish or fish habitat information. These waterbodies are the current focus of the site selection process and will be selected using the process outlined below. The results of that calculation will be the focus of the field surveys. The field survey will be used to obtain site-specific field data at a subset of waterbody crossings to verify or augment the results and assumptions from the desktop analysis, with the following understanding:

- 1) The field surveys will target approximately 25% of the total number of mapped and unmapped waterbody (as identified by Golder using several available resources including publicly available GIS data) crossings along the preliminary Project footprint of each alternative route, which includes both the transmission line corridor and access roads (i.e., approximately 401)<sup>2</sup>. The site selection process for the subset of waterbody crossings will rely primarily on the guidance and procedures under the *Crown Forest Sustainability Act, 1994*, S.O. 1995, c. 25 (CFSA). Based on past experience from other large-scale transmission line projects in northwestern Ontario, the use of these NDMNRF- and DFO-sponsored protocols considers the following:

Regulators have identified the CFSA protocols as an acceptable approach for the permitting and approval of waterbody crossing locations.

Waterbody crossings of medium to larger watershed sizes are generally targeted for field surveys under CFSA and will account for roughly 20% to 25% of the total number of waterbody crossing locations for the Project, recognizing that:

Publicly available data can be readily obtained for a number of the larger streams and rivers crossed by the Project route, and, as such, will be relied on to the extent possible at these crossing locations to either supplement the information that is secured from the ground-based field surveys or to avoid a site visit altogether (i.e., the desktop analysis information alone will be used to cover off the CFSA requirements).

Secondary to this, site selection will also consider a scaled approach, with a plan to select a representative number of waterbody crossings under three different categories of watershed size: small (areas of 1 square kilometre [km<sup>2</sup>] to 50 km<sup>2</sup>), medium (areas of 50 to 500 km<sup>2</sup>), and large (areas greater than 500 km<sup>2</sup>) will be applied. The scaled approach to the site selection process will offer the

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<sup>2</sup> Note that the total number of sites selected will be determined at a future date once access road design is completed.



opportunity to extrapolate the field data from a particular watershed category to other waterbody crossing locations in the same category for the purposes of assessing Project-related effects on surface water conditions and fish and fish habitat, as well as to identify appropriate mitigation and design techniques. It is expected that waterbody crossings with larger watershed sizes will already be well-represented through the site selection process from CFSA, meaning that the scaled approach will be used for the most part to capture a sufficient number of waterbody crossings with small- to medium-sized catchments.

The subset chosen will aim to avoid selecting sites where existing fisheries values are previously documented confirming suitable habitats.

- 2) An aerial reconnaissance was completed in October 2020 at the proposed crossing locations along the 150 m alternative route corridors. Based on recent experience for another linear development project in northern Ontario, an aerial reconnaissance is considered a viable assessment method for fish habitat and fish habitat potential by DFO.
- 3) The exact number and location of waterbody crossing locations to be visited during the field surveys are currently being assessed and will be confirmed prior to the start date of the field survey.

The site selection process for the subset of waterbody crossings will be based primarily on a scaled approach, with a plan to select a representative number of waterbody crossings considering that the following will be determined prior to selecting the survey sites:

- Location of temporary and permanent access roads;
- Criteria for determining crossing types (e.g., clear span, culvert, fording, ice bridges); and
- Criteria for riparian vegetation removal (e.g., height of trees, width of riparian buffer).

The subset of selected waterbody crossing locations will include those that: (1) have potential for a higher level of disturbance during construction and merit a detailed assessment of site-specific effects and mitigation to support the EA, and (2) would trigger the requirement for ground-based field surveys to advance permitting and regulatory approvals (i.e., NDMNRF, MECP, and/or DFO) of the proposed waterbody crossing. Therefore, survey sites will be selected at waterbodies where:

- Temporary (e.g., one time ford, temporary culvert) or permanent (e.g., installing a permanent culvert) works would be proposed below the high watermark;
- Permanent crossing structures would be proposed to be installed above the high watermark; and
- Removal of critical riparian vegetation would be proposed.

If approximately 25% of the sites on the waterbody crossing list meet the above criteria, all of these sites will be surveyed. However, if more than 25% of the sites meet the above criteria, a subset will be chosen based on:



- Watershed size (waterbodies will be sampled in three different watershed size categories: small [areas of 1 to 50 km<sup>2</sup>], medium [areas of 50 to 500 km<sup>2</sup>], and large [areas greater than 500 km<sup>2</sup>]);
- Mapped and unmapped waterbody crossing locations with limited existing information;
- Data gaps and sensitive fisheries values (i.e., potential for aquatic SAR or SOCC based on proximity to other waterbodies with documented occurrence);
- Waterbodies that are suspected to be poorly defined or absent; and
- Accessibility to the waterbody crossing.

The subset chosen will aim to avoid selecting sites based on:

- Locations where existing fisheries values are previously documented confirming suitable habitats.

Waterbodies with documented aquatic SAR and/or SOCC presence will not be surveyed due to previous experience indicating agencies will not approve sampling where previous data indicate SAR or SOCC presence. The selected waterbody crossing locations for the ground-based field surveys will be evenly distributed throughout the alternative routes and among the relevant tertiary watersheds to the extent possible and practical. In addition, the aim will be that the number of waterbody crossings selected for field surveys within each watershed category (i.e., small, medium, large) will be proportional to the total number and representative size of waterbody crossings across the full extent of the preliminary Project footprint for each alternative route. For example, if 50% of the waterbody crossings along the preliminary Project footprints are classified as small waterbody crossings (i.e., waterbodies crossed by the Project that include watershed areas between 1 and 50 km<sup>2</sup>), then roughly half of the ground-based field survey sites will be targeted at waterbody crossings that fall within the small watershed category.

The scaled approach to the site selection process will offer the opportunity to extrapolate the field data from a particular watershed category to other waterbody crossing locations in the same category. In addition, the field data from sites previously surveyed during the 2020 aerial reconnaissance program (Golder 2021b) will be used in conjunction with desktop analysis data to categorize the remaining waterbodies for the Project, where ground-based field surveys are not occurring.

The ground-based field surveys at each of the selected waterbody crossing locations will include an assessment of fish habitat, fish community, and surface water conditions. These studies are detailed below.

Additional survey sites will be selected as contingency sites in the event that some sites cannot be accessed.

Site selection also entailed creating a site identification protocol. Approaching the nomenclature in the manner described below is intended to provide a general understanding of the geographical location of each site without the need to continually consult mapping. Each



proposed waterbody crossed by a transmission line alternative or access road has been given a unique identifier. The identifier is made up of a two-letter code to identify a waterbody crossing (WC), followed by a dash and a unique number (e.g., WC-1090.00), this number signifies not only the numerical sequence and geographic location (i.e., generally from east to west) along the line, but also the alignment on which the site is located. Sites ending in “.00” represent sites on mapped waterbodies (i.e., available on the Ontario Hydrology Network data layers), whereas sites ending in “0.1, 0.2, 0.3...” represent sites on unmapped waterbodies determined through aerial imagery. Additional waterbody crossings identified in the field will have a third digit added to the decimal (i.e., 0.11, 0.12, 0.13...). This will be sequentially numbered following the location of a mapped or aerial imagery identified location.

The following provides a basic starting point for how site numbers were or will be assigned on each alternative route alignment or access roads:

- Transmission Line Crossings Lakehead TS to Mackenzie TS: WC-1000 to 1999;
- Transmission Line Crossings Mackenzie TS to Dryden TS: WC-2000 to 2999; and
- Access Road Crossings: WC-3000 to 3999.

Examples of waterbody codes are as follows:

- WC-1000.00 = site on mapped waterbody
- WC-1000.01 = site on unmapped waterbody identified from aerial imagery
- WC-1000.011 = site on unmapped waterbody identified during the field program

At the time this Field Work Plan was developed, the preliminary results of the site selection process indicate that approximately 401 watercourses/waterbodies will be sampled. That number will likely change before it is finalized, as well as following field investigations, but is provided as an approximation to understand the magnitude of sampling proposed.

## 5.2.2 Access and Field Maps

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Data gathered during the 2020 aerial reconnaissance and aerial imagery will be reviewed to determine the preferred mode of access for the ground-based field surveys. Survey sites are expected to be physically accessible by truck, foot, all-terrain vehicle (using rails or similar equipment as appropriate, as temporary bridges to span waterbodies where necessary), and/or helicopter; though land-owner permission to access the survey locations will need to be obtained on a case-by-case basis.

The location of waterbody crossing locations to be surveyed will be provided in a water crossing list and a map book of the waterbodies on the crossing list will be created once the full preliminary Project footprint is available (i.e., after the access roads and supporting infrastructure is designed). Additional field sites will be selected as contingency sites if some sites cannot be accessed.





## 5.3 Field Surveys

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The field surveys will be completed by experienced field crews consisting of a Golder fisheries biologist/technician and surface water technician, and Indigenous field crew member(s). The surface water parameters outlined to be sampled in Section 6.0 will be sampled along with the fish and fish habitat parameters as outlined below. At each site, the field survey will be completed in approximately two to six hours depending on site conditions and number of fish captured.

### 5.3.1 Fish Habitat Assessment

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The length of the section surveyed will depend on the size of the waterbody. The field crew will endeavour to survey 200 m of each waterbody, including 50 m upstream from the crossing and 150 m downstream from the crossing on watercourses and 200 m along the shoreline of lakes/ponds. If 200 m cannot be surveyed due to site logistics (e.g., dense forest, land access issues), the field crew will endeavor to survey as much of the site as is safely accessible, up to 200 m. For large waterbodies, field data collection will consist of a habitat assessment from shore. If a helicopter is used to access the site, a low-level helicopter fly-over will be used to determine substrate and available cover for fish.

At each waterbody selected for the survey, a detailed habitat assessment will be completed. The channel will be classified by the following habitat morphology types (modified from O'Neil and Hildebrand 1986):

- **Riffle** – Portion of channel with increased velocity relative to run and pool habitat types; broken water surface due to effects of submerged or exposed bed materials; relatively shallow (less than 0.25 m) during moderate to low flow periods.
- **Rapids** – Portion of channel with highest velocity relative to other habitat types. Deeper than riffle (ranging from approximately 0.25 m to 0.5 m); often formed by channel constriction. Substrate extremely coarse; dominated by large cobble and boulder material. Instream cover provided in pocket eddies and associated with cobble/boulder substrate.
- **Run** – Portion of channel characterized by moderate to high current velocity relative to pool and flat habitat; water surface largely unbroken. Deeper than riffle habitat type.
- **Flat** – Area of channel characterized by low current velocities (relative to riffle and run cover types); near-laminar (i.e., non-turbulent) flow character. Depositional area featuring predominantly sand/silt substrate. Differentiated from pool habitat type on basis of high channel uniformity and lack of direct riffle/run association. More depositional in nature than run habitat (e.g., sand/silt substrate, lower food production, low cover).
- **Pool** – Discrete portion of channel featuring increased depth and reduced velocity (downstream oriented) relative to riffle and run habitat types; formed by channel scour (i.e., removal of bed or bank material by flowing water).
- **Impoundment** – Pools formed behind dams; tend to accumulate sediment/organic debris more than scour pools; may have cover associated with damming structure.



- **Backwater** – Discrete, localized area of variable size, exhibiting reverse flow direction; generally produced by bank irregularities; velocities variable but generally lower than the main flow; substrate similar to adjacent channel, but with higher proportion of fines.

Within each habitat morphology type, the following parameters will be measured or visually assessed:

- Bank-full width, wetted width, and channel length will be measured to the nearest 1 m. Maximum depth will be measured in watercourses to the nearest 0.10 m and in lakes and ponds, the mean depth (m) will be estimated from the shoreline.
- Substrate composition will be visually estimated as a percentage of total area within each habitat unit. Substrate classifications will use the Modified Wentworth Scale (Wentworth 1922):
  - Organic – organic material.
  - Silt – particles less than 0.06 millimetres (mm) in diameter.
  - Sand – particles between 0.06 mm and 2.00 mm in diameter.
  - Gravel – particles between 2 mm and 64 mm in diameter; range of sizes may be present.
  - Cobble – particles between 64 mm and 256 mm in diameter.
  - Boulder – particles greater than 256 mm in diameter.
  - Bedrock – consolidated rock.
- Availability of instream cover will be visually assessed as overhanging vegetation (i.e., riparian vegetation), substrate, depth/turbulence, aquatic vegetation, undercut banks, and woody debris as a percentage of total area within each habitat unit.
- Bank shape will be visually assessed as sloping, vertical, or undercut.
- Bank stability will be visually assessed as protected (i.e., stable), vulnerable (i.e., potentially unstable), eroding (i.e., active erosion of bank), or depositional (i.e., active deposits on the bank).

In addition, the following variables will be documented at the proposed crossing:

- Location in Universal Transverse Mercator (UTM) coordinates, North American Datum (NAD) 83 will be collected.
- Flow regime, based on a visual assessment:
  - **Ephemeral** – flows only during and after large precipitation events for a period of a few days to a few weeks.
  - **Intermittent** – flows during wet seasons and in the summer after a major rain event, a non-permanent flowing drainage feature with a defined channel and evidence of annual scour or deposition.
  - **Permanent** – flows for most of the year (i.e., 8 months of the year or longer) but can run dry during drought conditions.





- Waterbody type, based on a visual assessment:
  - **Watercourse** – a flowing body of water within a defined channel (includes rivers, creeks, streams).
  - **Lake/pond** – waterbody that is surrounded by land and has no discernible flow. Lakes will be categorized as waterbodies >8 ha and ponds as those <8 ha.
  - **No channel** – a potential waterbody (based on desktop or aerial surveys) that was determined to have no defined bed and/or banks during the field survey.
- Basic in-situ water quality parameters (conductivity, pH, temperature, and dissolved oxygen) will be measured using a multi-parameter water quality meter. A visual estimate of water clarity will also be completed.

The following variables will be measured or visually assessed within the entire survey reach:

- Presence of potential fish passage impediments and barriers will be visually assessed. The type, height, and potential permanency of the barrier will be documented. It is acknowledged that the presence of a barrier does not preclude fish presence upstream of the barrier. Barriers will be considered permanent if it appears that they are likely to have been present for more than 20 years (e.g., a human constructed dam) and not permanent if it appears that they are unlikely to have been present for more than 20 years or can be naturally altered (e.g., a beaver dam).
- Type of riparian vegetation present, average height, and if any critical riparian vegetation cover is present will be visually assessed.
- Evidence of sensitive features present (e.g., watercress, groundwater seepage/springs, or iron staining).
- Description of pollution point sources and/or existing infrastructure present.
- Supporting and environmental information (e.g., weather conditions, such as air temperature, wind direction, precipitation type, and percent cloud cover) and access notes.
- Photographs will be taken at each waterbody including upstream, downstream, of the left and right upstream banks and substrates, at the proposed crossing location. Representative photos of habitat types will also be taken along the survey reach.

Based on the habitat features described above, the fish habitat potential in each waterbody for each critical life history stage (i.e., spawning, rearing, foraging, overwintering) for each species group that may be present (e.g., small-bodied fish, large-bodied fish, SAR, SOCC) will be rated as follows:

- **Nil** – The waterbody has no habitat available and will not support fish because a defined channel is not present.
- **Low** – The waterbody has low-quality habitat available, which may include an ephemeral to semi-permanent flow regime, poorly defined banks, limited abundance of habitat and substrate types to provide life history functions for fish (e.g., only pool habitat with silt substrate), partial barriers to fish movement (e.g., beaver dams, log jams), and minimal instream cover.



- **Moderate** – The waterbody has moderate-quality habitat available, which may include an ephemeral to semi-permanent flow regime, some habitat and substrate type variety (e.g., more than two types available), absence of barriers to fish movement in the vicinity of the crossing, and multiple sources of instream cover.
- **High** – The waterbody has high-quality habitat available, which may include a permanent flow regime, a variety of habitat and substrate types to meet life history requirements for fish (including spawning habitat), presence of sensitive features (e.g., watercress, groundwater seepage/springs, or iron staining), absence of barriers, and variety of instream cover. Waterbodies with ephemeral and semi-permanent flow regimes may be rated as having high rearing potential for young-of-year fish as these waterbodies are known to provide nursery habitat, particularly for young-of-year brook trout.

The fish habitat potential rating scheme is conservative, and if there is any potential for SAR and/or SOCC fish to be present in a waterbody, the habitat potential ratings will document that potential, even if it is low quality habitat.

Small-bodied fish, also called forage fish or baitfish, are generally small fish (total lengths generally less than 200 mm) that may serve as food for larger predators. Forage fish species would include families such as Leuciscidae (formerly Cyprinidae) (e.g., Lake Chub [*Couesius plumbeus*]) and Cottidae (e.g., Slimy Sculpin [*Cottus cognatus*]) as well as several others. Large-bodied fish (including predator fish species), which generally have fork lengths (length of a fish measured from the tip of the snout to the end of the middle caudal fin rays) greater than 200 mm when they are adults, and would include species from such families as Acipenseridae (e.g., Lake Sturgeon [*Acipenser fulvescens*]), Salmonidae (e.g., Brook Trout [*Salvelinus fontinalis*]), and Catostomidae (e.g., White Sucker [*Catostomus commersonii*]).

The field crew will use a variety of gear including, but not limited to, measuring tapes/sticks, wading rods, flow meters and YSI or AquaTroll water quality meters, GPS, and cameras. Data will be recorded on electronic (e.g., collector or survey 123 platforms) or paper datasheets.

IK or TLRU related to aquatic habitat (as available from Indigenous crew members) will be recorded on a site-specific basis, if permission is provided by the Indigenous field crew member, to be incorporated into the EA.

### 5.3.2 Fish Community Sampling

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The fish community sampling will require a Licence to Collect Fish for Scientific Purposes (LCFSP) issued by NDMNRF. The permit applications will be submitted through the one-window EA contact, who will provide the applications to each of the Thunder Bay, Fort Frances, and Dryden NDMNRF district offices as soon as feasible and at a minimum, approximately four weeks prior to the start of the field survey (i.e., anticipate submitting the applications starting late May 2022 with the submission of the application for the Dryden District, followed by Thunder Bay and then Fort Frances).

All fish sampling will be completed per the licence conditions.



Visual inspection of the sampling area will be completed prior to sampling to observe if any spawning activities are occurring or if eggs/larva are present in a redd (i.e., spawning nest). If spawning activities or redds are observed, fish sampling will not be completed, and the field crew will avoid stepping in the water. Freshwater mussel presence, to the extent possible, will also be documented during the visual inspection and while conducting fish community assessments.

Fish community sampling will be completed using a variety of capture techniques as determined by the individual site conditions. The fish sampling gear will include, but not be limited to, a backpack electrofisher (e.g., Smith Root LR-24 or equivalent), dip nets, seine nets, hoop nets, and minnow traps. Holding pens/tubs, aerators, length boards, weight scales (0.1 grams [g] and 0.1 g), and a camera will be used for processing fish.

Electrofishing will be the preferential fishing method and will be completed by qualified staff. Electrofishing has proven sampling efficiencies with limited incidents of fish mortality and injury (Portt et al. 2006) compared to other sampling methods. The use of electrofishing equipment is limited to wadable areas based on flow, substrate, and water depth. A field-level assessment of site conditions will be completed to determine the safety and efficacy of electrofishing-based sampling. Where site conditions support electrofishing, the electrofisher operator will wade upstream along the banks and sample in the immediate vicinity of suspected fish holding sites (e.g., overhanging branches, undercut banks, submerged logs, or boulders). The netter, who will be positioned immediately downstream, will collect temporarily immobilized fish and place them in a hand-held container filled with water. Electrofishing will be completed within the survey section (i.e., approximately 50 m upstream from the crossing and 150 m downstream from the crossing). The length of channel sampled will depend on the distribution of available habitat, and if they are captured, the type of fish. Electrofishing settings will be determined by the site conditions, but standard electrofishing settings will likely be used (e.g., 125 to 600 volts (V) or direct current and frequency of 25 to 100 Hertz).

Other fishing methods may be employed to complement electrofishing efforts or as designated in habitats where electrofishing may not be suitable (Portt et al. 2006). Seine nets, approximately 30 m long with 0.01 m mesh, will be used at beach or shoreline areas where two field staff can wade (i.e., less than 1 m water depth) and walk in a U-shaped pattern to encircle fish. Use of seine nets will be limited depending on current velocity and water depth. Hoop nets, approximately 1 m opening with 0.01 m mesh, will be set in a waterbody where the tunnels can be submerged, the channel bottom is flat and free from large obstructions (i.e., large coarse substrate/boulders, dense vegetation, or woody debris) with the opening facing downstream and the trap end at the upstream extent.

Minnow traps (Gee type) can be widely used in all waterbody types, to target small-bodied fish species. Minnow traps, approximately 0.41 m long with 0.22 m openings and 0.005 m mesh, will be submerged in water with the trap entrances below the waterline. Minnow traps will be baited with dried cat food to increase the potential of catch success. Minnow traps will generally be set between one to five hours and/or overnight, if possible.



Fishing activities will immediately cease if any sensitive fish (e.g., spawning large-bodied fish, Brook Trout), SAR and/or SOCC fish are captured. Any sensitive fish, SAR, or SOCC fish captured or observed during the field survey will be photographed (i.e., appropriate photos will be taken based on DFO guidance [Portt et al. 2008]) and a georeferenced coordinate will be collected at the capture location. The fish will be immediately released and fishing efforts in the area ceased. If SAR fish are captured, the Fish Lead for the Project will inform the DFO, MECP and MNRF and provide the location, photographs, and sampling method to DFO, MECP and NDMNRF, per the licence directions. All SAR and/or SOCC fish data will be submitted to NHIC. Capture of an invasive species not previously recorded in the watercourse/waterbody will be immediately reported to NDMNRF, and DFO, and the invasive species will be handled according to the LCFSP conditions, which may include euthanization and disposal.

The captured and observed fish will be enumerated and identified to species, where feasible. The first ten fish of each fish species captured will be weighed and measured. Captured forage and small-bodied fish species will be weighed to the nearest 0.1 g and large-bodied fish will be weighed to the nearest gram. Captured fish will be measured by fork length or total length (species dependent) to the nearest millimetre. Approximate lengths of observed fish will be estimated, where possible. The fish will be released immediately downstream of their capture locations, outside the active fishing area.

Data will be recorded on electronic (e.g., collector or survey 123 platforms) or paper datasheets and will include sampling location, methods, date, start/end times, quantity of the area sampled, effort, electrofishing settings, net sizes, number of runs or traps set, number and species of fish captured and observed, and fish weights and lengths, as appropriate.

No species-specific sampling will be completed for freshwater mussels. If observed at the time of the field survey, georeferenced photographs will be collected and details regarding the habitat will be documented, as detailed in Section 5.3.1.

IK or TLRU related to fish communities (as available from Indigenous crew members) will be recorded on a site-specific basis, if permission is provided by the Indigenous field crew member, to be incorporated into the EA.

### **5.3.3 Disinfecting Procedure**

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Field gear (e.g., waders, electrofisher, and water quality meters) will be disinfected using a bleach solution to eliminate the spread of invasive species, viral hemorrhagic septicemia, and whirling disease, prior to the field survey and then between each site. Field gear will be disinfected according to the LCFSP conditions.

## **5.4 Quality Assurance and Quality Control**

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Fish and fish habitat data collected during the baseline field survey will undergo a Quality Assurance/Quality Control (QA/QC) process for consistency and accuracy. The specific tasks for field data QA/QC include:



- Field data will be ideally collected on digital data forms via tablet. Hardcopies of the datasheets will also be carried in the field as a contingency measure in the event of tablet failure, breakage, loss, or poor weather (i.e., rain).
- Field equipment (e.g., electronic scales and water quality meters) will be calibrated according to manufacturer's recommendations.
- Prior to leaving each survey site, the fisheries biologist/technician will QA/QC each datasheet collected for completeness. At the end of each field day, the fisheries biologist/technician will QA/QC the datasheets for the day to confirm completeness and accuracy. The digital datasheets will be uploaded to the Golder server daily. The GPS files and photos will be downloaded onto a laptop and uploaded to the Golder server, where suitable internet access is available.
- Data will subsequently be reviewed by an office-based Golder employee to identify any errors or omissions that may have been missed by the field staff. The data will also be reviewed by a Golder senior fisheries biologist.
- Equipment will be checked daily to confirm it is operating within the allowable range and that the calibration records are up to date.

QA/QC for the waterbody crossing list will involve the following:

- Review by more than one person, including a senior fish biologist to verify accuracy; and
- Review by a fish biologist and a water resources engineer to verify that the waterbodies are included and to QA/QC the data.

## 5.5 Schedule

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The following describes the proposed field program schedule based on the current Project schedule.

- **Desktop Analysis** – January to approximately May or June 2022 (note, some of the desktop analysis will be completed for the preliminary Project footprint after the alternative route evaluation is complete and the access road alignment is determined).
- **Site Selection and Submission of LCFSP Applications** – LCSFP applications submitted prior to June 2022 for all potential sites. A revised list of sites selected will be provided after preparation of the Project description with respect to the location of temporary and permanent access roads, criteria for determining crossing types, and criteria for riparian vegetation removal. The revised list of sites selected, according to the methods outlined in Section 5.2.1, will be provided to agencies approximately 10 days prior to the start of the field surveys.
- **Fish and Fish Habitat and Surface Water field survey** – Spring/Summer 2022.
- **Mandatory LCFSP Reporting and submission of all NHIC data** – December 31, 2022, or as per LCFSP conditions.



## 5.6 Data Analysis and Reporting

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A fish and fish habitat baseline report will be prepared that describes the fish communities (including SAR and SOCC fish) and the fish habitat (including specialized and SAR habitats) present at the sites surveyed chosen by methods described in Section 5.2.1. The report will summarize and discuss the methods and results from both the desktop analysis and field surveys. Sensitive information, such as SAR, SOCC or IK data, will be protected where that information cannot be shared publicly (e.g., generalizing locations or data types). Data from field surveys will be used, as appropriate, to refine the pre-field desktop fish and fish habitat existing conditions and evaluate the potential for fish habitat (including SAR habitats). The report will be used to characterize existing conditions for fish and fish habitat as part of the EA and to support future permitting requirements for the Project. As part of the EA reporting and to provide an estimate of the overall habitat quantity in square metres of each criteria species in the preliminary Project footprint, the estimated bank-full width at each waterbody crossing will be multiplied by a width of the proposed disturbance. To qualitatively assess fish distribution, a list of fish species that may be potentially present in each waterbody will be generated. This will be a conservative assessment and will take into consideration waterbody type, fish distribution in the tertiary watershed, and known habitat preferences for each fish species. If there were any uncertainties about the ability of a waterbody to support a species of fish, a conservative approach will be used, and it will be assumed the species may be present in the waterbody.

Golder will complete the mandatory reporting required per licence conditions upon completion of the field survey. The mandatory reporting for the LCFSP will be submitted to the Thunder Bay, Fort Frances, and Dryden NDMNRF district offices prior to December 31, 2022 (or as mandated).





## 6.0 Baseline Surface Water Characterization Studies

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### 6.1 Purpose

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The purpose of the surface water field surveys is to characterize the existing surface water quantity and surface water quality, with a focus on the identification and characterization of waterbody crossings, to support an EA for the Project. The baseline characterization studies will rely on a desktop analysis and compilation of data from previous investigations and publicly available sources, as well as the review and interpretation of high-resolution imagery of the study area, as available. The baseline studies will be further augmented by the results of a targeted field program, with a plan to complete helicopter-assisted and ground-based field surveys in the preliminary Project footprint, at a subset of the waterbody crossing locations. The data will also be used to support future permitting requirements, where feasible.

### 6.2 Desktop Analysis and Field Planning

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The desktop analysis for the existing conditions assessment will include the following tasks:

- Identify study areas within the Project footprint that are specific to the surface water discipline.
- Interpret available high-resolution orthoimagery to identify and document each of the relevant waterbody crossings, noting that the results of this interpretation will be used to prepare, in collaboration with the fish and fish habitat team, a detailed waterbody crossing list for the Project (i.e., detailed database that provides a unique identifier for each crossing).
- Review and analysis of publicly available background data from the following sources:
  - Watershed mapping and other hydrometric data from NDMNRF Land Information Ontario (i.e., Ontario Hydrographic Network).
  - Regulation area mapping from Lakehead Region Conservation Authority.
  - Watershed area and return period flow data from the Ontario Flow Assessment Tool Version 3, developed by the NDMNRF, and powered by Land Information Ontario (MNR 2019).
  - Archived hydrometric data from Water Survey of Canada and MECP (ECCC 2018).
  - Archived water quality data from the MECP Provincial (Stream) Water Quality Monitoring Network (MOECC 2018a).
  - Source water protection zones from the MECP Source Protection Information Atlas (MECP 2019b).
  - Archived water taking data from the MECP Permits to Take Water Database (MOECC 2018b).



- Surficial geology, bedrock geology, topographic mapping from Ontario Geological Society, as well as other geology and groundwater data from existing geological and hydrogeological reports (e.g., MECP Water Well Inventory, Environmental Activity and Sector Registry, and Ministry of Energy, Northern Development and Mines reports).
- Indigenous Knowledge received through engagement with Indigenous communities or provided by Indigenous crew members during field surveys, including IK/TLRU studies.
- Other potentially relevant documentation (i.e., watershed assessment reports, scientific publications, consultant reports, and existing EAs).

### 6.2.1 Site Selection

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Surface water surveys will be completed in conjunction with the fish and fish habitat surveys. Therefore, the site selection for the surface water field program will match the methodology that has been detailed in Section 5.2.1.

### 6.2.2 Access and Field Maps

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Data gathered during the 2020 aerial reconnaissance and aerial imagery will be reviewed to determine the preferred mode of access for the ground-based field surveys. Survey sites are expected to be physically accessible by truck, foot, all-terrain vehicle, and/or helicopter; though land-owner permission to access the survey locations will need to be obtained on a case-by-case basis.

A map book of the waterbody crossing locations will be created once the full preliminary Project footprint is available. The preparation of these field maps will match the details that have been provided in Section 5.2.2.

## 6.3 Field Surveys

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The baseline studies will be further augmented by the results of a targeted field program, with a plan to complete helicopter-assisted and ground-based field surveys at a subset of the waterbody crossing locations.

The ground-based field surveys for surface water will be completed along a 200 m section of the waterbody (centred over the proposed crossing location), recognizing that the distance upstream and downstream of the proposed crossing will be based on the width of the channel. Field teams will look to characterize channel conditions that may affect the surface water at the crossing location (i.e., changes in channel slope, rock outcrops, beaver dams, etc.). The general survey footprint will be 100 m upstream and 100 m downstream of the crossing; however, this may vary depending on the size of the channel. Larger channels may require slightly larger survey extents to characterize specific channel details (i.e., slope, meander, etc.), while small channels may require smaller extents.

The following data will be recorded on electronic (e.g., collector or survey 123 platforms) or paper datasheets at each waterbody crossing location:





- **Documentation of Observed Waterbody Conditions** – A visual inspection will be completed along the full length of the study section to broadly define typical channel patterns and flow conditions. Visual inspections will be completed in the vicinity of the proposed crossing location to assess and document in detail the characteristic bed and bank morphology (including any erosion/deposition features), channel substrate, and riparian vegetation. The observed conditions at the waterbody will be documented every 25 m via photographs (looking upstream and downstream with full view of the channel and surrounding floodplain).
- **Completion of Rapid Geomorphic Assessment (RGA)** – The visual inspection along the full length of the study section will also be used to complete an RGA at the channel in accordance with the Ontario Stormwater Management Planning and Design Manual (MOE 2003). The results of the RGA will be used to provide a preliminary assessment of channel stability (based on the presence or absence of various indicators of channel degradation, aggradation, widening, and planform adjustment). As part of the RGA, any instances of channel instability will be documented via photographs and field notes.
- **Measurements of Observed Channel Geometry** – Basic measurements of channel geometry will be conducted at the proposed crossing, 50 m upstream of the crossing, and 50 m downstream of the crossing. The measurements will include estimates of bankfull width and depth, wetted width and depth, and side and channel slopes.
- **Measurements of Streamflow** – A spot flow measurement will be estimated in the vicinity of the crossing location using the velocity-area method. A tape measure will be extended across the length of the cross-section during the measurement event. Streamflow velocities and corresponding water depths will be collected at varying intervals along the cross-section depending on the width of the channel, noting that the intervals should be spaced to allow for approximately 20 velocity and water depth readings (with a minimal interval width of 0.1 m). Current velocities will be recorded with an electromagnetic flow meter at 60% of the total water depth (for water depths less than 0.50 m) or at both 20% and 80% and then averaged (for water depths greater than 0.50 m).
- **Completion of Basic Topographic Channel Surveys** – A basic topographic survey will be obtained at a single channel cross-section using level survey equipment or Real Time Kinematic/total station equipment. The survey will be targeted at the proposed crossing alone, with a plan to collect a few bed elevation shots at locations upstream and downstream of the crossing to define the characteristic channel slope and any significant controls. Elevations within the channel (extending from the top of bank on each side of the stream) will be collected at intervals of approximately 0.25 m to 0.5 m. The higher level of detail (i.e., intervals of 0.25 m or less) will be used in instances where bed or bank topography is noticeably more variable. Elevations within the channel will also be collected for the edge of water on each side of the waterbody. Elevations at the floodplain will be collected at intervals of approximately 5 to 10 m. Any prominent topographic high points along the length of the channel profile (e.g., riffles, beaver dam, existing crossing structures) will also be surveyed. The survey measurements will be tied to a local benchmark (to be installed and marked in the vicinity of the crossing location).



The results of the basic topographic channel surveys will be used to generate coarse-level hydraulic calculations at the planned crossing structures, as well as assess navigability characteristics.

- **Measurements of Water Quality** – In-situ measurements of water quality conditions, including conductivity, pH, temperature, and dissolved oxygen, will be taken using a multi-parameter water quality meter at the proposed crossings.

## 6.4 Quality Assurance and Quality Control

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Surface water data collected during the baseline field surveys will undergo a QA/QC process for consistency and accuracy. The specific tasks for field data QA/QC include:

- Field data will be collected on digital data forms via tablet where feasible. Hardcopies of the datasheets will also be carried in the field as a contingency measure in the event of tablet failure, breakage, loss, or poor weather (i.e., rain).
- Field equipment (e.g., velocity flow meters and water quality meters) will be calibrated according to manufacturer's recommendations.
- Prior to leaving each survey site, the surface water technician will QA/QC each datasheet collected for completeness. At the end of each field day, the surface water technician will QA/QC the datasheets for the day to confirm completeness and accuracy. The digital datasheets will be uploaded to the Golder server daily. The GPS files and photos will be downloaded onto a laptop and uploaded to the Golder server, where suitable internet access is available.
- The data will subsequently be reviewed by an office-based Golder employee to identify any errors or omissions that may have been missed by the field staff. The data will also be reviewed by a Golder water resources engineer.
- Equipment will be checked daily to confirm it is operating within the allowable range and that the calibration records are up to date.

QA/QC for the waterbody crossing list will involve the following:

- Review by more than one person, including a water resources engineer to verify accuracy; and
- Review by a water resources engineer and a fish biologist to verify that the waterbodies are included and to QA/QC the data.

## 6.5 Schedule

---

The following describes the proposed field program schedule based on the current Project schedule.

- **Desktop Analysis** – January to approximately May or June 2022.



- **Site Selection** – Following preparation of the Project description with respect to the location of temporary and permanent access roads, criteria for determining crossing types, and criteria for riparian vegetation removal.
- **Fish and Fish Habitat and Surface Water field survey** – Spring/Summer of 2022.

## 6.6 Data Analysis and Reporting

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The results from the surface water assessment (desktop analyses and field surveys) will be documented and summarized in a baseline report. This baseline report will be used to characterize the existing local and regional surface water environment to provide a basis to assess Project-related effects on the water quality and quantity of the waterbodies that have been selected for crossing.

Field survey results will be summarized and extrapolated to crossings not visited with similar catchment characteristics. The field collected data (i.e., stream flow measurements, channel surveys, channel observations, rapid geomorphic assessments, in-situ water quality and photographs) will be tabulated and presented in a report appendix.



## 7.0 Closure

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We trust this document meets your present requirements. If you have any questions or comments, please contact the undersigned.

### **Golder Associates Ltd.**

Prepared by:

Reviewed by:

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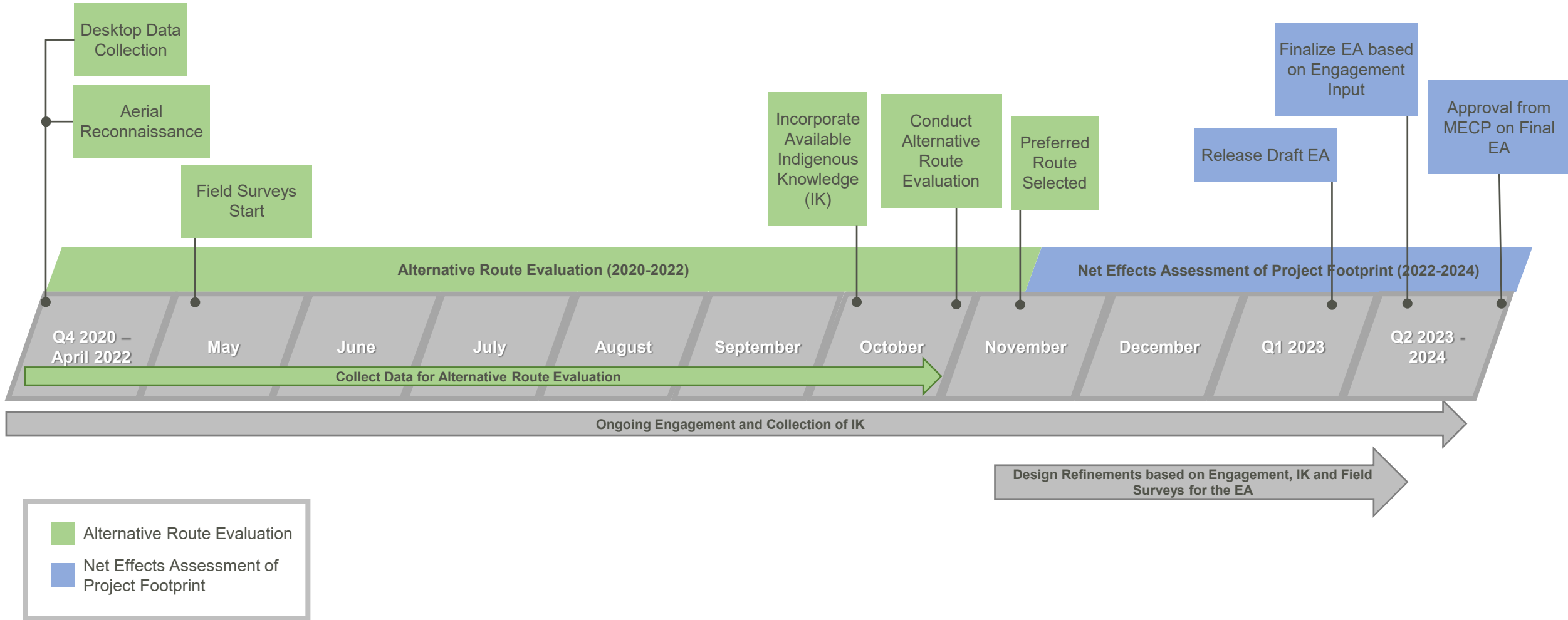
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## APPENDIX A

# Alternative Route Evaluation and Net Effects Assessment of Preferred Route Project Footprint Overview





# APPENDIX B

## Comments and Responses to the 2022 Draft Aquatic and Terrestrial Field Work Plans for the Waasigan Transmission Line Environmental Assessment





**1. Indigenous Community Comments:  
Comments Table – Waasigan  
Transmission Line Project – Pinchin and  
Maawandoon Review of Draft Field Work  
Plans on behalf of Gwayakocchigewin  
Limited Partnership (GLP) - Pinchin File  
294009.00. April 29, 2022.**





# MEMORANDUM

DATE: April 29, 2022.

MEMO TO: Gwayakocchigewin Limited Partnership (GLP).

FROM: Sebastian Belmar, Mario Buszynski, and James Neville.

RE: Review of the Terrestrial and Aquatic Field Work Plans 2022.

PINCHIN FILE: 294009.00.

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In March 2022, Hydro One published the Terrestrial and Aquatic Field Work Plans (“the Plans”) for the Waasigan Transmission Line Project (“the Project”). The Plans describe the field work activities that will be conducted to characterize the natural environment in support of the assessment of alternatives of the Project. Specifically, the Plans describe the proposed methods to collect baseline data for wildlife, wildlife habitat, vegetation, wetlands, fish, and fish habitat. Hydro One invited interested parties to submit comments on the Plans until April 15, 2022.

Pinchin Ltd. completed a technical review of the Plans. In this memorandum, the results of this review describe areas where additional information may be required to improve the technical sufficiency of the Plans. In addition, recommendations are made to enhance the clarity of the Plans and facilitate a common understanding by all the interested parties.

Id#	Field Work Plan	Section	Comment	Recommendation
1	General Comments		<p>While the Plans states that the purpose of the surveys is to “Incorporate Indigenous Knowledge/Traditional Land and Resource Use (IK/TLRU) as part of the baseline conditions, they do not describe how the integration will be achieved.</p> <p>It is unclear how IK/TLRU will be used as a criterion informing the selection of survey sites. Based on the information presented, and given the restrictive timeline, it is critical that the Proponent presents a solid approach to facilitate the IK/TLRU integration.</p>	<p>Propose an explicit approach to integrating TK/TLRU in the Field Work Plans. Specifically, the approach should include additional engagement with the Protection Committee to discuss its understanding of the environment within the LSA.</p>
2	General Comments		<p>The Plans do not provide rationales justifying the selection of sampling efforts. This is critical, because the sufficiency of the field surveys depends on their ability to obtain representative samples of the ecological communities.</p> <p>Because one of the objectives of the field studies is to inform the assessment of alternative routes, it should be considered that the selected effort must adequately sample all the routes under evaluation. Thus, unless an indirect approach to comparing the routes is proposed, the proposed sampling efforts may be inadequate for the assessment.</p> <p>In addition, it should be discussed whether the proposed efforts are adequate to examine the occurrence of rare species, including Species at Risk.</p>	<p>For each component of the Plans, present a solid rational justifying the adequacy of the selected sampling effort, in consideration of the evaluation of alternative routes.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
3	General Comments		<p>The Plans do not provide information on what socio-economic field studies will be undertaken, or whether information collected in the proposed studies will be used to support the assessment of socio-economic effects, including effects on traditional and recreational activities (i.e., hunting, trapping, and fishing), and tourism in remote areas.</p>	<p>Indicate if any field studies are proposed to support the socio-economic assessment.</p> <p>Indicate if the information collected by the studies included in the Plans will be used in the socio-economic assessment.</p>
4	General Comments		<p>In general, the Plans present a methodological approach to characterize the spatial variation in the ecological communities within the LSA. For example, the proposed breeding bird surveys aim to describe the diversity of bird species along the LSA during the reproductive season.</p> <p>However, the Plans do not consider the temporal variation in each of this communities. It is critical to understand that ecological communities are highly dynamic in space and time. Thus, a characterization of their diversity in this year may not adequately represent the community in the long term.</p> <p>Therefore, in ecological studies such as this baseline characterization, it is fundamental to account for temporal variation in the ecological communities by replicating the sampling effort over time.</p>	<p>Expand the proposed field surveys to include temporal replication, as adequate to each ecological component. The temporal replication may include seasonal and yearly surveys.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
5	<b>General Comments</b>		The Plans do not describe an approach to engage the Protection Committee members during the review of the results of the field studies.	It is recommended that the Proponent commits to sharing the field survey results with the Protection Committee and proposes a timeline to do this within each field component.
6	<b>Terrestrial</b>	<b>1.0 Introduction</b>	This section outlines each of the wildlife components that will be studied in the field surveys. Notably, there are no field surveys planned for mammals, including moose populations.	<p>Provide a rationale justifying the selection of the wildlife components of the Terrestrial Field Work Plan (“the Plan”).</p> <p>Explain why mammals, in general, are not targeted by specific surveys in the Plan. Furbearers and ungulates are of special importance to the First Nations in the Protection Committee. A comprehensive understanding of the potential effects of the Project on the rights of Indigenous peoples must quantify the adverse effects on these wildlife groups.</p> <p>Explain what approach will be used to study moose populations. If the use of existing data is proposed, present a solid rationale supporting this choice. It should be considered that information from winter aerial surveys may not provide suitable</p>





Id#	Field Work Plan	Section	Comment	Recommendation
				<p>information regarding the use of habitat within the LSA throughout the year.</p> <p>Similarly, explain why there are no proposed surveys to examine the occurrence of herpetofauna within the LSA.</p>
7	Terrestrial	1.1 Purpose	<p>This section states that one of the objectives is to “<i>Compile sufficient baseline data to enable an assessment of direct and indirect effects from the Project using the wildlife and wildlife habitat, vegetation, and wetlands criteria and indicators.</i>”</p> <p>However, the Plans do not describe the criteria and indicators that will be used in the assessment. Criteria and indicators are closely linked to the field studies because they determine the information that needs to be collected for the assessment.</p> <p>In the absence of explicit criteria and indicators, a critical review of the Plans is incomplete, as it is not possible to fully assess the adequacy of the proposed methods.</p>	<p>While the criteria and indicators were included in the Terms of Reference, it would be adequate to include them in the Plans. Further, because criteria and indicators are key to determining the approaches to the assessment, they should be explicitly linked to the methodologies presented in each section.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
8	Terrestrial	1.2 Study Area	<p>Regarding the assessment at the RSA level (cumulative effects), the Plan indicates that the boundaries for most wildlife populations are unknown, including bats and birds.</p> <p>Because of this knowledge gap, the Plan proposes that a 5 km buffer around the LSA represents an adequate regional scale (RSA) for wildlife with small to moderate breeding home ranges. However, it is unclear how home ranges would be related to population distribution.</p> <p>In the case of migratory birds, Environment and Climate Change Canada (ECCC) has previously stated that the adequate biological scale to examine cumulative effects on their populations is at the scale of Bird Conservation Regions.</p> <p>It should be mentioned that despite of the assessment of the Project being conducted at the provincial level, the jurisdiction on migratory birds at the federal level has been recognized by the courts, as protection of this group of species is a matter of national concern.</p>	<p>In discussions with the Proponent, it was stated that ECCC did not have any comments regarding the Field Work Plan. Regardless, we recommend that ECCC be consulted specifically on whether the assessment of cumulative effects on migratory birds is most appropriately done at the scale of the Bird Conservation Regions.</p> <p>For other species, provide supporting rationales based on available data, when available, or based on the ecology of comparable species.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
9	Terrestrial	<p align="center"><b>5.3 Bat Maternity Roost Habitat Assessment and Acoustic Monitoring</b></p>	<p>The locations for acoustic monitoring will be selected using data from the Forest Resource Inventory (FRI). Based on the characteristics of the ecosites, polygons representing adequate habitat will be selected. However, this will result in a very large pool of candidate sites.</p> <p>However, factors other than the vegetation composition may be relevant for the selection of roosts. For example, <i>Myotis lucifugus</i> shows more fidelity to feeding areas than to roosting trees. Thus, incorporating the availability of foraging habitat in the selection criteria may help narrow down the pool of candidate sites.</p> <p>It should be noted that maternity roosts are not identified as critical habitat in the federal recovery strategy for bats, because of the lack of knowledge on their location and relevance. Further, Ontario has adopted the federal recovery strategy under the Ontario Species at Risk Act. Nevertheless, an adequate justification of the effort selected (25 stations) should still be presented, given that candidate habitat is common and widespread all over the LSA.</p> <p>The Plan states that a “bat acoustic specialist” will validate the automated classification completed by SonoBat. In this regard, will validation be conducted on a random sample of the total set? While this is important to estimate a rate of error in the classification, the proponent should also consider</p>	<p>What year is the imagery used in the FRI and was the classification adjusted by the age of the dataset?</p> <p>Consider the use of additional criteria in the selection of survey sites, such as a measure of distance to foraging habitat.</p> <p>Provide a rationale supporting the choice of sampling effort for maternity roosts (n = 25).</p> <p>Describe the approach that will be used to validate the automated classification of bat calls.</p> <p>Clarify how the location of roosting trees will be determined and outline the limitations of the selected approach.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
			<p>validating all “rare” occurrences in the dataset, for example, following a frequency-based criteria (i.e., validate all calls assigned to species with relative frequency of less than 10% per station).</p> <p>It is unclear how the measured metrics (average bat passes per night and peak activity) will be used to determine the location of roosting trees. This may be particularly difficult in consideration of the speed at which bats fly and for species that forage far away from their roosts, such as little brown myotis (2,400 m around the maternity site).</p>	
10	Terrestrial	<b>5.5 Barn Swallow Surveys and 5.6 Bank Swallow Surveys</b>	<p>The approaches proposed to identify features that may support nesting for barn and bank swallows, and to survey the selected locations is adequate. However, as mentioned above, the lack of explicit criteria and indicators makes it challenging to evaluate the suitability of the Plan.</p>	<p>Describe the criteria and indicators that will be used in the assessment of each environmental component.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
11	Terrestrial	5.7 Breeding Bird Surveys	<p>The Plan states that the “<i>Breeding bird survey effort will consist of 96-point count stations...</i>” Further, the Plan states that the survey effort will be allocated in proportion to the representation of each ecosite within the LSA.</p> <p>The effort may be adequate if ecosites are grouped into categories. However, grouping would also lead to the loss of fine-scale information regarding habitat-species associations.</p> <p>Further, proportional allocation of the effort may cause rare ecosites within the LSA to receive an inadequate level of effort.</p>	<p>How many different ecosites are found within the LSA and what is their frequency distribution?</p> <p>How will the effort be allocated along the LSA? For instance, will sampling units be distributed randomly along the LSA or will they be aggregated near areas that are easily accessible?</p>
12	Terrestrial	5.7 Breeding Bird Surveys	<p>The vocalizing activity of birds is known to change throughout the breeding season. For instance, acoustic surveys of birds in York, Ontario, conducted in mid-late May detected a significantly larger number of species than surveys in mid-late July.</p> <p>Anecdotally, this reviewer mapped territories of Nashville warblers in northwestern Ontario between late May and early June. By the second week of June, all the regular territorial calls came to a halt. A similar decrease in activity was observed in most bird species, except red-eyed vireo.</p>	<p>If breeding bird surveys are to be conducted throughout the season, a statistical comparison of stations surveyed earlier and later in the season should be conducted.</p> <p>Alternatively, efforts should be made to conduct the surveys as early as possible within the planned survey window.</p>





Id#	Field Work Plan	Section	Comment	Recommendation
13	Terrestrial	5.7 Breeding Bird Surveys	The minimum distance between stations (250 m) would result in gaps of only 50 m between the closest possible stations. With such a small gap, the likelihood of “double counting” individuals may be high. Further, individuals of species with louder calls could be detected in more than one station, biasing all the recorded metrics.	Revise the proposed minimum distance between survey stations to reduce the likelihood of introducing unaccounted variation in the survey.
14	Terrestrial	5.7 Breeding Bird Surveys	As with other components, the section on Data Analysis provides little information, other than summarizing some metrics that will be calculated and reported. Critically, this section does not indicate what criteria and indicators will be used in the assessment of effects, making it difficult to determine with certainty what information should be collected.	Describe the criteria and indicators that will be used in the assessment of each environmental component.
15	Terrestrial	5.7 Breeding Bird Surveys	This section indicates that “ <i>Surveys will not be completed during periods of high winds or inclement weather.</i> ”	Beaufort index and other environmental covariates should be recorded, including time, temperature, and precipitation, as they are known to influence the activity levels of birds and their probability of detection.



Id#	Field Work Plan	Section	Comment	Recommendation
16	Terrestrial	5.8 Marsh Bird Surveys	<p>The Pre-field Mapping section states that “<i>Preliminary survey locations will be selected within the LSA in advance of the field program through a desktop analysis of available land cover mapping...</i>” Later, it states that “<i>No provincially mapped marsh bird breeding habitat is present within the LSA for the alternative routes.</i>”</p> <p>As it is noted below for the Wetland Surveys section, the provincial FRI dataset excludes ecosites associated with waterbodies, including important wildlife habitats such as emergent marshes.</p>	<p>Could the Proponent clarify whether the second statement means that the habitat is not considered present based on the FRI or that the provincial mapping is incomplete?</p> <p>Regardless, the limitations of the provincial wetlands inventory come into play here. If the goal is to predetermine appropriate survey locations using the wetlands inventory, delineation of wetland ecosites within waterbodies must be completed.</p>
17	Terrestrial	5.8 Marsh Bird Surveys	<p>The Plan states that the marsh bird surveys will be conducted during single visits to each site. However, the standardized method included in the Marsh Monitoring Program Participant’s Handbook for Surveying Marsh Birds (Bird Studies Canada, 2009), requires of two visits.</p> <p>This approach is concerning, as single-visit surveys on each site may reduce the likelihood of detecting the presence of rare species, including the Species at Risk yellow rail (<i>Coturnicops noveboracensis</i>).</p>	<p>The proposed approach to effectively characterize the marsh bird communities should consider, at least, two visits per site.</p>
18	Terrestrial	5.10 Eastern Whip-poor-will Surveys	<p>The Plan states that suitable habitat for conducting eastern whip-poor-will surveys was identified a priori based on the most recent available FRI data.</p>	<p>Confirm the age of the FRI dataset and whether the stands classification was corrected by the age of the dataset.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
19	Terrestrial	5.10 Eastern Whip-poor-will Surveys	The Plan states that “In addition to this GIS analysis, the most recent available imagery was used, where possible, to verify these ecosites at a desktop level.	Describe how the ecosite verification was conducted.  Based on the verification, how accurate was the FRI classification?
20	Terrestrial	5.10 Eastern Whip-poor-will Surveys	The survey effort (n = 80) seems adequate, considering that the Project is located at the edge of the range of this species and that records suggest that density in northwestern Ontario is low.  However, the Plan does not describe what criteria will be used to select the location of the survey stations and, if multiple criteria will be used, how they will be combined.	Describe what approach will be used to select the location of the survey stations for this species.  Perhaps it would be most adequate to use the presence of suitable habitat combined with former records to identify broad target areas to be surveyed following the roadside protocol with 1 km of distance between stations.
21	Terrestrial	5.10 Eastern Whip-poor-will Surveys	The Plan does not describe what environmental covariates will be recorded during the surveys. Because detectability of eastern whip-poor-will is influenced by several environmental factors, it is critical to record them to evaluate the adequacy of the surveys.	Indicate what environmental covariates will be collected during the surveys, including: <ul style="list-style-type: none"> <li>- Cloud cover</li> <li>- Precipitation</li> <li>- Percentage of moon illuminated</li> <li>- Wind noise (Beaufort scale)</li> <li>- Temperature</li> </ul>



Id#	Field Work Plan	Section	Comment	Recommendation
22	Terrestrial	5.10 Eastern Whip-poor-will Surveys	<p>The Data Analysis section states that triangulation methods based on protocols prepared by the New Hampshire Audubon Society will be used. The locations, combined with a desktop habitat assessment, will then be used to determine the approximate centre of each bird territory.</p> <p>It should be taken into consideration that spot-mapping is a challenging approach that leads to underestimating the size of territories when acoustic detection is not accompanied by visual identification of a bird.</p> <p>In the region, breeding densities of this species are low. However, if there are two or more contiguous territories being defended, spot-mapping could result in large biases if vocal activity is low.</p>	Consider repeated visits to survey stations with confirmed detections of eastern whip-poor-will.
23	Terrestrial	5.11 Gray Fox	<p>The Plan does not propose a targeted survey of gray fox. Instead, it will rely on incidental observations during other field activities.</p>	Has consideration been given to the use of hair traps in some targeted areas where previous observations have been documented? For example, see Castro-Arellano et al. (2008): Hair-Trap Efficacy for Detecting Mammalian Carnivores in the Tropics, and references found within this article.



Id#	Field Work Plan	Section	Comment	Recommendation
24	Terrestrial	5.12 Anuran Call Counts	<p>A challenge of the approach proposed is that the selection based on the FRI dataset will result in a large pool of candidate Significant Wildlife Habitat (SWH) areas.</p> <p>Naturally, it is impractical to aim to survey all candidate areas. Thus, it is important to ensure that the proposed survey effort (n = 80) is allocated throughout a representative sample of the total land base. This means that survey stations should be distributed along ecosites and over the length of the LSA.</p>	Indicate what is the strategy that will be used to allocate the survey effort over the study area.
25	Terrestrial	5.13 Candidate Significant Wildlife Habitat	<p>The field verification approach proposed seems mostly appropriate. However, the fact that 2% of the occurrences will be verified for SWH with more than 30 occurrences could be problematic for rare habitats, including “Rare Tree: Red and Sugar Maple”, “Turtle Nesting”, and “Waterfowl Stopover Staging Areas - Terrestrial”. For example, if a candidate SWH type is represented by 200 occurrences, only 4 of those would be field-verified, and a strong rationale would be required to justify such a low effort.</p>	Consider setting a minimum sample size for all candidate SWH.
26	Terrestrial	5.13 Candidate Significant Wildlife Habitat	<p>The approach described for the consideration of SWH in the Alternative Route evaluation is unclear. For example, for a common candidate SWH type, does the approach mean that the 98% of polygons not verified will still be retained as candidate for the assessment?</p>	Clarify the meaning of the approach described and discuss potential limitations to the assessment imposed by the choice of such approach.





Id#	Field Work Plan	Section	Comment	Recommendation
			<p>If that is the meaning of the approach, then it may unjustifiably bias the assessment in favor of common SWH types. Further, this approach may amplify potential errors in the FRI classification.</p>	
27	Terrestrial	6.0 Vegetation and Wetlands	<p>The Plan states that “<i>Efforts will be made to establish at least one survey location in as many of the plant community types as possible.</i>” If this was to be interpreted as meaning that the sample size for each community type will be at least one, then the survey effort could be very low. Further, the proposed Site Selection assumes that the FRI classification is accurate.</p>	<p>Considering possible errors in the FRI and the age of the dataset, it would be relevant to propose a field approach to verify the accuracy of the classification.</p> <p>For instance, based on the frequency distribution of ecosites within the LSA, it would be possible to select a representative sample of polygons to validate the classification. The field validation would also provide an estimate of error rate in the FRI that would be very helpful to address uncertainty in the surveys.</p>
28	Terrestrial	6.0 Vegetation and Wetlands	<p>Sustainable Forest License-holders may have updated land classification datasets based on their Forest Management Plans and operations. The information in these datasets may be useful to supplement, update, and verify the accuracy of the FRI used in field planning.</p> <p>Further, information from license-holders may also include plans for roads development and harvest</p>	<p>We recommend that consideration be given to establishing communication channels with the license-holders for the Forest Management Units included in the Project, with the objective of obtaining and making use of their existing data.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
			that may be useful for the assessment of alternatives.	
29	Terrestrial	6.0 Vegetation and Wetlands	<p>Notably, this section does not contain any information regarding the wetland field surveys.</p> <p>As it is mentioned above, it should be noted that the FRI may not include wetland ecosites within waterbodies, such as emergent marshes.</p>	<p>The proponent should verify whether the FRI excludes some wetland ecosites. If confirmed, then an approach should be proposed to address this limitation.</p> <p>Provide information regarding the potential for Provincially Significant Wetlands to be found within the LSA.</p>
30	Aquatic	1.2 Study Area	The Aquatic Plan states that a detailed waterbody crossing list will be created and a subset of the list will be surveyed for fish and fish habitat.	<p>What criteria will be used to select the waterbodies to be surveyed?</p> <p>What proportion of the total or number of waterbodies will be surveyed?</p> <p>Has this approach been consulted with DFO and MNRF, as opposed to a survey of all waterbodies?</p>
31	Aquatic	3.0 Health, Safety, and Environment	Specific information regarding Covid-19 prevention and response measures should be incorporated to the Aquatic Plan.	Does the Aquatic Plan consider making rapid antigen tests for Covid-19 available to field personnel?



Id#	Field Work Plan	Section	Comment	Recommendation
				<p>Does WSP Golder have a vaccine mandate in place for their field crew?</p> <p>What measures will be taken if a field crew member tests positive to Covid-19? Will the measures be based on local (i.e., TBDHU or NWHU), or provincial guidance?</p>
32	Aquatic	4.1 Indigenous Participation	<p>Field activities require the use of protective gear and specialized outdoors equipment that can be costly. Will Indigenous field crew members be provided protective gear, such as steel-toe shoes, waders, electrofishing gloves, etc.?</p>	<p>Specify what protective gear will be provided to Indigenous field crew members.</p>
33	Aquatic	5.0 Baseline Fish and Fish Habitat Characterization Studies	<p>The Aquatic Plan states that a subset (25%) of all waterbodies crossed will be surveyed, and that the results will be extrapolated to other waterbodies within the same watershed. However, the fish community observed in a waterbody, for example, may not be representative of other waterbodies within the watershed, if dispersal barriers are present.</p> <p>Further, this section does not explain whether IK/TLRU will inform the selection of waterbodies to be surveyed. The First Nation members of the Protection Committee have a unique and distinct understanding of their Traditional Territory, the aquatic habitat present, and the fish species that occupy it. Not considering IK/TLRU in the selection</p>	<p>As it is mentioned above, the Plans should present an explicit approach to incorporate IK/TLRU in the selection of survey sites. It is recommended that the Proponent engage the Protection Committee members to review the site selection and propose additional waterbodies of interest.</p> <p>Present a rationale justifying the selected sampling effort. Specifically, describe how the effort will be allocated throughout the LSA and within each alternative route.</p>



Id#	Field Work Plan	Section	Comment	Recommendation
			<p>of waterbodies may result in the exclusion of waterbodies that are important for the exercise of rights of the Protection Committee First Nations.</p>	
34	Aquatic	5.3.1 Fish Habitat Assessment	<p>The Plan states that a detailed assessment will be conducted to determine if the habitat available can support critical life stages of the fish species that may be present in each waterbody. Specifically, the Plan indicates that the habitat availability for small-bodied fish, large-bodied fish, Species at Risk, and Species of Conservation Concern will be assessed.</p> <p>However, the Plan does not mention if the habitat assessment will include species of cultural significance to the First Nation members of the Protection Committee.</p> <p>Also, the assessments should consider that habitat requirements can vary widely among species. Particularly, large-bodied species may have distinct habitat requirements. However, the information presented in the Plan is insufficient to determine if the proposed methods are adequate to evaluate the availability of habitat for all the species potentially present in each waterbody.</p>	<p>The Proponent should compile a list of fish species of cultural significance to the First Nation members of the Protection Committee and commit to assessing the availability of habitat for each of them.</p> <p>Provide a detailed description of the habitat assessment protocol that will be used to adequately account for a potentially wide variation in habitat requirements within the fish community.</p>
35	Aquatic	5.3.2 Fish Community Sampling	<p>The use of electrofishing sampling is a generally safe technique. However, the safety of the crew and the fish requires that all crew members receive basic training.</p>	<p>Will Indigenous field crew members be trained on the safe operation of electrofishers?</p>



Id#	Field Work Plan	Section	Comment	Recommendation
36	Aquatic	5.3.2 Fish Community Sampling	The description of the electrofishing methodology lacks details needed to evaluate the sufficiency of the method. Specifically, it should be described whether a single-pass, standard, or multi-pass method will be employed.	Present a detailed description of the electrofishing approaches that will be used, including when each type of survey will be used.
37	Aquatic	5.3.2 Fish Community Sampling	Holding captured fish over extended periods of time can be stressful and result in fish injure or mortality.	What measures to minimize the holding time of fish will be implemented?
38	Aquatic	5.3.2 Fish Community Sampling	<p>The Aquatic Plan proposes to weigh and measure the length of the first ten fish captured of each species. However, there are several factors that may result in a biased distribution of fish lengths and weights by using this approach.</p> <p>First, fish of different age classes may prefer different habitats (i.e., Young-of-the-year versus fish one year old and older). Second, some age classes may be much more abundant than others. Third, in the case of electrofishing, the response to a fixed voltage is influenced by fish mass.</p>	Generally, fish length can be measured quickly without significantly increasing the holding time. Thus, if approved by the regulatory agency, consideration should be given to measuring all fish.
39	Aquatic	5.3.2 Fish Community Sampling	Given the relatively small area to be sampled, some individuals could be shocked twice if they move upstream following their release.	What measures will be taken to prevent “double shocking” of fish?
40	Aquatic	5.3.2 Fish Community Sampling	The Plan describes the disinfecting procedures to avoid the spread of aquatic invasive species and pathogens. However, clarification is required regarding the frequency of use of the protocols. The Plan states that disinfection will be conducted “prior	Include in the Plan a commitment to disinfect the gear each time a new waterbody is to be surveyed. As a good practice, it is recommended that all the gear be



Id#	Field Work Plan	Section	Comment	Recommendation
			<p><i>to the field survey and then daily.</i>” However, if multiple waterbodies are surveyed within the same day, it is essential to disinfect the gear each time a survey is completed.</p> <p>Available distribution information on aquatic invasive species can be found in the Early Detection and Distribution Mapping System (EDDMapS) dataset. It is recommended that screening of this dataset be completed to identify zones of high risk and inform field crews, promoting heightened awareness.</p>	<p>disinfected each time a survey is completed.</p> <p>It is strongly recommended that the surveys be scheduled, when feasible, to prioritize waterbodies with no known aquatic invasive species, leaving those with confirmed presence for later.</p>
41	Aquatic	6.0 Baseline Surface Water Characterization Studies	The Aquatic Plan states that channel geometry will be measured 50 m upstream and 50 m downstream of the proposed location of the crossing.	Clarify if the location of the crossing is included in the assessment of channel geometry.
42	Aquatic	6.0 Baseline Surface Water Characterization Studies	The Aquatic Plan proposes the collection of surface water quality and flow during a single season, without seasonal or yearly replication. This is concerning, because this approach may result in an inadequate characterization of the fluctuations in flow and water quality	It is recommended that the Proponent develops a multi-season, multi-year sampling program for surface water, ensuring a more adequate characterization of the temporal variation.



**2. Indigenous Community Comments:  
Comments Table – Waasigan  
Transmission Line Project – Grand  
Council Treaty #3 Feedback on Hydro  
One’s Proposed Field Studies for  
Environmental Assessment. April 29,  
2022.**





GICH OZHIBW'IGE OGAMIC  
ADMINISTRATIVE OFFICE

**GRAND COUNCIL TREATY #3 FEEDBACK  
HYDRO ONE'S PROPOSED FIELD STUDIES  
FOR ENVIRONMENTAL ASSESSMENT  
APRIL 29, 2022**

Sarah Cohanin  
Environmental Programs and Approvals  
Hydro One Networks Inc.  
483 Bay Street, 8<sup>th</sup> Floor  
TORONTO, Ontario M5G 2P5

**Re: Review and Comments on Proposed Field Work - Environmental Assessment,  
Waasigan Transmission Line**

Dear Sarah Cohanin,

**Background:** The comments below are representative of the Territorial Planning Unit (TPU) of Grand Council Treaty #3 (GCT#3) for the proposed Field Work for the Environmental Assessment for the Waasigan Transmission Line. GCT#3 is the Traditional Government of the Anishinaabe Nation of Treaty #3 and represents 28 First Nations across the Territory. Grand Council's mandate is to protect the future of the Anishinaabe people by ensuring the protection, preservation, and enhancement of inherent and treaty rights.

The TPU is a department within the Grand Council that works with the Treaty #3 Leadership to protect the lands, water, and resources within the 55,000 square miles of Treaty #3 Territory. The TPU is guided by Anishinaabe Inakonigaawin - Manito Aki Inakonigaawin (Great Earth Law) and Treaty #3 Nibi (water) Declaration.

**Governance:** Treaty #3 territory is governed by Anishinaabe law, called Manito Aki Inakonigaawin (Great Earth Law), and the Nibi declaration. Manito Aki Inakonigaawin represents respect, reciprocity, and responsibilities with all relations in regards to Mother Earth. The law signifies the duty to respect and protect lands affected by over-usage, degradation, and unethical processes. The law is unique to Treaty #3 territory and passed on through our elders and knowledge keepers.

The Nibi Declaration represents respect, love, and the sacred relationship with nibi (water) and the life that it brings. It is based on teachings about water, lands, other elements like air and wind, and creation. The declaration is meant to preserve and share knowledge with youth and future generations. The

declaration guides us in our relationship with nibi so we can take action individually, in our communities, and as a nation to help ensure healthy, living nibi for all creation.

### **UNDERSTANDING OF THE PURPOSE OF**

#### **WAASIGAN ENVIRONMENTAL ASSESSMENT AND RELATED FIELD STUDIES:**

- Confirm the preferred route and conceptual design of the Project
- Consideration and documentation of the impacts to the natural and socio-economic environment as a result of construction, operation, maintenance and retirement of the Project
- Consideration and documentation of the appropriate and necessary mitigation measures to eliminate, minimize or avoid potential adverse Project-related impacts
- Consultation

The feedback is structured to reflect the major themes set out in Hydro One's proposed field studies, and included other factors of concern, such as socio-economic and human health concerns. As stated in past feedback for the Terms of Reference for the Environmental Assessment, the studies undertaken to address the Natural, Socio-Economic, Indigenous Communities (Cultural) and Technical (Policy/Institutional), considerations are the very foundation of an Environmental Assessment. As such, our feedback reflects our concerns as they relate to these factors that are being studied and considered for decision-making related to the Waasigan Transmission Line. Therefore, on the basis of GCT3's understanding of the purposes of the Environmental Assessment, and the field studies that will inform the assessment, the following feedback is provided:

1. **PRINCIPLES OF APPROACH TO FIELD STUDIES:** Inclusion of Anishinaabe Inakonigaawin and traditional knowledge- The Nation is extremely rich with Anishinaabe Knowledge, which is completely unique to the region. This knowledge in our area is mostly unwritten and can only be learned through discussions with Elders and Knowledge Keepers. One application of the traditional laws is Manito Aki Inakonigaawin, which is a guiding framework in the decision making process of the Anishinaabe Nation as it relates to activities impacting the Treaty #3 Territory. In this Anishinaabe framework, there is a both a community decision making process and a Nation based decision making process that is outlined which are: application, engagement/consultation, authorization, and compliance and monitoring. This significantly increases the value-added to continue to support and invest in the Nation of Treaty #3 as this information is not accessible through any other mechanism.
2. **Provision of Information** - GCT3, TPU expects that the results of the field studies, including the preliminary base-line environmental studies and desk-top data sets of information be provided to our offices upon completion, and be available to any of the 28 communities upon request.



3. **Over-Use of Desk-Top Data** – GCT3, TPU expresses concern about the over-reliance of desk-top data sets provided by third parties. The concern rests in the use of out-dated data, computer-generated data models that are not representative of Anishinaabe knowledge and processes.
4. **Hiring of Technical Support** – With Golder hiring technical support for the field work, GCT3, TPU expects that people will be hired from the Anishinaabe Nation in Treaty #3 or at a minimum those with unique knowledge sets of Northwestern Ontario to ensure governance and decision making is reflective of the Treaty #3 Territory
5. **Trap-Line Holders** - GCT3, TPU expects that any trap line holders be fully informed of the Project and fully engaged in the TK/TKLU and archaeological studies. Engagement of the trap-line holders would facilitate TK/TRLU community input.
6. **Species at Risk** - GCT3, TPU expects that special consideration be given to Species at Risk in this Project, and that efforts be made above and beyond the requirements set out in Ontario's Endangered Species Act (ESA) and the federal Species at Risk Act (SARA). The intentions of Treaty #3 communities and Manito Aki Inakonigaawin, are to protect all living beings in Treaty #3 Territory, and this change to Ontario legislation gives no comfort that the work to be conducted for the clearing of any lands for the purpose of transmission lines will respect Anishinaabe laws and processes.
7. **'Lands Taken Up – Cumulative Impacts'** - GCT3, TPU expects that Hydro One gives due consideration to all impacts to land and development in Treaty #3 Territory in terms of the Project's contribution to the ongoing cumulative impacts on the natural and built up environment by means of measuring the additional lands to be disturbed, (i.e. widening the Corridor).
8. **Visual Mapping of Impacts** - To facilitate GCT3, TPU expectation re: ongoing and overall development and a thorough understanding of impacts of the Project gained through the field studies, the TPU expects to see the anticipated impacts resulting from the field studies, mapped for visual representation.
9. **Cease Use of Glyphosate/Chemical Agents** - As the field studies contribute to the environmental assessment and then progresses towards construction, once again, GCT3, TPU emphasises that the clearing and maintenance of the Right-of-ways of the transmission lines must be done without the use of herbicides (glyphosate, or other similar chemical agents). These chemicals compromise the life of animals and humans alike, as well vegetation (blueberries, medicines, etc.) which are a vital aspect of Treaty #3 culture. In the Terms of Reference stage, Hydro One committed to examining operations and maintenance activities for the Right-of-way in the Environmental

Assessment, but made no commitment to cease the use of glyphosate and/or other similar chemical agents. Operations and maintenance activities that involve the use of herbicides (glyphosate, or other similar chemical agents) have a very significant impact on Treaty #3 members from a health, cultural, economic, environmental and social perspective.

**A. WILDLIFE:**

1. Over-emphasis on birds and birds of non-relevance from a cultural perspective. That being said, there is an absence of mention of great blue heron. Turtles and other reptiles are not identified for study. .
2. Amphibians are not identified for study and are an important indicator species for environmental impacts and changes.
3. While Moose and Grey Fox are targeted for monitoring there is a severe lack of mammal monitoring for the project in general. Many other fur-bearers are of cultural significance (i.e. moose, bear, red fox, and wolves) and were not identified for study. .
4. Activities of the key species identified should be considered in studies, (i.e. moose breeding and calving areas, wildlife denning sites, feeding areas), to consider their life support requirements throughout life cycles.
5. Wolverine are a key species and a core indicator of prey abundances, which are indicators of a health ecosystem. GCT3, TPU expects that wolverine will be included in the wildlife study.

**B. WILDLIFE HABITAT:**

1. Habitat of key species is important to be considered seasonally. As the species migrate with the seasons, the habitats that support them must be protected, or the species will be impacted.
2. Due to the disturbance on the land and removal of tree and surrounding habitat to expand the corridor, the likelihood of flooding and/or fires increases. GCT3, TPU expects that any disturbance on the land will be mapped so mitigation and preventative measures can be put into place to minimize the impact. In addition, great blue heron rookeries have become subject to loss of habitat due to development and land disturbances, which GCT3, TPU expects would be minimized. A buffer of 200 feet is not adequate to protect these critical habitats.
3. Of particular note is the importance of habitat corridors for wildlife. Hydro transmission lines are a significant factor in disrupting these critical habitats and healthy wildlife populations.

**C. VEGETATION:**



1. GCT3, TPU would expect culturally significant vegetation, such as blueberries and traditional medicines would be given important consideration in their protection, because of their significant relevance to the Anishinaabe Nation in Treaty #3.
2. Of particular importance to Anishinaabe Nation in Treaty #3, is the wild rice, which should be included in the field study.

**D. WETLANDS:**

1. Wetlands are viewed as underrepresented. This is a critical habitat for many of the species of concern, especially, Species At Risk.
2. Water levels are subject to significant change throughout the spring to fall seasons, and from year to year. The water levels determine the species and health of a species that live in the marshlands, birds, amphibians, and vegetation, i.e. wild rice. Consideration should be given to water levels over more than one to two seasons in a year, and more than one year, three at minimum, to determine the species that thrive or falter especially under the lens of climate change.

**E. FISH:**

1. Different species of fish should be prioritized, especially those most relevant to the communities, i.e. whitefish, walleye, muskie, sturgeon and trout, at a minimum.
2. Fish are a species that is key to monitoring pollutants. Consideration should be given to this criteria. The Experimental Lakes Area would be a good collaborative relationship to foster for this aspects of the studies.

**F. FISH HABITAT:**

1. The TPU sees the percentage of water-bodies and water-crossings being surveyed as not adequate. This is a point of consideration for inclusion of TK and TLRU to ensure cultural values are not compromised.
2. Surface water testing must be done in all seasons for the data to be relevant. There are significant variations of water temperature in the mix of seasons that support the fish and the quality of fish habitat.
3. Recent research on climate change indicates that fish are getting smaller due to the levels of oxygen in the lakes. In addition, water levels vary significantly from season to season and year to year. Consideration should be given to oxygen and water levels over more than one to two seasons in a year, and more than one year, three at minimum, to determine the fish species that thrive or falter.
4. Benthic Macroinvertebrates should be monitored for, both before and after the project. They are an excellent indicator for water quality, and specifically to this project potential



impacts of erosion and sedimentation stemming from project activities in/or around water bodies.

**G. SOCIO-ECONOMIC AND CULTURAL CONCERNS:**

1. Manito Aki Inakonigaawin, the Nibi declaration and other traditional knowledge as directed by communities must be included
2. Whether or not considered in the field studies, specifically, GCT3, TPU expects that socio-economic and cultural considerations, both positive and negative, will be taken into account, for consideration in the Environmental Assessment, i.e. access to social services, medical care, housing, reliable energy, clean water and nutritious foods (determinants of health), economic development opportunities, opportunities for training and increased drug trafficking,
3. Some cultural areas are more sensitive than others, requiring protection (environmental and confidentiality), i.e. burial sites, pictographs, ceremonial sites, etc.
4. Consideration of the perpetuation of cultural activities are important for cultural integrity, i.e. hunting, fishing, trapping, and foraging, i.e. blueberries. All of these activities are considered cultural norms that would compromise the quality of life in the communities if minimized in any way due to the Project.

**H. HUMAN HEALTH CONCERNS:**

1. Every effort must be made to prevent the release of pollutants, such as oil and gas spills, and especially glyphosate and alternative chemicals that will compromise the ecosystem and human health
2. Electromagnetic exposure from the end-product transmission lines pose a significant health concern to human health. GCT3, TPU expects every effort will be made to locate transmission lines away from human habitat.

The TPU submits this feedback after due consideration of the material provided and learning more about this stage of the Project and the potential outcomes.

Additionally to note, GCT3, TPU has not received some of the information that we have requested as the Project has been progressing, i.e. LiDAR data that was collected in the fall of 2021.

The TPU continues to support Gwayakochiigewin LP, and will make every effort to support them in their efforts to succeed. COVID-19 has hampered the ability to proceed as originally planned and it needs to be continually addressed the continuing impacts of the global

pandemic. The most effective means of engaging communities is in person. It is imperative, however that in-person engagement does take place.

In conclusion, the above feedback is intended to help understand the process better, protect the interests of the Treaty #3 communities and to work towards the best outcome possible for everyone concerned.

We appreciate your consideration of the above input. If any further information or questions are required please contact myself at [Michelle.Shephard@treaty3.ca](mailto:Michelle.Shephard@treaty3.ca).

Miigwetch,

A handwritten signature in blue ink, consisting of two distinct parts. The first part is a stylized, cursive signature that appears to be 'MS'. The second part is a more formal, cursive signature that appears to be 'Michelle Shephard'.

Michelle Shephard, Regulatory Specialist  
Territorial Planning Unit, Grand Council Treaty #3  
P.O. Box 1720, Kenora, Ontario, P9N 3X7

**3. Hydro One Responses: Lac des Mille Lacs First Nation (LDMLFN) Review of the Aquatic and Terrestrial Field Work Plans for the Waasigan Transmission Line Environmental Assessment. June 24, 2022.**



**Comments Table**

**Proposal:** Waasigan Transmission Line Project – Lac des Mille Lacs First Nation (LDMLFN) Review of the Aquatic and Terrestrial Field Work Plans for the Waasigan Transmission Line Environmental Assessment

**Proponent:** Hydro One

**Commenter Name:** Lac des Mille Lacs First Nation (LDMLFN)

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
1			How will baseline data from the EA be used in the conservation of aquatic and terrestrial ecology for the project?		<p>Baseline data collected for the EA will be shared* and available for use in the conservation of aquatic and terrestrial ecological values by increasing and improving our understanding and knowledge of these relatively under-documented values. The baseline data collection will document details about the distributions, ecology, and status of the ecosystem values, in such a way that the data could be used for future monitoring purposes. This same approach will also enable use of the data in studies by others (e.g., consultants, researchers, or Indigenous communities) and can support future community and land use planning, including evaluating potential impacts from development and climate change in the area.</p> <p>*Protocols will be followed such that sensitive data, such as the location of a species at risk (SAR), will not be shared publicly.</p>
2			We still require a copy of the maps for the field work plans		<p>Maps of field survey locations have been provided as part of the Field Work Notices issued to Indigenous communities.</p> <p>A link to a webviewer, where the field survey locations can be reviewed, is also available in the Field Work Notices.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
3			Will we be able to get a copy of the plans for the temporary and permanent access roads?		It is anticipated that the temporary and permanent access roads will be developed and shared in the fall of 2022 once a preferred route is selected and the access roads proposed to be used for the Project are identified.
4			Where are the plans for the quarry/aggregate pits?		It is anticipated that the proposed plans for the quarry/aggregate pits will be developed and shared in the fall of 2022 once a preferred route is selected and the quarry/aggregate pits proposed to be used for the Project are identified.
5			What is the plan if unexpected values are found?		<p>For all survey types, the findings will be considered in the evaluation of alternatives and the EA.</p> <p>For terrestrial resources specifically, all unexpected values will be recorded and photographed (if possible), a waypoint created, and an incidental datasheet filled out. SAR recorded will be reported to the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) Natural Heritage Information Centre (NHIC). These findings will be considered in the evaluation of alternatives and the EA.</p> <p>For the aquatic surveys, in the event that unmapped waterbodies are identified in the field, a GPS location, photographs and data regarding waterbody type, permanency, and fish habitat presence will be recorded. If SAR or species of conservation concern (SOCC) are determined to be present in the field, the Ministry of the Environment, Conservation and Parks (MECP) or NDMNRF (as appropriate) will be notified, fishing activities will cease and all licence conditions will be followed.</p> <p>Should invasive aquatic species presence be determined in the field, the NDMNRF will be notified and fishing activities, euthanization and disposal will follow the licence conditions provided. Invasive plant</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					<p>species will be recorded and reported in the baseline assessment.</p> <p>Should non-SAR/SOCC fish be captured outside their typical range, voucher photographs will be collected and verified by senior aquatic ecology staff or sent to an Assistant Curator of Ichthyology (Erling Holm) at the Royal Ontario Museum for fish requiring further confirmation of identification. This information will be provided to the NDMNRF within the mandatory reporting guidelines.</p>
6			Will we have access to the detailed waterbody crossing list?		<p>Details of the sites selected for the baseline surveys will be provided to the agencies and Indigenous communities through the NDMNRF Licence to Collect Fish for Scientific Purposes applications and Field Work Notices.</p> <p>The temporary and permanent waterbody crossing list will be determined once a preferred route is selected and the access roads proposed to be used for the Project are confirmed. The detailed waterbody crossing list will be used for the EA and appended to the baseline EA report.</p>



Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
7			How will the results of the E.A. help mitigate risks for SAR? What strategies are there to mitigate risks for SAR?		<p>If SAR species or habitat are documented through background data review or encountered in the field, the findings will be considered in the evaluation of alternatives and the EA.</p> <p>Relevant agencies, such as the MECP, will be consulted regarding the approvals required and measures recommended to protect the species.</p> <p>Site-specific and species-specific measures will be recommended in the EA and would become a condition of the EA approval, and permit applications would be submitted to the regulators where required.</p> <p>Strategies or measures to avoid or mitigate risk include habitat avoidance, respecting restricted activity periods, increasing monitoring during construction, implementing species-specific setbacks from sensitive locations (e.g., nesting, roosting or denning locations).</p> <p>For many species, there are many well-documented and frequently used mitigation measures that have proven to be effective at reducing the risk of impacts to SAR species.</p> <p>A full list of mitigation measures will be presented in the draft EA which will be available for review. The final list of mitigation measures will then be mapped spatially on construction work sheets for the purposes of instructing contractors and informing environmental monitors of mitigation commitments.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
8			How will surveys be used to measure impacts? How will impacts be mitigated?		<p>Baseline data will be collected based on established, effective species-specific or group-specific (e.g., breeding birds, reptiles and amphibians) protocols. For example, time/season appropriate surveys for breeding birds will be conducted to identify the diversity of birds using specific habitat types for breeding and nesting. The proposed Project footprint will then be compared to the breeding habitats and used to measure how much habitat will be removed or altered (e.g., fragmented) by the Project. Then, using previous documented research and observations of the changes to a breeding birds community from habitat disturbances or habitat removal, we will predict what the Project level of disturbance is likely to do to these individuals and populations. Similar processes will be applied to the other values to be assessed in the EA.</p> <p>Established and effective mitigation measures will be presented in the EA and will be implemented to reduce risks to the organisms.</p> <p>Also refer to the response to comment #7 with regard to the general approach for avoidance and mitigation.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
9			<p>Will baseline information be shared publicly or with other organizations to help with the advancement of science?                      Will this impact FN values?</p>		<p>Baseline information will be presented in the EA, which will be submitted to MECP and available for public review.</p> <p>Data collected for the preparation of the EA, such as fish collection records, will be submitted to the NDMNRF, and will then be available to others who are conducting research, sampling, or other activities.</p> <p>As noted in response to comment #1, protocols will be followed such that sensitive data, such as the location of a SAR, will not be shared publicly to prevent harm to the value. SAR records will be provided to the NHIC, which in turn shares the data in compliance with its protocols.</p> <p>Consideration of the potential impacts to First Nation values is important to this Project. Discussion with Indigenous communities regarding their values and potential impacts to their values is an important part of the EA process. Input received from field monitors and community engagement will be considered during the assessment and communicated with sensitivity in our documentation.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
10			Will the results of the EA be shared with the FN? What would this look like?		<p>Engagement sessions are planned throughout the EA process and include sessions in fall 2022 to share the results of the alternative route evaluation and identification of the preferred route.</p> <p>The draft EA Report will then be prepared, based on the findings of the field studies and the preferred route selection. This draft EA Report is expected to be available for review and comment by Indigenous communities in Q1 2023.</p> <p>Hydro One will consider the feedback received and incorporate that into the final EA Report, which will also be distributed for review and comment by Indigenous communities prior to a government decision.</p>
11			The field work plans indicate that field crews will be given Indigenous cultural awareness training. Training should include what to look for on the ground in terms of Indigenous values. Would we be able to get a copy of the resources used in the training? Perhaps we could add to it?		<p>The Hydro One and WSP Golder teams have taken part in Indigenous cultural awareness through different means, including:</p> <ul style="list-style-type: none"> <li>- Senior leadership at WSP Golder participated in a one-day cultural awareness training session led by external Indigenous consultants.</li> <li>- Technical leads with a field component and the Project Management/EA team participated in a half-day cultural sensitivity training session led by external Indigenous consultants.</li> <li>- All field crew members have viewed the Walk a Mile docuseries (partnership between the City of Thunder Bay and Thunderstone Pictures) that focuses on a higher level of cultural education.</li> <li>- All WSP Golder employees have taken an Inclusion and Diversity training module.</li> <li>- Members of the Project team, including field crew members, have taken cultural awareness</li> </ul>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					<p>training and will participate in a ceremony arranged by Wabigoon Lake Ojibway Nation before completing work in their traditional territory.</p> <p>As well, by incorporating Indigenous participants and monitors in our field programs, we are hoping to gain some direct input into what to look for on the ground in terms of Indigenous values, and we would welcome any additional resources or feedback from LDMLFN to share with our team members to help us better understand values of importance to LDMLFN.</p>
12			<p>It's important to recognize that the lack of SAR data in the Northwest should in no way inhibit the science and monitoring possible. It must be recognized that what little information is available, is directly a result of limited human presence and vast forested areas. Citizen science including the observations of local hunters, fishers, and the indigenous population should be incorporated into the science. Traditional knowledge and local knowledge in these circumstances must be taken into account.</p>		<p>Agreed, citizen science results, local and Indigenous Knowledge play a key role in providing background information where traditional science is lacking. Information collected during the field programs is intended to help fill data gaps and supplement the information that is currently available to us.</p> <p>Where permitted, our crew members will note any local and Indigenous Knowledge shared during the field program to provide a comprehensive characterization of the area. This data will be incorporated into the EA baseline reporting as well as impact assessment and identification of suitable mitigation measures.</p> <p>Citizen science data reported through programs such as clam counter, i-Naturalist, eBird, NDMNRF Fish ON-Line are being collated and considered during the baseline desktop assessments for the alternative route evaluation and inclusion in the EA as well.</p>
13			<p>It is important to acknowledge that Traditional Ecological Knowledge is of equal importance in comparison to western scientific approaches and should be treated as such, by being given equal credibility.</p>		<p>We acknowledge that Traditional Ecological Knowledge (TEK) is of equal importance to western scientific approaches and look forward to working with communities and incorporating TEK that is shared with us so we have an EA process that is as well informed and reflective of the local area.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
14			It is evident that there are constraints associated with monitoring of wildlife due to a lack of background data and information. Alternative information sources should be considered in these cases.		At the request of the NDMNRF, fish habitat and community field surveys will be restricted to locations where there are no existing data, to bolster the existing, but limited northern Ontario dataset. For other species or groups, in-field surveys have been proposed that are intended to collect data concerning wildlife and their habitat. Where background data (including Indigenous Knowledge) are lacking due to the constraints you have identified, the in-field surveys are intended to be an alternative information source and to facilitate documentation of potential impacts for assessment. When field crews are in the field, they are also responsible for documenting incidental observations (e.g., undocumented raptor nests, heronries, incidental wildlife encounters, etc.) to create a more complete dataset.
15			LDMLFN could help by providing information regarding wildlife values as well as indicate any other sensitive sites that have the potential to be impacted.		Thank you for the offer. We would be very happy to receive any information regarding wildlife values or other sensitive sites that LDMLFN is willing to provide, and to work with you to ensure it is accurately reflected in the assessment.
16			It would be beneficial to have someone from LDMLFN go on some of the field surveys, especially where values may be impacted.		Indigenous field crew members have been present on most of the field work completed so far in 2022 and the plan is to continue working closely with Indigenous communities to identify field participants for the remainder of the field season. This includes multiple full-time Indigenous hires, including one LDMLFN member at WSP Golder, to support field work. We would welcome further participation by LDMLFN in the field studies and acknowledge the benefit of having participants that can assist with identifying features of Indigenous value.



Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
17			<p>The statement made in the <i>Terrestrial Draft Wassigan Transmission Line Field Work Plan</i>, “Genetic results from a rare cougar carcass found near Thunder Bay in 2017 support this conclusion, indicating the individual came from an American population (CBC 2017)” has no scientific merit and should be omitted from the document as well as the statement “in the absence of an established population”. There are no resident cougar DNA samples to compare the sample to, so it is impossible to tell if the cougar was a resident or not. Certainly, all North American cougars will share very similar DNA. There are not enough DNA samples from cougars to support the assumption that the cougar found on Boreal Road, outside of Thunder Bay was in fact from the American population. Furthermore, cougars are known to occupy large ranges and are often sighted by local residents. For example, the First Nation has documented some cougar sightings in the area, and last year a resident from Thunder Bay caught a cougar on a trail cam.</p>		<p>We agree with the comment and will remove the statement “Genetic results from a rare cougar carcass found near Thunder Bay in 2017 support this conclusion, indicating the individual came from an American population (CBC 2017)”. Our intent was to provide context on the current state of cougar research in Ontario, including the low likelihood that targeted surveys would record the species.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
18			The author's reference of Rosatte, R. needs to be edited as it currently reads, "Evidence to support the presence of Cougars ( <i>Puma concolor</i> ) in Ontario, Canada", when the article is in fact titled, "Evidence Confirms the Presence of Cougars ( <i>Puma concolor</i> ) in Ontario, Canada". The author's reference of Rosatte's article in order to support the statement, "no confirmed observations of cougar were made", is completely misleading considering the conclusions of Rosatte's article/study was that cougars ARE PRESENT in Ontario.		The revision to the title of the article will be made  Available evidence suggests observations of cougar in Ontario may not represent an established population, with possible origins including escaped pets and immigrants from the west, though some native individuals may exist (Rosatte 2011). In the unlikely event of an incidental sighting during field investigations, details will be recorded.
19			"When roads are adjacent to waterbodies, it is recommended that the road alignment include a 30m setback between the road and any waterbodies to minimize the potential for any accidental release and delivery of sediments or deleterious substances to the waterbodies and to preserve existing riparian vegetation and bank conditions." – How is this measured? Distance must be measured at a flat angle (180 degrees) as opposed to a slope. It is important that field crews know this.		Since the intent of the statement was not to provide a precisely measured field parameter, we would propose to revise the FWP as follows: When roads are adjacent to waterbodies, it is recommended that the road alignment include an approximate 30 m setback between the road and any waterbodies to reduce the risk of accidental release and delivery of sediments or deleterious substances to the waterbodies and to preserve existing riparian vegetation and bank conditions. This distance is provided as a general guide and is only anticipated to be applied (in a very approximately manner) in field surveys where waterbodies are found in the field that have not been identified during desktop or aerial surveys.

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
20			<p>During field surveys for fish and fish habitat, and surface water; time of year as well as origin should be considered. How will this be reflected in baseline data?</p>		<p>Field surveys are being completed during the summer months to allow for fish collections and to enable field crews to characterize water features at the lowest water flow levels that may inhibit fish movements and surface water flows. Fish movement and water flow is one potential pathway of effect being examined during the EA process for impacts to surface water, fish and fish habitat. Crews will be collecting data that typically facilitates characterization of water features with extrapolation to seasons when data were not collected (e.g., recording observed “trash” lines where maximum flood waters occur, completing channel surveys to quantitatively characterize the channel dimensions and allow desktop hydraulic assessments to be completed).</p> <p>An additional reason the baseline data collections are planned for the period from June 15 to September 1 (a special exemption to extend the program to September 30 is being sought) is to predominantly work within the accepted in-water work fisheries timing window (July 15 to September 1) to avoid sensitive life history events (i.e., spawning) and egg/larval development periods. The use of in-water work timing windows is proven effective mitigation to avoid sensitive time periods.</p> <p>Headwaters or origins of waterbodies can be considered sensitive features and can be an important feature that supports specialized fisheries life processes (i.e., Brook Trout rearing). Sensitive features, such as headwaters, backwaters, springs/seeps, groundwater input, presence of watercress and iron staining, will be documented during the field survey if observed and considered during the impact identification and assessment processes.</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
21			As indicated in the <i>Wassigan Transmission Line Field Work Plan – Terrestrial</i> , Significant Wildlife Habitat (SWH) in Ontario is protected by the Provincial Policy Statement (2020), which includes animal movement corridors. Can ungulate crossings be surveyed for and/or noted with the possibility of being incorporated into development plans (areas where vegetation is left high enough that ungulates can use the cover to cross)? Corridor crossing protection would help mitigate the risk to ungulate populations as linear fragmentation over landscapes favors predators.	-	<p>Section 5.15 of the Waasigan Transmission Line Field Work Plan – Terrestrial (the Terrestrial Field Work Plan) presents specific items for consideration as Significant Wildlife Habitat (SWH) including identifying existing Animal Movement Corridors to inform the baseline characterization for the Project.</p> <p>The incorporation of corridor crossing protection in the design of the right-of-way is a common mitigation measure to decrease predation risk and will be recommended in the final design.</p>
22			American white pelican has been observed more frequently in the last 10 years in Northwestern Ontario. Last year pelicans were seen on Lac des Mille Lacs as well.		Thank you for this information. As mentioned in the response to comment #15 above, we are planning on incorporating Indigenous Knowledge into the EA and would be happy to receive all data the community is willing to share with us. This includes incidental observations that would be considered in the EA.
23			The primary cause for decline in turtle species is due to fatalities from motor vehicles when crossing roads or railways. It is important to note where roads, especially permanent roads are built in relation to turtle nesting areas. It is also important to notify workers to watch for turtles on roads and highways or avoid certain roads during nesting season. The snapping turtle, a species of special concern, is prevalent along the preferred route in certain areas.		<p>Thank you for the information regarding presence of snapping turtles. Information collected during the EA will inform the need to adjust, relocate or mitigate Project elements based on potential impacts to sensitive features.</p> <p>Pre-construction activities will include presentation of training material and training session with construction crews, including avoidance actions, such as identifying species of concern, avoiding certain areas or being especially vigilant, and safe handling procedures for susceptible wildlife such as turtles (i.e., proper handling techniques to move snapping turtles out of harm's way). Typically, this is also included as a condition of</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					approval from some agencies (e.g., as a condition in a permit granted under the <i>Endangered Species Act, 2007</i> ).
24			Black ash is now listed as endangered and occurs throughout the region. However, there are no plants to monitor for it in the field work plan, which should be remedied.		Section 6.1 of the Terrestrial Field Work Plan has been revised to clarify this. Black Ash is a tree species that will be surveyed for during the planned vegetation community and botanical inventory program. These surveys will identify appropriate habitat for black ash so that mitigation measures can be determined through the impact assessment process. In our experience, this is a commonly accepted approach that protects the relevant species and its habitat from an increased risk of impact.
25			Beavers like to build dams in culverts. Hiring indigenous trappers to help keep culverts clear of debris from beaver activities would be beneficial as it will also help fish populations, especially if done before the early spring run. Could the E.A. make note of this?		Skilled trappers are often hired as part of the post-EA, pre-construction process to help prepare sites by removing unwanted beavers and dams. Where appropriate, the EA will include recommendations regarding activities such as this and these recommendations can also include using Indigenous trappers.
26			There should be more flexibility in regard to time limits for breeding bird surveys. Limiting point count surveys to 10 minutes per plot (50 meter radius) may be difficult in order to achieve accurate data due to the forest cover/type.		Breeding bird surveys are being completed based on well-established and proven methods outlined in the Canadian Breeding Bird Survey (Downes and Collins 2003) and the Ontario Breeding Bird Atlas (Cadman et al. 2007). Cadman et al. (2007) requires five-minute point counts; however, we have doubled the time to ten minutes to improve detection. Additionally, it should be noted that the survey stations consist of a 50 m radius circular plot, with an additional 50 m “buffer” for a total of 100 m radius surveyed.  The methods described in Downes and Collins (2003), Cadman et al. (2007), and as modified for this Project (as described immediately above and in Section 5.7 of the Field Work Plan) are independent of forest cover and type as they rely on documenting acoustic

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					observations. Based on the proposed methods, 10 minutes per plot provides scientifically defensible, statistically sound results.
27			How many breeding bird surveys are being done?		Based on current planning (subject to field refinement), approximately 104 upland breeding bird surveys will be completed and 192 wetland breeding bird surveys will be completed.
28			Information from the McKellar Island Bird Observatory could be a good resource for additional species related information.		As mentioned above, we greatly appreciate information like this and will assess its applicability to the EA.
29			“No amphibian SAR occur in northwestern Ontario” should be amended to say no known amphibian SAR occur in northwestern Ontario. It would be beneficial to science to stop assuming and limiting science based on the fact that there is less species specific information available in the north.		Agreed. Language will be revised in the Terrestrial Field Work Plan to reflect this.
30			Why are there only 3 anuran call count surveys being done? This does not seem like enough. Would more be done if there was an anuran SAR identified in northwestern Ontario?		To clarify, three rounds of surveys are being completed at each of the 80 call count stations for a total of 240 call count surveys. The Terrestrial Field Work Plan will be updated to clarify this. The call counts take place during spring and early summer to capture early, mid-season, and late season calling amphibians. This same or similar protocol would be applied if there was an Anuran SAR being surveyed for.
31			The monitoring of Significant Wildlife Habitat (SWH) by ground truthing to determine if the areas should or should not be included as SWH has the potential for biased interpretation. How can bias be avoided? How is SWH determined at the field level?		To clarify, we are not doing species-specific SWH surveys to confirm SWH but we are ground truthing the ecosites that guidance provided by provincial agency (NDMNRF) considered potential as “candidate” SWH to determine if the ecosite is actually “candidate” SWH. The process to determine if habitat is confirmed SWH is also provided by the NDMNRF in the SWH Technical

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					<p>Guide (MNR 2000) as well as the Ecoregion Criteria Schedules (MNR various dates).</p> <p>Bias would presumably have been considered by NDMNRF when developing the guidance documents and protocols established using subjective characteristics and based on field data collection. Each type of SWH has specific inclusion criteria associated with its designation. Data to determine the presence of these criteria is collected during field investigations according to the requirements set out in the SWH Technical Guide (MNR 2000). The methods vary by candidate SWH type, but generally consist of targeted surveys for species/suitable habitat, as well as other characteristics such as vegetation community.</p>
32			<p>Are all species at risk being surveyed for, or just the ones indicated on the Terms of Reference and in the Field plans? Black ash is now listed as an endangered species in Ontario. There are many black ash trees in northwestern Ontario but there are no mentions of monitoring for it in the field work plans. There is also no mention of snapping turtles, golden eagles, salamanders, etc. The list of SAR that exist or have the potential to exist in the study area is lacking, which is concerning.</p>		<p>The list of SAR that are being considered as part of the Terrestrial Field Work Plan considers background information about the known distribution range of species, any previously reported occurrence records, incidental information, and public records (e.g., iNaturalist), in addition to feedback received after several rounds of agency review and Indigenous community review.</p> <p>Black Ash is a tree species that will be surveyed for during the planned vegetation community and botanical inventory program. Section 6.1 of the Field Work Plan has been revised to clarify this. These surveys will identify appropriate habitat for black ash so that mitigation measures can be determined through the impact assessment process.</p> <p>Snapping turtle were previously being targeted through turtle nesting surveys and now we have added in turtle visual encounter surveys to identify habitat within which turtles are overwintering.</p>



Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					<p>The study area is outside the Golden eagle breeding range and so is not anticipated to impact habitat for this key life process.</p> <p>There are no species at risk amphibians (i.e., salamanders) with ranges that overlap the study area.</p> <p>Survey targets are presented in Table 5-1 of the Terrestrial Field Work Plan. Sections 5.3 through 5.14 present the SAR/SOCC recorded within the study area, as well as a detailed approach to surveys for each species. Where it has been determined that surveys are inappropriate or unfeasible, rationale are presented for their exclusion and how they will be dealt with in the EA, as applicable.</p>
33			How many general wildlife surveys are planned?		<p>General wildlife surveys and habitat assessment will be conducted concurrent with all the other species specific, group specific, or habitat specific field investigations outlined in the Terrestrial Field Work Plan. General wildlife surveys will include a visual encounter survey (including observations of track and sign), an area search in selected habitats, and documentation of incidental wildlife observations. As these surveys will largely be incidental or opportunistic while doing other targeted surveys, it is hard to accurately quantify the number of surveys. Overall, general wildlife surveys and observations of wildlife sign will be taken throughout the months (and years) of field surveys planned for the Project.</p>
34			Does the EA include any plans for archeological surveys?		<p>A Stage 1 Archaeology Assessment is currently underway. We want to ensure opportunities are provided for Indigenous community involvement in this process, as a result, would welcome a meeting with LDMLFN to discuss the scope of this assessment and share any questions, suggestions, concerns or sources</p>

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					of information that should be considered. The results of this assessment will be incorporated into the EA report. Further archaeological assessments (e.g., Stage 2) will be undertaken, as required, on the preferred route once selected.
35			If a value of potential value is found that could be of particular interest to the First Nation, are their plans to share this information?		If there are values of importance to your community, we can share this information with LDMLFN, provided we can do so in compliance with protocols to protect sensitive data.
36			The schedule for field surveys is not very detailed. How many survey days will be dedicated each of the surveys listed? Is there a set number of days in which surveys need to be completed? Are there time constraints that could impede research? Is time spent on surveys for different species/species type fairly distributed?		Detailed field survey calendars are being finalized, and will be considered ‘living documents’ as implementation is based on many factors such as weather conditions, land access, etc. The number of days dedicated to each survey will depend greatly on the requirements of the protocol being used to complete the survey, as well as field crew members and Indigenous participants available. As such, the number of days is highly variable. The use of appropriate, proven sampling protocols is intended to result in surveys that are “evenly distributed”. The survey duration and frequency will always be consistent with the relevant protocol being used such that results of the surveys will be scientifically robust and defensible.
37			Where is the information about wildlife surveys? As indicated in the <i>Wassigan Transmission Line Field Work Plan - Terrestrial</i> , “Candidate Significant Wildlife Surveys (SWH) – to be conducted in conjunction with other planned wildlife surveys. General wildlife surveys that will result in incidental observations of wildlife and wildlife sign, wildlife habitats including SWH that are encountered while performing all other surveys”. How will there be enough time to monitor for wildlife while performing other surveys?		“Candidate Significant Wildlife <u>Habitat</u> Surveys (SWH)” are now being completed as a stand-alone field program, as well as in conjunction with other planned wildlife surveys. As described in the response to comment #31, we are not doing species-specific SWH surveys to confirm SWH, but are ground truthing the ecosites that guidance provided by the NDMNRF considers potential as “candidate” SWH to determine if the ecosite is actually “candidate” SWH. This ecosite confirmation exercise can be performed quite effectively in conjunction with the vegetation community surveys as they are essentially collecting the same ecosite classification data.

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
			Time constraints and difference in approach for various surveys may make monitoring for wildlife at the same time difficult.		<p>When wildlife field crews are out on various field programs (e.g., breeding birds, gray fox den surveys), they are using the walk to and from stations, plus their assessment of each survey station to collect incidental data on other wildlife species seen, sign seen, species heard, etc. For instance, if a birder is listening for calling birds and a moose walks out from the shoreline, or while setting up gray fox station we note an abundance of bear scat near blueberry bushes, this data will be collected.</p> <p>Incidental wildlife observation is a typical approach to this type of data collection. Trained and experienced field biologists have substantial observation skills which facilitates collection of incidental, data while completing targeted surveys.</p>
38			Can we add to the list of traditional use plants? If traditional use plants or SAR are found, what are the plans for conservation and/or mitigation?		<p>Data from Indigenous communities and peoples is always appreciated and considered equally important to the data we collect through western science. All areas of traditional use plants and SAR plants will be documented and considered in the EA. Our initial considerations would be avoidance of disturbance to traditional use and SAR plants as a means to conserve them and avoid contravening prohibitions set out in legislation.</p> <p>If impacts of the Project on traditional use and/or SAR plants cannot be avoided, then additional ways to mitigate impacts will be considered. With SAR plants, this will mean consultation with the MECP and fulfilling obligations set out in the <i>Endangered Species Act, 2007</i> (e.g., applying for a permit and abiding by conditions, as required). Mitigation measures to promote conservation of traditional use plants and SAR plants may include transplanting, seeding, or plantings after construction and during restoration activities.</p>

June 24, 2022

Comment #	Reference to Field Plan	Section	Comments (May 27, 2022)	Recommendation	Response (Hydro One – June 24, 2022)
					<p>We invite input from Indigenous communities to identify traditional use plants for consideration in the EA. If sensitive plant communities can be identified early on in the process, then there is a higher probability that the plants can be avoided by the Project development. We also invite Indigenous communities to provide input into ways to mitigate disturbance of traditional use plants.</p>

**4. Indigenous Community Comments:  
Comment Table – Waasigan Transmission  
Line Project – Metis Nation of Ontario  
(MNO) Review of the Aquatic and  
Terrestrial Field Work Plans for the  
Waasigan Transmission Line  
Environmental Assessment. June, 22,  
2022.**





Métis Nation of Ontario  
Lands, Resources and Consultations

June 22, 2022

Devi Shantilal  
Manager, Indigenous Relations  
Hydro One Networks, Inc.  
483 Bay St. (South Tower)  
8th Floor Reception  
Toronto, ON M5G 2P5

VIA ELECTRONIC MAIL: [devi.shantilal@hydroone.com](mailto:devi.shantilal@hydroone.com)

Dear Ms. Shantilal:

**RE: NWOMC and SNSMC Comments on the Waasigan Field Work Plans (Aquatic and Terrestrial)**

Please find attached a review of the Aquatic and Terrestrial Field Work Plans (the “Field Work Plans”) for the Waasigan Transmission Line Project (the “Project”). This review was conducted by MNP LLP (“MNP”) at the request of the Northwestern Ontario Métis Community (“NWOMC”) and the Superior North Shore Métis Community (“SNSMC”). MNP focused on how the Field Work Plans included Métis rights and interests and use of land and resources—which is set out in the Amended Terms of Reference for the environmental assessment as a component of the socioeconomic environment to be studied.

The attached review identifies several matters of serious concern for the NWOMC and SNSMC. While these Field Work Plans contemplate studies that are technical in nature, they will provide the foundation for subsequent study and analyses and will have direct consequences for how the Project environmental assessment will consider the rights and interests of our citizens.

The Field Work Plans as currently drafted do not indicate how the studies will collect the baseline data that is necessary to assess Project impacts to Métis rights and interests or use of land and resources. As a result, there is a strong likelihood that there will be material gaps or misalignments between any studies conducted according to these Field Work Plans and what is required for the assessment of potential Project impacts to Métis rights and interests.

The Field Work Plans contemplate Indigenous participation and the collection of information related to, for example, Indigenous Knowledge and traditional land use. They also provide for the study of components of the physical environment that are fundamental to Métis rights and interests. However, no data from the NWOMC and SNSMC has been collected or considered to date. Again, this creates real risk that the baseline data will be insufficient or inappropriate to assess Project impacts on our citizens. Further, the NWOMC and SNSMC do not currently have

an agreement with Hydro One Networks Inc. (“HONI”) in place to support the kind of work necessary to correct these deficiencies.

Another shortcoming of the Field Work Plans is that the proposed approach to data collection mischaracterizes Indigenous Knowledge as only a component of study, something to be “collected.” The proper application and consideration of Indigenous Knowledge further requires its application as a basis for understanding environmental components and conditions, including their significance to Métis rights and interests.

The NWOMC and SNSMC are aware that some components of the field work have already begun, and we have started receiving updates of studies completed to date. In fact, representatives from the NWOMC and SNSMC recently received a field work update which drew a concerning conclusion about barn swallow behaviour. This is just one minor example of why it is critical that representatives from the NWOMC and SNSMC and representatives from HONI meet to discuss how the Field Work Plans can better support the assessment and understanding of Project impacts to Métis rights and interests, and work toward resolving the matters of concern raised in this letter and in the attached review prior to the finalization of these Field Work Plans and prior to further field work being conducted.

Please contact Charlene Wagenaar, Consultation Advisor, Region 1 at [charlene@metisnation.org](mailto:charlene@metisnation.org) at your earliest convenience to arrange a meeting.

Sincerely,



Theresa Stenlund  
Regional Councillor for the Northwestern  
Ontario Métis Community & Chair of the  
Treaty #3/Lake of the Woods/Lac Seul/Rainy  
Lake and Rainy River Consultation Committee



Tim Sinclair  
Regional Councillor for the Superior North  
Shore Métis Community & Chair of the  
Lakehead/Nipigon/Michipicoten Traditional  
Territories Consultation Committee



c.c.:

Treaty #3/Lake of the Woods/Lac Seul/Rainy Lake and Rainy River Consultation Committee Members:

Marlene Davidson, President of Atikokan Métis Council  
Liz Boucha, President of Kenora Métis Council  
Janet Hipfner, President of Northwest Métis Council  
Brady Hupet, President of Sunset Country Metis Council  
Sandy Triskle, Captain of the Hunt, Region 1

Lakehead/Nipigon/Michipicoten Traditional Territories Consultation Committee Members:

William Gordon, President of Greenstone Métis Council  
Trent Desaulnier, President of North Shore Métis Council  
Wendy Houston, President of Thunder Bay Métis Council  
Phil McGuire, Captain of the Hunt, Region 2

MNO Lands, Resources and Consultations Staff:

Linda Norheim, Director  
Charlene Wagenaar, Consultation Advisor, Region 1  
Nicholas Richard, Consultation Assessment Advisor, Region 2

Hydro One Networks, Inc.:

Penny Favel, Vice President, Indigenous Relations  
Matthew Jackson, Director, Indigenous Relations  
Stephanie Ash, Waasigan Indigenous Engagement Coordinator  
Bruce Hopper, Waasigan Transmission Line Project Manager

May 17, 2022

Linda Norheim  
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**RE: Review of the Waasigan 2022 Field Work Plans for Aquatic and Terrestrial, 2022 Field Work Plans Notice, Positions, Field Schedule, and Work Summary**

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Dear Linda and Charlene,

As per our Contract of Services we have reviewed the Waasigan 2022 Field Work Plans and associated documentation (referenced above) for sufficiency in addressing the concerns of the Métis Nation of Ontario (“MNO”), in particular Region 1 and Region 2.

It is our understanding that the main objective of the field work is to collect and document sufficient baseline information to support the upcoming Environmental Assessment (“EA”) and an evaluation of potential project impacts. Our review focused on inclusion of the Métis Valued Component (“VCs”) of *Métis Rights/Interests and Use of Land and Resources* in the field work, opportunities for involvement, and any additional gaps or deficiencies of note.

Please see below for a summary of key comments for consideration; as well as more detailed review tables located in Appendix A – Review of the Waasigan Transmission Line Field Work Plan – Aquatics and Appendix B – Review of the Waasigan Transmission Line Field Work Plan - Terrestrial.

### **Field Work Plans**

Both field work plans omit the Métis specific Valued Component of *Métis Rights/Interests and Use of Land and Resources*. This is problematic as some indicators of change (e.g., increased physical disturbance, increased avoidance behaviors, changes to harvesting of culturally crucial species considering displacement of wildlife or reduction or change in vegetation) can be supported through the data collection during the field work and, therefore, should have been targeted as part of the identified surveys.

Region 1 and Region 2 have not been provided sufficient funding or have the capacity to conduct a parallel environmental assessment to evaluate the net effects on their Valued Component and will rely heavily on information collected by Hydro One, in conjunction with information collected from Métis harvesters and land users throughout the consultation/engagement process. This means that, where pathways exist, Golder Associates Ltd., must support collaborative data collection and partnership.

Further, within the field work plans, Indigenous knowledge is referred to as a supplementary aspect to the work being done. Instead, Indigenous knowledge should be thought of as a **framework** for assessment rather than a **component** of baseline data collection and assessment; whereby ecosystem level information, based in principles of sustainability and stewardship, are consistently applied to link the aspects of assessment together. For example, how water quality is connected to a network of other aspects including governance of resources through stewardship, wildlife sustainability, subsistence harvesting and overall ecosystem health. Indigenous knowledge is a foundation; a starting point from which all other knowledge flows and would contribute to the characterization of the existing aquatic and terrestrial conditions. Western science processes such as EAs seek to compartmentalize the environment into easily evaluated pieces (e.g., surface water, fish and fish habitat). While necessary for assessment, it can result in a lack of understanding of tangible connections between those environmental components and how the ecosystem functions on a broader level which could be accomplished through using an Indigenous knowledge based framework to structure the data collection overall.

Further, references to IK/TLU within the field work plans is also problematic as it consistently indicates that this information will be in the future/has been integrated. However, Region 1 and Region 2 have yet to finalize a satisfactory/new capacity funding agreement and the Regions require additional assurances from Hydro One prior to the execution of TKLUS data collection; therefore incorporation of IK/TLU as part of baseline conditions is unlikely in relation to Region 1 and Region 2.

Finally, moving forward with information collected during the field work program, information must be provided back to Region 1 and Region 2 in a timely manner to allow for collaborative discussion. This will ensure that the Regions have an oversight role in the process throughout. Additionally, Hydro One, Golder Associates Ltd., and Region 1 and Region 2 must work in an expedited manner (see below notes on Schedule) in order to allow for participation in the execution of the field work.

### **Notice**

This notice provides information on how to submit comments on the field work plans and notes that a summary of the findings will be provided after the surveys are complete. No timeline for this review has been given. As per the comments in Appendix A and Appendix B and above, all information, particularly in relation to Region 1 and Region 2 IK/TLU data must be confirmed with the Regions prior to integration into the EA to ensure a complete understanding. To facilitate this review, the information should be provided to Region 1 and Region 2 with sufficient time to allow for collaborative internal and external discussion (e.g., 45 – 60 days prior to EA integration).

### **Positions**

The positions listed are identified as employees of Golder Associates Ltd.. This is strictly a position which a Métis citizen can apply for and is not related to ongoing consultation/engagement with Region 1 or Region 2. Métis rights are held collectively and must be addressed collectively. Therefore it should be noted in discussions with Hydro One and/or Golder Associates Ltd. that should a Métis citizen be hired for one or more of the positions provided, it does not and cannot address impacts to the collective rights of the Métis and is not an economic mitigation measure.

### **Schedule and Summary**

Many of the surveys have already started, including Wildlife (May 2), Anuran [Frog and Toad Acoustic Monitoring] (May 1-15), with additional surveys beginning in late May. Organization of Region 1 and Region 2 participation must be expedited with Hydro One in order to ensure data can be gathered to support the assessment of the identified Métis Valued Component. This is particularly important as the Aquatics surveys target only 60 days duration and the Terrestrial only 105 days duration.



Overall, we hope that these comments can support the ongoing consultation/engagement between Region 1, Region 2 and Hydro One and facilitate a collaborative assessment process overall.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Conacher'.

Germaine Conacher

Partner, MNP, Indigenous Services  
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A handwritten signature in black ink, appearing to read 'Adena Vanderjagt'.

Adena Vanderjagt

Senior Manager, MNP, Indigenous Services  
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Appendix A – Review of the Waasigan Transmission Line Field Work Plan - Aquatics

#	Waasigan Transmission Line Field Work Plan – Aquatics Section	Details/Quotation	Region 1 and Region 2 Comment
1.	1.0 Introduction, Page 1	<p>“This document provides the field work plan proposed by Hydro One and Golder Associates Ltd., a member of WSP (Golder), to collect baseline data for surface water and aquatic ecology, support the alternative route evaluation for the selection of a preferred route, and ultimately to support the assessment of potential Project effects on fish and fish habitat and surface water criteria and indicators.”</p>	<p>This section specifies that the aquatics field work will support the assessment of potential Project effects on fish and fish habitat and surface water criteria and indicators. However, there is no mention of this field work support the assessment of potential Project effects on the identified Valued Component <i>Métis Rights/Interests and use of Lands and Resources</i>, criteria <i>Loss of Land/Change in Priority Rights or Harvesting/Sites</i>.</p> <p>As per Region 1 and Region 2 comments on the final Terms of Reference (Comment #8) field work should be conducted to collect specific data related to Métis rights and interests. This was directed as an item for further discussion with the Métis Nation of Ontario through the Regional Consultation Committees and Lands, Resource and Consultation Branch to identify the preferred method of data collection and discuss aspects of rights to be considered (e.g., Métis-specific Criteria supportive information).</p>
2.	1.1 Purpose, Page 5	<p>“The purpose of baseline field surveys is to gather data about the surface water, fish and fish habitat components of the environment to support the evaluation of route alternatives and completion of a comprehensive EA for the Project.”</p>	<p>See Comment #1</p>
3.	1.1 Purpose, Page 5	<p>“Overall, the surface water, fish and fish habitat baseline field surveys are designed to meet the following objectives:</p> <ul style="list-style-type: none"> <li>• Characterize existing aquatic conditions in the area of the Project; ...”</li> </ul>	<p>Indigenous knowledge is a basis; a starting point from which all other knowledge flows and would contribute to the characterization of the existing aquatic conditions.</p> <p>Indigenous knowledge provides a connection to the environment, holistically, and can provide insight into potentially overlooked interconnections.</p> <p>Western science processes such as Environmental Assessments seek to compartmentalize the environment into easily evaluated pieces (e.g., surface water, fish and fish habitat). While necessary for assessment, it can result in a lack of understanding of tangible connections between those environmental components and how the ecosystem functions on a broader level.</p>



#	Waasigan Transmission Line Field Work Plan – Aquatics Section	Details/Quotation	Region 1 and Region 2 Comment
			<p>In order to restore those connections, Indigenous knowledge should be thought of as a framework for assessment rather than a component of assessment; whereby ecosystem level information, based in principles of sustainability and stewardship, are consistently applied to link the aspects of assessment together. For example, how water quality is connected to a network of other aspects including governance of resources through stewardship, wildlife sustainability, subsistence harvesting and overall ecosystem health.</p> <p>This is a necessary step in decolonizing assessment methodology.</p>
4.	1.1 Purpose, Page 5	<p>“Overall, the surface water, fish and fish habitat baseline field surveys are designed to meet the following objectives:</p> <ul style="list-style-type: none"> <li>• ...</li> <li>• Incorporate Indigenous Knowledge/traditional land and resource use (IK/TLRU) as part of baseline conditions, where possible; ...”</li> </ul>	<p>See Comment #3.</p> <p>Additionally, please note that Region 1 and Region 2 have yet to finalize a satisfactory/new capacity funding agreement and requires additional assurances from Hydro One prior to the execution of TKLUS data collection; therefore incorporation of IK/TLU as part of baseline conditions is unlikely.</p>
5.	1.2 Study Area, Page 5-6	<p>“Preliminary local study areas (LSAs) are defined as areas outside of the preliminary Project footprint where measurable changes to the environment resulting from the proposed activities from any Project phase may be anticipated.”</p> <p>“For fish and fish habitat and surface water, the field surveys will focus on the preliminary Project footprint described above and the immediate upstream and downstream environment.”</p>	<p>This section indicates that the LSA is an area where measurable changes to the environment from the Project phases may be anticipated, but that the field surveys will focus only on the Project footprint.</p> <p>How can Project impacts be accurately categorized if no baseline conditions for the LSA are identified? The baseline field work must be expanded to include fish bearing waterbodies within the LSA.</p> <p>This will ensure an accurate baseline for species available, habitat, and distribution for assessment.</p>
6.	1.2 Study Area, Page 7	<p>“Golder will endeavour to survey 200 m, including 50 m upstream from the crossing and 150 m downstream from the crossing”</p>	<p>It appears from this passage that only water bodies impacted through direct crossings will be considered. This is inappropriate as waterbodies in proximity to the project footprint, particularly during construction, could be susceptible to increased avoidance behaviors of Métis harvesters accessing these waterbodies in the exercise of their rights.</p> <p>Hydro One must undertake further consultation with Region 1 and Region 2 to understand potential avoidance distances from the project footprint during construction, operation and</p>

#	Waasigan Transmission Line Field Work Plan – Aquatics Section	Details/Quotation	Region 1 and Region 2 Comment
			maintenance and ensure waterbodies within this avoidance zone are assessed.
7.	2.0 Baseline Characterization Schedule, Page 11	“Desktop analysis to support the alternative route evaluation started in fall 2020 and focused on 150 m alternative route corridors.”	No data from Region 1 or Region 2 has been included in the desktop analysis, to date, as the Regions have yet to finalize a satisfactory/new capacity funding agreement and requires additional assurances from Hydro One prior to the execution of TKLUS data collection.
8.	2.0 Baseline Characterization Schedule, Page 11	“IK/TLRU studies are being completed by Indigenous communities for the Project and IK/TLRU information will be used to support the baseline characterization in the EA as it is shared. These studies are expected to become available throughout the preparation of the EA, with varying timelines for different Indigenous communities. Hydro One will work with Indigenous communities to integrate their IK/TLRU information into the EA and into Project decisions, as it is received. Hydro One is also working with interested Indigenous communities to discuss the sharing of information ahead of planned field programs to inform the desktop analysis and alternative route evaluation.”	See Comment #3 and Comment #4
9.	4.0 Engagement, Page 13	“A summary of the findings of the 2022 surveys will be included in the documentation of the EA. As well, these findings will be shared through Community Open House events and community meetings planned to support the EA, as identified in Section 10.0 of the Amended ToR.”	A summary of the findings of the 2022 surveys must be shared with Regions 1 and 2 in advance of integration into the EA.
10.	4.1 Indigenous Participation, Page 13	Hydro One believes that the Project will benefit greatly with the active engagement of Indigenous communities since they hold IK/TLRU information for the area. Section 4.2.3.6 of the Amended ToR provides a detailed description on how Indigenous knowledge will be obtained and incorporated into the Project.”	This section outlines generic Indigenous participation; however, based on the existing relationship with Hydro One, Region 1 and Region 2 require commitment that Indigenous participation means participation of Region 1 and Region 2 Métis field crews.
11.	4.1 Indigenous Participation, Page 13	<ul style="list-style-type: none"> <li>• “Data collection will include an opportunistic shoreline survey with key questions to capture information regarding fish and fish habitats from local fisherman and Indigenous communities regarding Indigenous knowledge, value of the fishery, key fish and other aquatic species, and issues relating to water and fish from existing transmission lines in the area;</li> <li>• Inclusion of Indigenous names of species (i.e., for plants, wildlife, and fish) and waterbodies in the EA;</li> <li>• Real-time mapping, as practicable; and ...”</li> </ul>	Any data collected from Métis field crews must be provided back to Region 1 and Region 2 for confirmation prior to integration into the EA to ensure this information is properly characterized and not subject to terms of an Information Sharing Agreement.

#	Waasigan Transmission Line Field Work Plan – Aquatics Section	Details/Quotation	Region 1 and Region 2 Comment
12.	4.1 Indigenous Participation, Page 14	“Indigenous knowledge related to wildlife, vegetation, fish and fish habitat and surface water resources will be highlighted and incorporated in the baseline studies and effects assessments, where it is shared by Indigenous communities for inclusion. Indigenous Knowledge may be shared through a variety of sources, including from Indigenous field crew members, IK/TLRU studies completed by Indigenous communities and/or through engagement with Indigenous communities.”	See Comment #1
13.	5.1 Purpose, Page 15	“The objective of the fish and fish habitat field survey for the Project is to characterize the existing fish habitat and fish communities, including Species at Risk (SAR) and Species of Conservation Concern (SOCC) fish, within the preliminary Project footprint of each alternative route and the immediate downstream environment to support the EA for the Project.”	There is no objective listed with regards to characterizing fish and fish habitat of importance to Métis harvesters in the exercise of their rights. This illustrates a fundamental disconnect between the field program and the assessment of potential impacts of the Project on Métis rights. Without this necessary information and necessary interrelation supported by Indigenous knowledge, the EA will not facilitate the assessment of Project-related effects on Métis rights.
14.	5.2 Desktop Analysis and Field Planning, Page 15	“Existing literature and digital data provided by Hydro One, available in-house at Golder, and obtained through published reports and grey literature, as well as IK/TLRU studies received from Indigenous communities and the results of the 2020 aerial reconnaissance, will be reviewed and compiled to support the fish and fish habitat baseline characterization.”	See Comment #7
15.	5.2 Desktop Analysis and Field Planning, Page 15	“Much of this data compilation and review is currently being completed to support the alternative route evaluation process, including the preparation of a detailed waterbody crossing list and survey site selection. In addition, a list of fish species documented in each tertiary watershed crossed by the alternative routes will be collated.”	See Comment #6
16.	5.2 Desktop Analysis and Field Planning, Page 15	“The desktop analysis includes screening to identify the fish species, including fish of Indigenous significance (e.g., fish for subsistence).”	As Region 1 and Region 2 have not compiled or provided Hydro One with a list of fish species of significance due to capacity limitations, this will not be included in the current desktop analysis.  How will species of importance to Region 1 and Region 2 be added to the assessment at a later date when this information is available?
17.	5.2 Desktop Analysis and Field Planning, Page 16	“A SAR screening will also be completed as part of the desktop analysis to identify SAR with moderate to high potential to occur in the LSA based on range overlap,	Similar to this, a screening must also be completed for species of significance to Region 1 and Region 2 with moderate to high potential to occur in the LSA. Once

Waasigan Transmission Line Field Work Plan – Aquatics Section		Details/Quotation	Region 1 and Region 2 Comment
		documented occurrences, critical habitat mapping and presence of suitable habitat determined from aerial imagery and mapping (e.g., DFO Aquatic Species at Risk mapping)."	completed, this information must be verified with Region 1 and Region 2 prior to inclusion in the EA.
18.	5.2.1 Site Selection, Page 16	"The field survey will target a subset of waterbodies that are crossed by the preliminary Project footprint for each alternative route (rather than the full list of crossing locations). Waterbodies that are adjacent to the preliminary Project footprint for each alternative route, but not crossed by them, will not be surveyed as temporary workspaces included in the Project design will incorporate a 30 m setback between the preferred route and any adjacent waterbodies where feasible, and these waterbodies will not be directly impacted."	See Comment #6
19.	5.2.1 Site Selection, Page 17	<p>"Based on the desktop analysis and aerial reconnaissance, there are approximately 993 waterbody crossings along the transmission line ROW for the alternative routes. Of these, 772 are located in sections where there is more than one route alternative, whereas the remaining 221 waterbody crossings are located in the sections where there are no alternative routes."</p> <p>"Of the 772 waterbody crossings, background fish and/or fish habitat data are available for 160 of the waterbody crossings along the alternative routes. Therefore, 612 waterbody crossings (i.e., 79%) have no known historical fish or fish habitat information. These waterbodies will be the focus of the field surveys."</p>	All 993 locations must be provided to Region 1 and Region 2 on map sheets for review to ensure any key locales of importance to Region 1 and Region 2 can be identified prior to the execution of the field program.
20.	5.2.1 Site Selection, Page 18	<p>"Therefore, survey sites will be selected at waterbodies where:</p> <ul style="list-style-type: none"> <li>• Temporary (e.g., one time ford, temporary culvert) or permanent (e.g., installing a permanent culvert) works would be proposed below the high watermark;</li> <li>• Permanent crossing structures would be proposed to be installed above the high watermark; and</li> <li>• Removal of critical riparian vegetation would be proposed."</li> </ul>	<p>In addition to the specified criteria, survey sites must also be selected at waterbodies where destruction or alteration of fish habitat may occur, as is loosely referenced (regulatory approvals from DFO).</p> <p>Please add this additional criterion to the listing to ensure the field work plan is explicit.</p>
21.	5.2.2 Access and Field Maps, Page 20	"The location of waterbody crossing locations to be surveyed will be provided in a water crossing list and a map book of the waterbodies on the crossing list will be created once the full preliminary Project footprint is available (i.e., after the access roads and supporting infrastructure is designed)."	See Comment #19

#	Waasigan Transmission Line Field Work Plan – Aquatics Section	Details/Quotation	Region 1 and Region 2 Comment
22.	5.3.1 Fish Habitat Assessment, Page 20	“The length of the section surveyed will depend on the size of the waterbody. The field crew will endeavour to survey 200 m of each waterbody, including 50 m upstream from the crossing and 150 m downstream from the crossing on watercourses and 200 m along the shoreline of lakes/ponds. If 200 m cannot be surveyed due to site logistics (e.g., dense forest, land access issues), the field crew will endeavor to survey as much of the site as is safely accessible, up to 200 m.”	Please confirm whether overflights will be completed for survey sites to confirm any major obstructions to fish migration, record general habitat conditions and any other significant constraints that might be present.  This section only specifies that “If a helicopter is used...” which implies this will not be a typical undertaking.
23.	5.3.1 Fish Habitat Assessment, Page 22	“Basic in-situ water quality parameters (conductivity, pH, temperature, and dissolved oxygen) will be measured using a multi-parameter water quality meter. A visual estimate of water clarity will also be completed.”	Will turbidity or Total Dissolved Solids (TDS) be assessed beyond a visual estimate of water clarity?
24.	5.3.1 Fish Habitat Assessment, Page 22	“Type of riparian vegetation present, average height, and if any critical riparian vegetation cover is present will be visually assessed.”	Will riparian vegetation supplement future vegetation habitat and/or species field work?
25.	5.3.1 Fish Habitat Assessment, Page 23	“Large-bodied fish that are targeted by anglers and Indigenous communities for subsistence (e.g., species from the Acipenseridae and Salmonidae families) are considered sport fish.”	While fish are harvested in the exercise of Métis rights for subsistence purposes, this statement minimizes the overall interconnection of fishing with other aspects of Métis rights such as governance (e.g., ongoing stewardship of species of importance and waterbodies), cultural (e.g., transmission of knowledge), etc.  Further, fish targeted by Métis harvesters in the exercise of their rights are not limited to sport fish.  Both must be updated and reflected in the field work plan as well in future iterations of the EA.
26.	5.6 Data Analysis and Reporting, Page 27	“The report will be used to characterize existing conditions for fish and fish habitat as part of the EA and to support future permitting requirements for the Project. As part of the EA reporting and to provide an estimate of the overall habitat quantity in square metres of each criteria species in the preliminary Project footprint, the estimated bank-full width at each waterbody crossing will be multiplied by a width of the proposed disturbance.”	See Comment #6  As this report will be used to characterize the existing conditions, there must be an understanding of avoidance behaviors influenced by construction, operation and maintenance and how this will influence Métis use of waterbodies in proximity to the project footprint.
27.	6.2 Desktop Analysis and Field Planning, Page 28	“Review and analysis of publicly available background data from the following sources: ...  Indigenous Knowledge received through engagement with Indigenous communities, including IK/TLRU studies.”	See Comment #3 and #4

## Appendix B – Review of the Waasigan Transmission Line Field Work Plan - Terrestrial

Waasigan Transmission Line Field Work Plan – Terrestrial		Details/Quotation	Region 1 and Region 2 Comment
1.	1.0 Introduction, Page 1	<p>“This document provides the field work plan proposed by Hydro One and Golder Associates Ltd. a member of WSP (Golder), to collect baseline data for the assessment of wildlife and wildlife habitat, vegetation and wetlands to support the alternative route evaluation for the selection of a preferred route, and ultimately to support the assessment of potential project effects.”</p>	<p>As noted in Appendix A in relation to Aquatics, this section specifies that the terrestrial field work will support the assessment of potential Project effects on wildlife and wildlife habitat, vegetation and wetlands. However, there is no mention of how this field work will support the assessment of potential Project effects on the identified Valued Component <i>Métis Rights/Interests and use of Lands and Resources</i>, criteria <i>Loss of Land/Change in Priority Rights</i> or <i>Harvesting/Sites</i>.</p> <p>As per Region 1 and Region 2 comments on the final Terms of Reference (Comment #8) field work should be conducted to collect specific data related to Métis rights and interests. This was directed as an item for further discussion with the Métis Nation of Ontario through the Regional Consultation Committees and Lands, Resource and Consultation Branch to identify the preferred method of data collection and discuss aspects of rights to be considered (e.g., Métis-specific Criteria supportive information).</p>
2.	1.1 Purpose, Page 5	<p>“The purpose of baseline field surveys is to gather data about the wildlife and wildlife habitat, vegetation and wetlands components of the environment to support the evaluation of route alternatives and completion of a comprehensive EA for the Project.”</p>	See Comment #1
3.	1.1 Purpose, Page 5	<p>“Overall, the wildlife and wildlife habitat, vegetation and wetlands baseline field surveys are designed to meet the following objectives:</p> <ul style="list-style-type: none"> <li>• Characterize existing terrestrial conditions in the area of the Project; ...”</li> </ul>	As this section is largely identical, see Comment #3 of Appendix A
4.	1.1 Purpose, Page 5	<p>“Overall, the wildlife and wildlife habitat, vegetation and wetlands baseline field surveys are designed to meet the following objectives:</p> <ul style="list-style-type: none"> <li>• ...</li> <li>• Incorporate Indigenous Knowledge/traditional land and resource use (IK/TLRU) as part of baseline conditions, where possible; ...”</li> </ul>	As this section is largely identical, see Comment #3 and Comment #4 of Appendix A
5.	1.2 Study Areas, Page 7	<p>“The LSA is designed to capture the area where direct and immediate indirect effects from the Project on soils, vegetation and wildlife, will occur at the local scale. Direct effects include mortality to individuals from Project-related hazards (e.g., towers, transmission lines and</p>	This section does not refer to the Valued Component of Métis Rights/Interests and Use of Lands and Resources when illustrating direct and indirect effects. Please confirm that baseline information related to Métis indicators related to



#	Waasigan Transmission Line Field Work Plan – Terrestrial	Details/Quotation	Region 1 and Region 2 Comment
		vehicles), and physical changes to terrain, soils, vegetation and wildlife habitat from construction, operation and maintenance of the Project. Indirect effects from the Project may extend beyond the physical footprint, such as air and dust emissions that can alter soil and water chemistry and plant communities. Sensory disturbances (e.g., noise, lights, and smells) from the Project can also influence wildlife movement and behaviour. Some animals may perceive the presence of human activity as a decrease in habitat quality and avoid the area. Therefore, sensory disturbance can reduce habitat availability for wildlife even where vegetation remains structurally and functionally intact.”	wildlife, vegetation and wetlands will also be collected during the field surveys.
6.	1.2 Study Areas, Page 7	“The 1 km buffer of the preliminary Project footprint for each alternative route has been proposed for the LSA to capture the area where immediate indirect effects of the Project on wildlife and wildlife habitat, vegetation and wetlands are likely based on available evidence from literature. For example, effects of dust on vegetation have been detected within 50 m of roads, with some lesser effects outward to 500 m (Meininger and Spatt 1988; Walker and Everett 1987).”	Please describe any Indigenous knowledge used in the definition of the 1 km buffer LSA.
7.	2.0 Baseline Characterization Schedule, Page 12	“Desktop analysis to support the alternative route evaluation started in fall 2020 and focused on the 150 m alternative route corridors.”	As this section is largely identical, see Comment #7 of Appendix A
8.	2.0 Baseline Characterization Schedule, Page 12	“IK/TLRU studies are being completed by Indigenous communities for the Project and IK/TLRU information will be used to support the baseline characterization in the EA, as it is shared. These studies are expected to become available throughout the preparation of the EA, with varying timelines for different Indigenous communities. Hydro One will work with Indigenous communities to integrate their IK/TLRU information into the EA and into Project decisions, as it is received. Hydro One is also working with interested Indigenous communities to discuss the sharing of information ahead of planned field programs to inform the desktop analysis and alternative route evaluation.”	As this section is largely identical, see Comment #3 and Comment #4 of Appendix A
9.	3.0 Health, Safety and Environment, Page 13	“Field surveys will be completed with a minimum of two trained environmental specialists (e.g., biologists), and at least one Indigenous field crew member, where possible.”	The limiting language within this section is concerning as there is interest from Region 1 and Region 2 to participate, and likely interest of other Indigenous nations as well. One Indigenous field crew member is insufficient and the qualifier of ‘where possible’ must be explained.

#	Waasigan Transmission Line Field Work Plan – Terrestrial	Details/Quotation	Region 1 and Region 2 Comment
10.	4.0 Engagement, Page 14	“A summary of the findings of the 2022 surveys will be included in the documentation of the EA. As well, these findings will be shared through Community Open House events and community meetings planned to support the EA, as identified in Section 10.0 of the Amended ToR.”	As this section is largely identical, see Comment #9 of Appendix A
11.	4.1 Indigenous Participation, Page 14	“Incorporation of Indigenous participation and other considerations in the field work will include the following:...”	This section includes Indigenous field crews, plural, but within Section 3.0 it specifies that field surveys will be completed with at least one Indigenous field crew member, where possible. Please explicitly describe the make-up of the field crew and anticipated Indigenous involvement.
12.	4.1 Indigenous Participation, Page 14	“Hydro One believes that the Project will benefit greatly with the active engagement of Indigenous communities since they hold IK/TLRU information for the area. Section 4.2.3.6 of the Amended ToR provides a detailed description on how Indigenous knowledge will be obtained and incorporated into the Project.”	As this section is largely identical, see Comment #10 of Appendix A
13.	4.1 Indigenous Participation, Page 14	“Indigenous Knowledge related to wildlife, vegetation, fish and fish habitat and surface water resources will be highlighted and incorporated in the baseline studies and effects assessments, where it is shared by Indigenous communities for inclusion. Indigenous Knowledge may be shared through a variety of sources, including from Indigenous field crew members, IK/TLRU studies completed by Indigenous communities and/or through engagement with Indigenous communities.”	As this section is largely identical, see Comment #11 of Appendix A
14.	5.1 Purpose, Page 15	“The purpose of the wildlife and wildlife habitat field surveys for the Project is to characterize the existing environment for wildlife for each alternative route to support the alternative route evaluation and EA for the Project. In particular, the main objective of the field work is to gather sufficient information to develop a comprehensive understanding of the existing wildlife and habitat prior to any potential influence from Project construction or operation (i.e., baseline conditions).”	There is no purpose identified that is linked to data collection supporting the identified Valued Component <i>Métis Rights/Interests and use of Lands and Resources</i> , criteria <i>Loss of Land/Change in Priority Rights or Harvesting/Sites</i> . This illustrates a fundamental disconnect between the field program and the assessment of potential impacts of the Project on Métis rights. Without this necessary information and necessary interrelation supported by Indigenous knowledge, the EA will not facilitate the assessment of Project-related effects on Métis rights.
15.	5.1 Purpose, Page 15	“Secondary source data acquired and data collected in the field will be used to characterize the existing environment as it relates to wildlife by describing the presence, distribution, and relative abundance (where possible) of taxa with a particular focus on wildlife species at risk (SAR), as well as to	In addition to a focus on wildlife SAR, culturally critical species of importance to Region 1 and Region 2 must also be a focus of the field surveys to ensure sufficient data is collected to assess Project-related effects on Métis rights.

Waasigan Transmission Line Field Work Plan – Terrestrial		Details/Quotation	Region 1 and Region 2 Comment
		characterize and quantify wildlife habitat within the LSA, with focus on SAR habitat and SWH.”	As Region 1 and Region 2 are not responsible for, or provided capacity to complete, a parallel assessment, the Regions will rely on data collected by Hydro One during the field work in order to facilitate this assessment.  While it is noted within this section (page 17) that data regarding species of concern to Indigenous communities will be gathered, more information is required on how this will be completed.
16.	5.2 Desktop Analysis and Field Planning, Page 17	“Existing literature and digital data provided by Hydro One, available in-house at Golder, and obtained through publicly available databases, published reports and grey literature, as well as IK/TLRU studies received from Indigenous communities, are being reviewed and compiled to determine which data are available to support the requirements for the wildlife baseline.”	As this section is largely identical, please see Comment #7 of Appendix A
17.	5.2 Desktop Analysis and Field Planning, Page 18	“Results from the fall 2020 aerial reconnaissance and mine site survey (Golder 2021b) are also being reviewed, compiled, and analyzed, and mapping refined.”	As Region 1 and Region 2 have not participated in aerial reconnaissance or mine site survey – nor has Region 1 or Region 2 provided input to ensure the methodology is responsive to the identified Valued Component <i>Métis Rights/Interests and use of Lands and Resources</i> , criteria <i>Loss of Land/Change in Priority Rights or Harvesting/Sites</i> , there is a gap in the existing information being accessed.
18.	5.2.2 Access and Field Maps, Page 18	“A map book of proposed survey locations will be created once the preliminary Project footprint for each alternative route is available (i.e., after the access roads and supporting infrastructure are designed). As such, maps of proposed survey locations are not currently available to accompany this field work plan.”	Upon availability, the map book of proposed survey locations must be provided to Region 1 and Region 2 for review and confirmation.
19.	5.10 Candidate Significant Wildlife Habitat, Page 37	“Criteria schedules have not been prepared for the ecoregions that the Project overlaps. In the absence of criteria schedules for these ecoregions, the draft criteria schedules for Ecoregion 3W, as well as the Significant Wildlife Habitat Technical Guide (MNR 2000), have been consulted.”	As criteria schedules have not been prepared for the ecoregions the Project overlaps, Region 1 and Region 2 require participation in the field program planned to determine if the candidate SWH screened at a desktop level can be confirmed as candidate SWH.
20.	5.10 Candidate Significant Wildlife Habitat, Page 37	“Of those candidate SWH types that had greater than 30 occurrences, a random selection of approximately 2% of the total number of occurrences of each SWH type across all route alternatives will be selected once the alternative route footprints become available. Given the objective of the field survey to ground-truth the desktop screening of the ecosite	Region 1 and Region 2 require review of the 2% randomly selected occurrences to ensure coverage of important areas to Métis harvesters and land users. This slightly modified approach is allowed for to ensure spatial coverage across the routes and can also be applied to ensure coverage of areas of known importance to the Métis.

#	Waasigan Transmission Line Field Work Plan – Terrestrial	Details/Quotation	Region 1 and Region 2 Comment
		types in the SWH criteria reports (MNR 2017a), not to confirm the sites are significant habitat, a random selection of sites allows for an unbiased approach to ground-truthing. However, sites will be reviewed and slightly modified to have spatial coverage across the routes (see Appendix F).”	
21.	5.14 General Wildlife Surveys and Habitat Assessments, Page 44	“General wildlife surveys and habitat assessment will be conducted concurrent with the other field investigations. These surveys will gather data for various species, including species groups and SAR not specifically targeted through the surveys described above.”	Region 1 and Region 2 must have input into the general wildlife surveys to ensure that species of importance to Métis harvesters and land users are targeted, particularly mammals and avifauna typically harvested in the exercise of Métis rights.  If a particular species of importance is identified, additional survey work may be warranted as incidental sightings during other survey work may not be sufficient to collect data to assess change to Métis indicators.
22.	6.1 Purpose, Page 49	“The purpose of the vegetation and wetlands field survey for the Project is to characterize the existing environment for vegetation and wetlands to support the EA for the Project. Baseline characterization will consist of combining and summarizing existing available information (i.e., desktop analysis, imagery interpretation and FRI classification) with data gathered from field surveys within the LSA.”	There is no purpose identified that is linked to data collection supporting the identified Valued Component <i>Métis Rights/Interests and use of Lands and Resources</i> , criteria <i>Loss of Land/Change in Priority Rights or Harvesting/Sites</i> . This illustrates a fundamental disconnect between the field program and the assessment of potential impacts of the Project on Métis rights. Without this necessary information and necessary interrelation supported by Indigenous knowledge, the EA will not facilitate the assessment of Project-related effects on Métis rights.
23.	6.1 Purpose, Page 49	“Vegetation community mapping is required to identify potential habitat for SAR, rare plants and rare vegetation communities, and traditionally used plants identified through IK/TLRU studies received from Indigenous communities and communicated through engagement with Indigenous communities...”	No data from Region 1 or Region 2 has been included in the desktop analysis, to date, as Region 1 and Region 2 have yet to finalize a satisfactory/new capacity funding agreement and requires additional assurances from Hydro One prior to the execution of TKLUS data collection.
24.	6.2 Desktop Analysis and Field Planning, Page 49	“Existing literature and digital data provided by Hydro One, available in-house at Golder, and obtained through published reports and grey literature, as well as IK/TLRU studies received from Indigenous communities, will be reviewed and compiled to determine which data are available to support the requirements for the vegetation and wetlands baseline.”	See Comment #23
25.	6.2.1 Site Selection, Page 50	The following variables will be factored into survey location selection: <ul style="list-style-type: none"> <li>• Size and distribution of each plant community type;</li> <li>• Unique plant communities;</li> </ul>	Plants of importance to Region 1 and Region 2 must also be a variable that is factored into survey location selection.

#	Waasigan Transmission Line Field Work Plan – Terrestrial	Details/Quotation	Region 1 and Region 2 Comment
		<ul style="list-style-type: none"> <li>• Surveys for rare plants and critical landform/vegetation associations; and</li> <li>• Access constraints.</li> </ul>	
26.	6.2.2 Access and Field Maps, Page 50	<p>“A map book of proposed survey locations will be created once the preliminary Project footprint for each alternative route is available (i.e., after the access roads and supporting infrastructure are designed). As such, maps of proposed survey locations are not currently available to accompany this field work plan.”</p>	See Comment #18
27.	6.3.2 Botanical Survey, Page 51	<p>Traditional use plants include berries, edible mushrooms, Labrador tea (<i>Rhododendron groenlandicum</i>), paper birch (<i>Betula papyrifera</i>), sugar maple (<i>Acer saccharum</i>), white cedar (<i>Thuja occidentalis</i>), and various grasses including wild rice (<i>Zizania palustris</i>) and sweet grass (<i>Hierochloe odorata</i>). Additional traditional use plants and species of importance to Indigenous communities, as identified through IK/TLRU studies and community engagement, will be included.</p>	<p>As Region 1 and Region 2 have yet to finalize a satisfactory/new capacity funding agreement and require additional assurances from Hydro One prior to the execution of TKLUS data collection, any listings of traditional use plants must be verified with Métis harvesters and land users through the respective RCCs to ensure all relevant species are noted. Further, should additional species be identified through the execution of the TKLUS, provisions for additional botanical surveys must be made.</p>



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