Orléans Area Reinforcement Environmental Assessment

Final Environmental Study Report

April 2, 2026

Prepared by:

Hydro One Networks Inc.

Environmental Services

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Toronto, ON M5G 2P5

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Executive Summary

The Orléans area of Ottawa is experiencing high electricity load growth expected to continue over the next several years. In 2022, the Greater Ottawa Regional Planning Technical Working Group recommended that to keep up with new growth, additional load needs to be supplied from a new 230 kilovolt (kV) supply extending from Hawthorne Transformer Station (TS) to Orléans TS.

Hydro One Networks Inc. (Hydro One) has prepared this final Environmental Study Report (ESR) to reinforce the transmission system in the Orléans area of Ottawa (the Project). Currently, there is one 115 kV circuit and one 230 kV circuit running between Hawthorne TS and Orléans TS. Within the same transmission corridor, there are two other 230 kV circuits traveling to other locations. The Project involves:

- Upgrading the existing 115 kV transmission line extending from just east of Highway 417 near Hawthorne TS to Orléans TS to 230kV – no modifications to this line are required to upgrade to 230 kV as it already has the appropriately sized conductor and insulators;
- Installing a new 115 kV transmission line from just east of Highway 417 to Orléans TS in the centre of the existing transmission corridor;
- Installing a new 230 kV transmission line, approximately 900 metres (m) in length, from Hawthorne TS to just east of Highway 417 to connect to the circuit being upgraded to 230 kV; and
- Modifying equipment within the existing transformer stations to accommodate the increase in capacity, including installation of a new 230 kV circuit breaker and new battery buildings at Hawthorne TS, and replacement of an existing 115 kV autotransformer with a 230 kV autotransformer at Orléans TS.

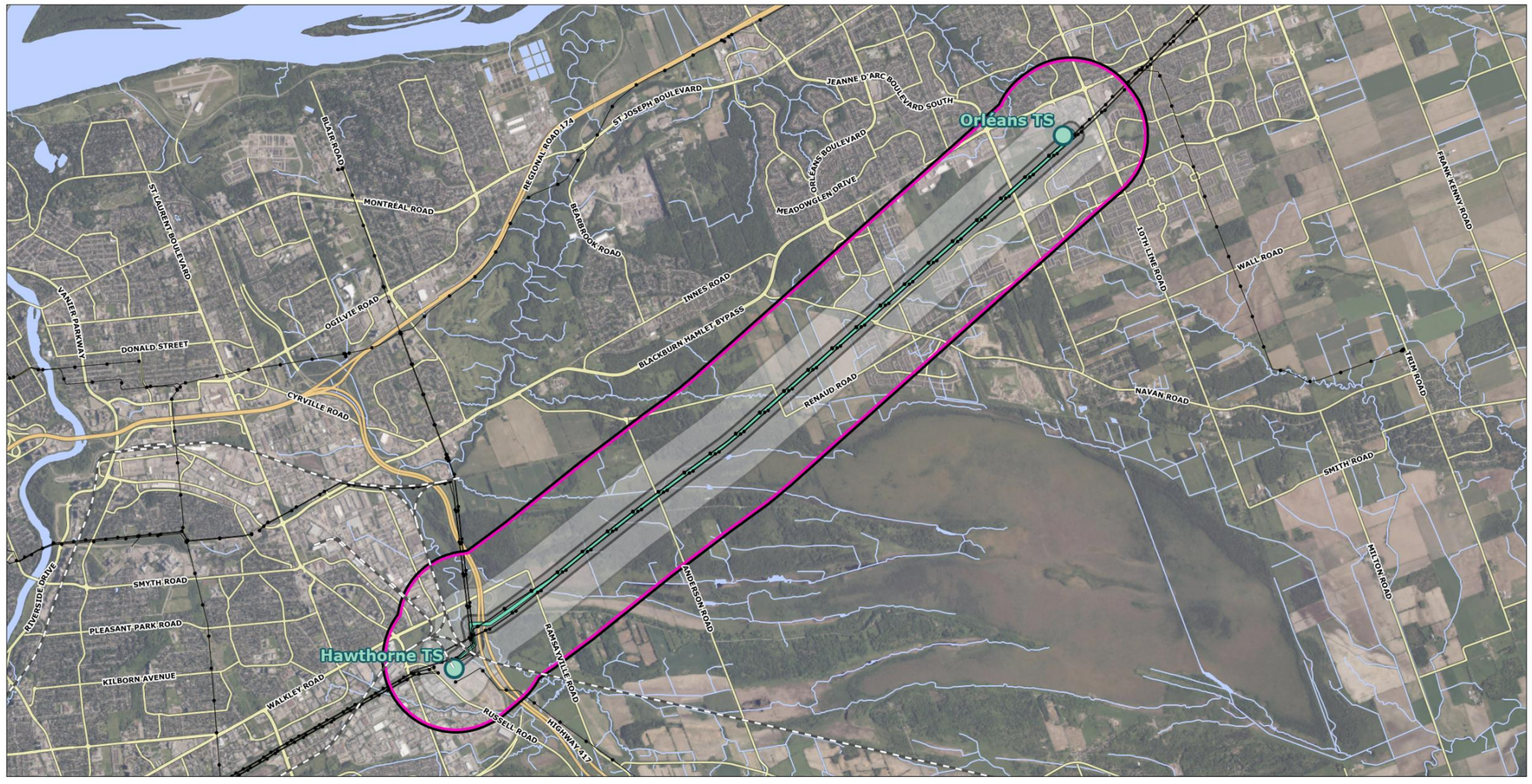
The Project has been subject to the Class Environmental Assessment for Transmission Facilities (Class EA for TF; Hydro One, February 2024), an approved planning process under the *Environmental Assessment Act* (*EA Act*). The Class EA process is designed for proponents to characterize the existing environment, assess potential environmental effects and identify mitigation, identify and evaluate alternatives, conduct consultation and document study findings. This planning process applies to transmission infrastructure projects that are carried out routinely and have predictable environmental effects that can be readily managed.

The Project crosses about six kilometres (km) of federal land. This Class EA is focused on provincially regulated lands, as the federally owned lands are the subject of a separate regulatory process.

The preferred route for the new transmission line (**Figure E-1**) is in the centre of an existing four-circuit transmission corridor for most of its length between Hawthorne TS and Orléans TS. Use of the existing transmission corridor minimizes effects on the natural and socio-economic environment, in addition to considerable technical and cost benefits.

Three study areas (Local Study Area, Project Study Area, and Regional Study Area) were established to assess potential effects associated with the Project. These three study areas are shown in **Figure E-1.**

Figure E-1: Preferred Route and Study Areas



ORLÉANS AREA REINFORCEMENT PROJECT

Transformer Station (TS)
Regional Study Area (1 km)
Local Study Area (500 m)
Project Study Area (120 m)
Proposed Transmission Line
Existing Transmission Line
Highway
Major Road
Railway
Waterbody (MNR, 2024)
Watercourse (MNR, 2024)

PREFERRED ROUTE AND STUDY AREAS
FIGURE E-1

MAP DRAWING INFORMATION:
DATA PROVIDED BY HYDRO ONE NETWORKS INC, MNRF, DILLON CONSULTING LTD.

MAP CREATED BY: AEE
MAP CHECKED BY: IQ
MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

SCALE 1:50,000
0 0.5 1 2 km
PROJECT: 24-8296 STATUS: DRAFT DATE: 2025-09-29

FILE LOCATION: K:\2024\248296\Product\Client\ESR\ESR\ESR.aprx

Since January 2024, Hydro One has consulted with municipal, provincial, and federal government officials and agencies; Indigenous communities; and potentially affected/ interested persons, businesses, and interest groups. The consultation process included:

- The development of a Project website;
- An in-person Community Open House (COH);
- In-person and virtual meetings with Indigenous communities, government officials, and potentially affected/interested persons;
- Correspondence with Rightsholders and stakeholders; and
- Dedicated Community Relations and Indigenous Relations representatives.

Potential environmental effects resulting from the Project have been identified, and avoidance and/or mitigation measures have been proposed accordingly. Based on information collected to date, no significant net adverse environmental effects have been identified.

A project level cumulative effects assessment was completed for the Project in accordance with the requirements of the Class EA for Transmission Facilities. The cumulative effects assessment determined there are no areas of environmental concern that will result in a significant cumulative effect. It was determined that the mitigation measures outlined for the Project remain effective after considering cumulative effects from other projects and activities.

The Notice of Completion of draft ESR was distributed on October 15, 2025, to Indigenous communities consulted, municipal, provincial and federal government officials and agencies, affected landowners, potentially affected and interested persons, and interest groups presented in **Section 3.0** (see contact list in **Appendix A-1**). The Notice was published in the Orléans Star on October 23, and November 5, 2025 (see notification letter and newspaper ad in **Appendix A-2**).

Following the release of the Notice of Completion of the draft ESR, Hydro One provided a 30-day comment period, from October 20, 2025, to November 19, 2025, to allow sufficient time for review and comment on the draft ESR. Additionally, Hydro One provided an extension to the draft ESR comment period for AOO and AOPFN. Written comments or questions regarding the draft ESR were submitted to:

> Jeff Hankin, Environmental Planner, Hydro One Networks Inc.
> 483 Bay Street, North Tower, 14th Floor, Toronto, ON, M5G 2P5
> Phone: 1-877-345-6799 (Community Relations hotline)
> Email: Community.Relations@HydroOne.com

The draft ESR was available electronically on the Hydro One Orléans Area Reinforcement Project web page: http://hydroone.com/orleans. Hard copies were provided upon request by contacting Hydro One via the contact details provided above. Two members of the public requested hard copies of the draft ESR, and they were delivered via courier the week of October 27, 2025.

Comments and concerns received during the draft ESR review period have been responded to and documented in the final ESR as required by the Class EA process. Hydro One has made best efforts to respond and address questions and/or issues raised by concerned parties during the public comment period. The ESR has been finalized for the proposed Project in accordance with the Class EA and has been filed with the MECP. The Project is considered approved and may proceed as outlined in the ESR.

The *EA Act* has provisions that allow interested parties to request the Ministry of the Environment, Conservation and Parks (MECP) order a higher level of study (i.e., requiring comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g., require further studies). Requests may only be made on the grounds that the requested order may prevent, mitigate, or remedy adverse effects on constitutionally protected Aboriginal and Treaty rights. This process is referred to as a Section 16 Order request and must be sent in writing or email to the MECP, copying Hydro One.

No Section 16 Order requests were received by the MECP or Hydro One relating to the Project, as such, the Project will proceed as outlined in this ESR.

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Acronyms and Abbreviations

Acronym or Abbreviation	Definition
AA	Archaeological Assessment
ANSI	Area of Natural and Scientific Interest
AOO	Algonquins of Ontario
AOPFN	Algonquins of Pikwakanagan First Nation
AQHI	Air Quality Health Index
CEA	Cumulative Effects Assessment
CFA	Capacity Funding Agreement
Class EA	Class Environmental Assessment
Class EA for TF	Class Environmental Assessment for Transmission Facilities
CLI	Canada Land Inventory
cm	Centimetres
CN Rail	Canadian National Railway
CO	Carbon Monoxide
COH	Community Open House
DFO	Fisheries and Oceans Canada
Dillon	Dillon Consulting Limited
EA	Environmental Assessment
EA Act	*Environmental Assessment Act*
EAB	Environmental Assessment Branch
EASR	Environmental Activity and Sector Registry
ECCC	Environment and Climate Change Canada
ELC	Ecological Land Classification
EMF	Electric and Magnetic Fields
ENDM	Ministry of Energy, Northern Development and Mines
EPC	Engineering, Procurement and Construction
ESA	*Endangered Species Act, 2007*
ESC	Erosion and Sediment Control
ESR	Environmental Study Report
FLUDTA	Federal Land Use, Design, and Transaction Approval
GPS	Global Positioning System
Hydro One	Hydro One Networks Inc.

Acronym or Abbreviation	Definition
HVA	Highly Vulnerable Aquifer
IP	Integrated Production
IPZ	Intake Protection Zone
km	Kilometres
km/hr	Kilometres per Hour
kV	Kilovolt
KZA	Kitigan Zibi Anishinabeg
LIO	Land Information Ontario
LSA	Local Study Area
Matrix Heritage	Matrix Heritage Inc.
m	Metres
MCM	Ministry of Citizenship and Multiculturalism
MECP	Ministry of Environment, Conservation and Parks
mm	Millimetres
MNR	Ministry of Natural Resources
MMAH	Ministry of Municipal Affairs and Housing
MEM	Ministry of Energy and Mines
MOECC	Ministry of the Environment and Climate Change
MTO	Ministry of Transportation
NCC	National Capital Commission
NHIC	Natural Heritage Information Centre
NO_2	Nitrogen Dioxide
NRCan	Natural Resources Canada
O_3	Ozone
^oC	Degrees Celsius
OP	Official Plan
O. Reg	Ontario Regulation
$PM_{2.5}$	Particulate Matter
PPS	Provincial Policy Statement
PSA	Project Study Area
PSW	Provincially Significant Wetlands
ROW	Right-of-way
RSA	Regional Study Area
RVCA	Rideau Valley Conservation Authority
SAR	Species at Risk

Acronym or Abbreviation	Definition
SARA	*Species at Risk Act*
SARO	Species at Risk Ontario
SCC	Species of Special Concern
SGRA	Significant Groundwater Recharge Area
SNCA	South Nation Conservation Authority
SO_2	Sulphur Dioxide
SWH	Significant Wildlife Habitat
SPR	Source Protection Region
SWP	Source Water Protection
TS	Transformer Station

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1.0 Introduction

Hydro One is Ontario's largest electricity transmission and distribution service provider; energizing life in Ontario for over 110 years. The City of Ottawa, including the Orléans area is expected to experience substantial growth over the coming years.

In August 2024, Hydro One commenced a Class Environmental Assessment (Class EA) to address the need for additional electricity in the area by reinforcing the transmission network through an additional 230 kV supply from Hawthorne Transformer Station (TS) to Orléans TS. Hydro One is calling this undertaking the Orléans Area Reinforcement Project (the Project).

The Project entails converting an existing 115 kV circuit to 230 kV and installing a replacement 115 kV circuit within an existing transmission corridor (**Figure 1-1**).

The Project is subject to the Class Environmental Assessment for Transmission Facilities (Class EA for TF; Hydro One, February 2024), an approved planning process under the *Environmental Assessment Act* (*EA Act*). The Class EA process is designed for proponents to characterize the existing environment, assess potential environmental effects and identify mitigation, identify and evaluate alternatives, conduct consultation and document study findings. This planning process applies to transmission infrastructure projects that are carried out routinely and have predictable environmental effects that can be readily managed.

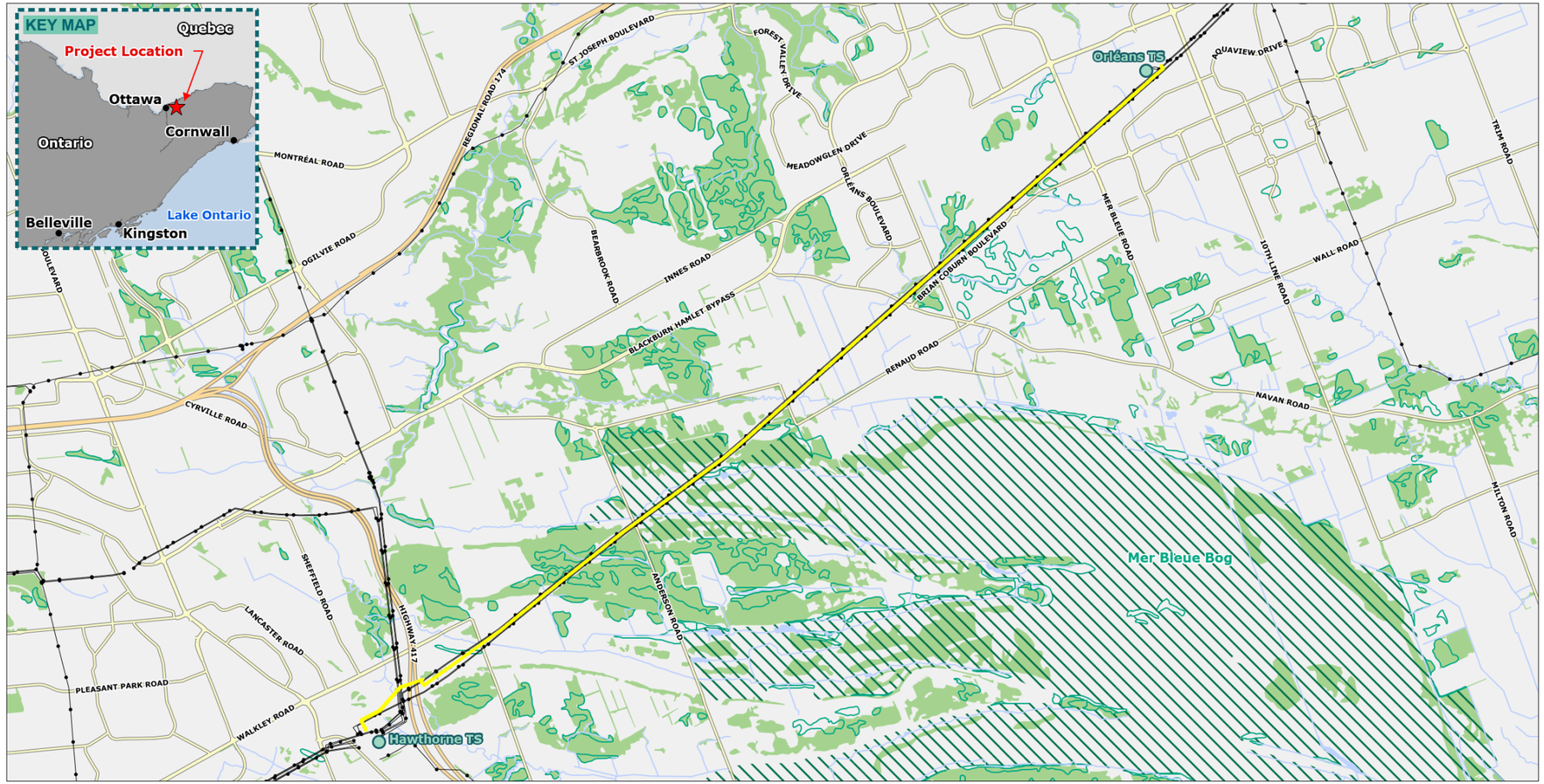
This final Environmental Study Report (ESR) has been prepared in accordance with the Class EA for TF to describe the Class EA process that was undertaken for the Project. The final ESR documents:

- Existing conditions in the Project Study Area (PSA; 120 m on either side of the preferred route centre line) and Local Study Area (LSA; 500 m on either side of the preferred route centre line);
- Notifications to, and consultation undertaken with: Indigenous communities, government agencies, municipal staff and elected officials, interest groups, and members of the public about the Project;

- The route identification and rationale to select the preferred route;
- Potential environmental effects associated with the Project; and
- Recommended avoidance, mitigation, and restoration measures to address these potential environmental effects.

In addition to the Class EA requirements, the Project crosses approximately 6 km of federal lands which are under the jurisdiction of the National Capital Commission (NCC). The portion of the Project on federal lands will require an approval under the *National Capital Act* and a determination of significance in accordance with Section 82 of the *Impact Assessment Act*. These regulatory requirements are being met through separate federal approval processes. This ESR describes the Class EA activities that have been undertaken for the portions of the proposed Project that are not located on federal lands.

Figure 1-1: Project Location



1.1. Need for the Undertaking

Electricity demand in Ottawa, including the Orléans area, is growing. This Project is intended to address forecasted increases in electricity demand in the Orléans area in the near- to mid-term. Increasing demand is primarily due to population growth, associated residential and commercial development, and transportation requirements (IESO, 2025; Ottawa Board of Trade, 2025).

Hydro One currently has one existing 230 kV circuit and one 115 kV circuit originating from Hawthorne TS and feeding Orléans TS. These circuits share a transmission corridor with two other 230 kV circuits continuing onwards that link to other transmission stations in the electricity grid and connect with Québec.

In 2022, the Greater Ottawa Regional Planning Technical Working Group recommended that to keep up with growth, additional load needs to be met from a new 230 kV supply extending from Hawthorne TS to Orléans TS (Greater Ottawa Technical Working Group, 2022).

1.2. Description of the Undertaking

The Project involves:

- Upgrading an existing 115 kV line extending from just east of Highway 417 near Hawthorne TS to Orléans TS to 230kV – no modifications to this line are required to upgrade to 230 kV as it already has the appropriately sized conductor and insulators;
- Constructing approximately 900 m of 230 kV line from Hawthorne TS to just east of Highway 417 to connect to the existing circuit to be upgraded;
- Constructing about 12 km of new 115 kV transmission line in the centre of the existing corridor from just east of Highway 417, near the Hawthorne TS to Orléans TS; and
- Modifying equipment within the existing transformer stations to accommodate the increase in capacity including:

  Hawthorne TS

  - Installation of station egress structures;
  - Installation of a new 230 kV circuit breaker;

- Installation of two new small battery buildings; and
- Installation of bus work, switchgear, and associated equipment.

Orléans TS

- Installation of permanent washroom facilities;
- Installation of new 230 kV transformer; and
- Installation of bus work, switchgear, and associated equipment.

Upon the successful completion of the Class EA process and receipt of subsequent required approvals, construction would begin. Construction is planned to begin in late 2026, with potential to begin earlier if possible.

The anticipated in-service date for the Project is 2029.

1.3. Alternatives to the Undertaking

The Class EA requires that, if technically reasonable alternative methods (such as routes or sites) are identified, they be assessed through a comparative evaluation.

Hydro One has determined the new transmission line can be constructed largely within the existing transmission corridor between Hawthorne TS and Orléans TS (apart from minor deviations on approach to both stations), as shown in **Figure 1-1**. The station upgrades can be completed within the existing station footprints. Consequently, developing and assessing alternative routes or sites was not necessary for this Project. This Class EA is focused on consultation and impact assessment with respect to the proposed route.

1.4. Approval Process and Regulatory Requirements

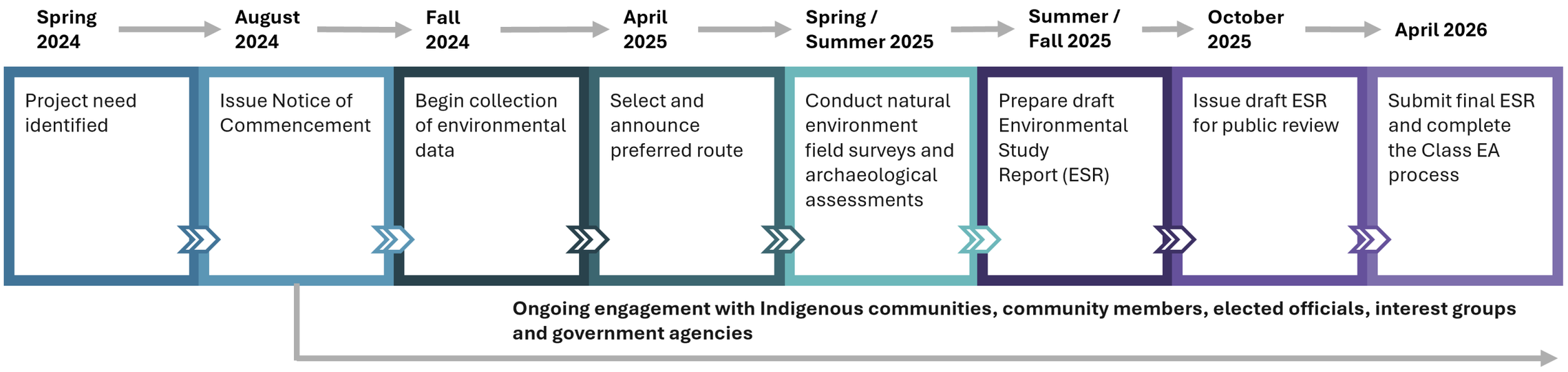
This section outlines the approval process required under the Class EA as well as other regulatory requirements.

1.4.1. Class Environmental Assessment Process

This final ESR has been prepared in accordance with the Class EA for TF (Hydro One, February 2024) an approved planning process under the *EA Act*. The Class EA process is illustrated in **Figure 1-2.** Components of the process include:

- Establish need (**Section 1.1**);
- Identify and evaluate “alternatives to” the undertaking (**Section 1.3**);
- Define the study area (**Section 2.1**);
- Issue initial notification (**Section 3.1**);
- Conduct an environmental inventory (**Section 4.0**);
- Identify and evaluate alternative routes, if any (discussed further in **Section 5.0**);
- Select the preferred route and prepare the draft ESR;
- Issue the Notice of Completion and the draft ESR for public review and comment (**Section 3.11**);
- File the final ESR and Class EA Statement of Completion with the Ministry of the Environment, Conservation and Parks (MECP) and proceed with the undertaking; and
- Conduct consultation and engagement throughout the process (**Section 3.0**).

Figure 1-2: Class Environmental Assessment Process



The Class EA for TF (Hydro One, February 2024) applies to Category B transmission projects that are not associated with Category B generation projects, as per the Guide to EA Requirements for Electricity Projects associated with Ontario Regulation (O. Reg.) 116 (MECP, 2011).

The criteria that triggered the Class EA for this Project is from Section 1.2 ("Class" of Projects Subject to the Class EA for TF), which states:

"Subject to Section 1.2.1 (Exclusions from the Class of Projects), the projects that are subject to the Class EA for TF are defined as follows:

1. Establishing a new or temporary transmission line that has a nominal operating voltage of greater than or equal to 115 kV and is greater than 2 km in length.
2. Refurbishing an existing transmission line that has a nominal operating voltage of greater than or equal to 115 kV and is greater than 2 km in length…"

1.4.2. National Capital Act

Approximately six km of the Project is proposed on federal lands owned by the National Capital Commission (NCC) and governed by the *National Capital Act* (R.S.C., 1985, c. N-4). Activities on NCC land require a Federal Land Use, Design and Transaction Approval (FLUDTA) to proceed. The NCC sets out requirements for the FLUDTA including submission of technical drawings, environmental field studies and reports, and archaeological studies. For this Project, the NCC also requires an Environmental Effects Evaluation be completed for the portion of the Project on federal lands. As such, the portion of the Project on federal lands is not included in the scope of this Class EA.

1.4.3. Impact Assessment Act

Federal government involvement under the *Impact Assessment Act* (SC 2019, c. 28, s. 1) is required for specific types of projects. The types of projects that require federal review and approval are listed as "designated projects" in the *Physical Activities Regulations* (SOR/2019-285) or are designated through Ministerial discretion.

The Project does not meet the criteria to be considered "designated" under the *Physical Activities Regulations*; however, under Section 82 of the *Impact Assessment Act,* projects on federal lands cannot be carried out unless the applicable federal authority (in this case, the NCC) has determined that doing so is not likely to cause significant adverse environmental effects. Environment and Climate Change Canada (ECCC) may

also have a responsibility to determine whether the Project is likely to cause significant adverse environmental effects, should a permit under Section 73 of the *Species at Risk Act* (SC 2002, c. 29) (*SARA*) be required. As part of the *Impact Assessment Act* process, a Project Description must be posted on the Canadian Impact Assessment Registry for a 30-day comment period.

1.4.4. Other Permits, Licenses, Approvals, and Regulatory Requirements

In addition to meeting *EA Act* requirements, there are several permits, licenses and approvals that may be required under municipal by-laws and provincial and federal legislation and regulations. These are described in **Table 1-1**. In addition to the notifications and engagements described in this final ESR, Hydro One will continue to contact the appropriate regulatory agencies to ensure that the proposed Project will meet the regulatory requirements prior to construction.

As stated in Section 62(1) of the *Planning Act* (R.S.O. 1990, c. P.13), "An undertaking of Hydro One Inc. that has been approved under the *EA Act* is not subject to this Act." While the proposed Project is not subject to the *Planning Act* after completion of the Class EA, Hydro One will continue to work with the City of Ottawa during and after the Class EA process as needed regarding the design and potential effects of the construction on local traffic and nearby communities.

Table 1-1: Potentially Required Permits, Licenses, Approvals, and Regulatory Requirements

Permit, License, or Approval	Primary Agency	Description
Approvals and/or Permits under the *SARA*	Environment and Climate Change Canada (ECCC)/ Canadian Wildlife Services (CWS)	May be required for planned works that might affect species at risk and/or their habitat which are protected under the *SARA*.
FLUDTA	NCC	The portion of the Project on NCC land (approximately six km) requires a FLUDTA in accordance with the *National Capital Act*.
Section 82 *Impact Assessment Act* determination	NCC	The portion of the Project on NCC land requires a determination under Section 82 of the *Impact Assessment Act*.

Permit, License, or Approval	Primary Agency	Description
Land Access Permit	NCC	Required for works that need the use of, or access to, NCC land.
Use, Storage, Transportation of Explosives	Natural Resources Canada (NRCan)	Required for magazines, vehicles used for transportation of explosives, and activities related to storage of explosives in support of splicing.
Fisheries Act Authorization	Fisheries and Oceans Canada (DFO)	At this time, in-water works are not anticipated to be required. If any in-water works are determined to be required, an authorization under the *Fisheries Act* may be required.
Section 92 Leave to Construct	OEB	Required for the construction of the new transmission line.
Environmental Activity and Sector Registry (EASR)	MECP	May be required for construction dewatering.
Air and Noise EASR	MECP	May be required for noise-emitting equipment as part of the upgrades to the Orléans TS.
Approvals and/or Permits under the *Endangered Species Act*, *2007*[1]	MECP	May be required for planned works that might affect Species at Risk (SAR) and/or their habitat which are protected under the *Endangered Species Act*, *2007*.
Archaeological Acceptance Letters	Ministry of Citizenship and Multiculturalism (MCM)	Archaeological assessment is required prior to undertaking new ground disturbance in areas with archeological potential.
Ontario Heritage Act – Entry of Archaeological Assessment Reports into the Ontario Public Register of	Ministry of Citizenship and Multiculturalism (MCM)	Archaeological assessment for any area of archaeological potential that could be impacted by the Project is required to be carried out by a licensed archaeologist prior to any ground disturbance activities.

[1] Bill 5 reached royal assent on June 5, 2025. At the time of drafting this report, the *Endangered Species Act, 2007* is still in effect. The proposed *Species Conservation Act* (SCA) is expected to be in effect by early 2026, and permitting requirements under the SCA will be determined at that time.

Permit, License, or Approval	Primary Agency	Description
Archaeological Reports		
Ontario Heritage Act – Completion of Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment and other technical cultural heritage studies, as required	MCM	Hydro One as a prescribed public body is required to comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties (issued under Section 25.2 of the *Ontario Heritage Act*) including its approved Identification and Evaluation Process and completion of technical cultural heritage studies.
Section 28 Permit under the *Conservation Authorities Act (1990)*	Conservation Authority	Development activities that may interfere with watercourse, wetland, hazardous land, and river or stream valleys.
Noise By-law Exemption	City of Ottawa	An exemption may be required if the operation of construction equipment occurs outside of the Noise By-law curfew.
Road Entrance Permits	City of Ottawa	Required to construct potential new entrances for access to a construction site from existing municipal roads.
Notice of Work	Rail Companies	May be required for crossings of federally regulated rail lines.
Clearance Letter	Utility companies	Required to cross utilities (e.g., natural gas or oil pipelines, fibre optics).

If other permits are identified as required, Hydro One will work with the regulator to ensure compliance.

2.0 Assessment Methods

The description of the environmental and socio-economic setting (i.e., the current state of the environment) within the Project's assessment boundaries is used to identify potential environmental and socio-economic effects that might be caused by the Project.

The assessment evaluated the potential environmental and socio-economic effects of the Project by applying the following iterative process:

- Identify Project components and associated activities that are necessary to complete the Project;
- Identify the environmental and socio-economic elements with a Project interaction;
- Determine the spatial and temporal boundaries for the assessment;
- Describe the environmental and socio-economic setting for the Project;
- Identify the potential environmental and socio-economic effects;
- Develop appropriate technically and economically feasible mitigation;
- Identify anticipated net effects and cumulative effects; and
- Determine the significance of net effects and cumulative effects.

The Project effects assessment is provided in **Section 7.0**.

2.1. Assessment Boundaries

This EA predicts the potential effects of the Project on the environmental and socio-economic elements within defined spatial and temporal boundaries. These boundaries will reflect:

- The biophysical and socio-economic baseline setting within the spatial boundaries of the Project;
- The proposed physical works and physical activities;
- The area potentially affected by proposed physical works and physical activities;
- The area in which an element occurs or functions, and within which a Project effect may be detected;
- The time required for an effect to become evident; and
- The time required for an element to recover from an effect and return to a pre-effect condition.

2.1.1. Spatial Boundaries

Spatial boundaries were determined by the distribution, movement patterns, or potential zones of interaction between each element and the Project.

At the outset of the Class EA, three study areas (Local Study Area, Project Study Area, and Regional Study Area) were identified to consider potential natural and socio-economic environmental features and potential effects associated with the preferred route (**Figure 2-1**). The study areas are described in the following sections.

2.1.1.1. Project Study Area

A Project Study Area (PSA) was delineated to include lands within 120 metres (m) of the preferred route centre line from Hawthorne TS to Orléans TS. The purpose of the PSA was to determine an area that would encompass the future asset location, associated ROW, and abutting/directly adjacent lands. This area was established to allow for appropriate scoping and planning of technical studies and field investigations to document baseline conditions.

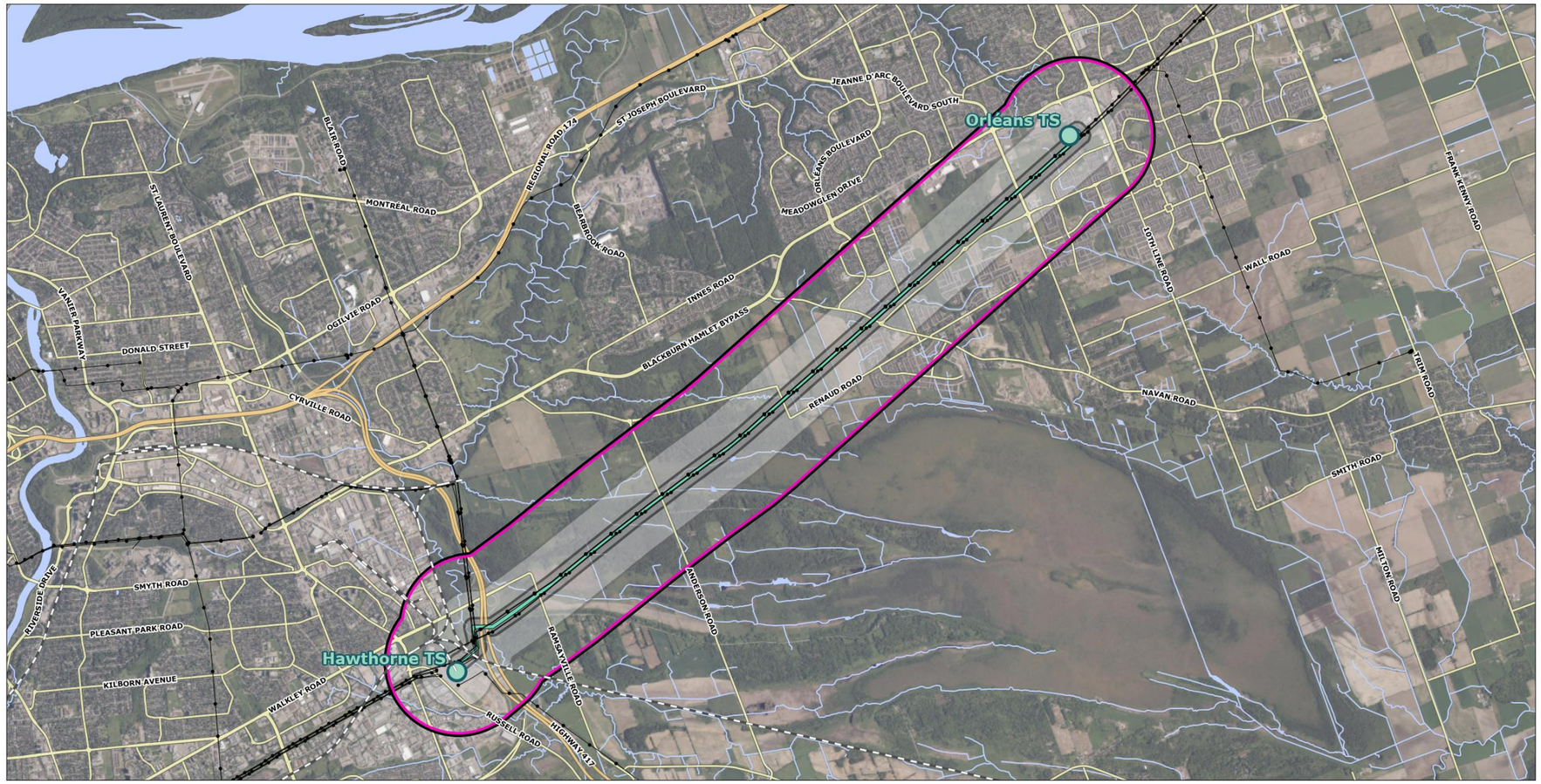
2.1.1.2. Local Study Area

The Local Study Area (LSA) was delineated to include lands within 500 m of the preferred route centre line from Hawthorne TS to Orléans TS. The purpose of the LSA was to expand upon the PSA to include an area of potential indirect Project effects on the natural and socio-economic environments and to capture potential cumulative effects.

2.1.1.3. Regional Study Area

The Regional Study Area (RSA) was delineated to include lands within one kilometre (km) of the preferred route centre line from Hawthorne TS to Orléans TS. The purpose of the RSA was to expand upon the LSA to include potential indirect Project effects on the socio-economic environment.

Figure 2-1: Project Study Areas



ORLÉANS AREA REINFORCEMENT PROJECT

Transformer Station (TS)
Regional Study Area (1 km)
Local Study Area (500 m)
Project Study Area (120 m)
Proposed Transmission Line
Existing Transmission Line
Highway
Major Road
Waterbody (MNR, 2024)
Watercourse (MNR, 2024)
Railway

PROJECT STUDY AREAS

FIGURE 2-1

MAP DRAWING INFORMATION:
DATA PROVIDED BY HYDRO ONE NETWORKS INC, MNRF, DILLON CONSULTING LTD.

MAP CREATED BY: AEE
MAP CHECKED BY: IQ
MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

SCALE 1:50,000
0 0.5 1 2 km
PROJECT: 24-8296 STATUS: DRAFT DATE: 2025-09-29

FILE LOCATION: K:\2024\248296\Product\Client\ESR\ESR\ESR.aprx

2.1.2. Temporal Boundaries

Temporal boundaries define the time period in which Project-specific effects are considered in the assessment. The following temporal boundaries were used for the effects assessment:

- **Construction:** scheduled to occur over approximately 24 months beginning in August 2026.
- **Operations:** begins on the in-service date through the entire operational life of the Project (approximately 50 years).

2.2. Methods of Predicting Potential Effects

The identification of potential environmental and socio-economic effects generally focuses on the broad environmental (i.e., biophysical) and socio-economic elements. For each element, potential effects are identified as subsets of each element, representing interactions with the biophysical and socio-economic environment that may be affected by the Project. An analysis of potential effects is the means from which net effects are then predicted and assessed in the EA.

The potential effects associated with Project activities were identified through experience gained during previous Projects with similar conditions, existing literature, and internet searches, as well as the professional judgement of the assessment team.

2.3. Mitigation Measures

Mitigation measures, as defined under the federal *Impact Assessment Act*, means “measures to eliminate, reduce, control or offset the adverse effects of a Project […] and includes restitution for any damage caused by those effects through replacement, restoration, compensation or any other means”.

A number of general and site-specific mitigation measures have been proposed based on current industry-accepted standards, as well as the professional judgement of the assessment team, to reduce the severity of potential environmental and socio-economic effects during Project activities.

2.4. Identification and Characterization of Net Effects

Net effects are the environmental and socio-economic effects remaining following the implementation of mitigation measures. In many situations, the recommended mitigation measures will completely mitigate a potential effect; however, in other situations, the mitigation measures will lessen the effects but not entirely eliminate them. In these situations, a net effect is identified and evaluated for significance, including the likelihood that a significant effect may occur.

The criteria used in the analysis of net effects are presented in **Table 2-1.**

Table 2-1: Criteria for the Characterization of Net Effects and Evaluation of Significance

Assessment Criteria	Definition
Spatial Boundary – Location of the Net Effect	
PSA	Lands within 120 m of the preferred route centerline from Hawthorne TS to Orléans TS. Area that encompasses the future asset location, associated ROW, and abutting/directly adjacent lands. Established to allow for appropriate scoping and planning of technical studies and field investigations to document baseline conditions.
LSA	Lands within 500 m of the preferred route centerline from Hawthorne TS to Orléans TS. Expands upon the PSA to include an area of potential indirect Project effects on the natural and socio-economic environments and to capture potential cumulative effects.
RSA	Lands within one km of the preferred route centerline from Hawthorne TS to Orléans TS. Expands upon the LSA to include potential indirect Project effects on the socio-economic environment.

Assessment Criteria	Definition	
Temporal Context of the Net Effect		
Duration	Immediate	The net effect is limited to two days or less.
	Short-term	The net effect is limited to the period of time where physical construction activities are actively occurring, including cleanup and reclamation, or any one year during the life of the Project.
	Medium-term	The net effect extends into the operations phase of the Project for up to 10 years.
	Long-term	The net effect extends into the operations phase of the Project for more than 10 years but does not extend beyond the operational life of the Project.
	Extended term	The net effect extends beyond the operational life of the Project.
Frequency	Rare	The net effect occurs uncommonly or unpredictably (e.g., as a result of an accident or malfunction) over the assessment period.
	Isolated	The net effect is confined to a specified phase of the assessment period.
	Occasional	The net effect occurs intermittently and sporadically over the assessment period.
	Periodic	The net effect occurs intermittently, but repeatedly, over the assessment period.
	Continuous	The net effect occurs without interruption throughout the assessment period.
Reversibility	Reversible	The net effect is reversible to pre-Project or equivalent conditions.
	Irreversible	The net effect is permanent.
Magnitude of the Net Effect – Biophysical Elements		
Negligible	Net effects are not detectable or are within the range of natural variability or inconsequential to the function, health, performance, or sustainability of the element.	

Assessment Criteria	Definition
Low	Net effects are detectable; however, they are well within environmental or regulatory standards, or both.
Medium	Net effects are detectable and may approach, but are still within, the environmental or regulatory standards, or both.
High	Net effects are beyond environmental or regulatory standards, or both.
Magnitude of the Net Effect – Socio-Economic Elements	
Negligible	No detectable change from existing (baseline) conditions.
Low	Change is detectable, but change is limited and the majority of those affected will likely be able to adapt easily to changes and maintain pre-effect livelihoods, culture, quality of life, land use patterns, and health levels.
Medium	Change is detectable and results in moderate modification to existing conditions and the majority of those affected will likely be able to adapt easily to changes and maintain pre-effect livelihoods, culture, quality of life, land use patterns, and health levels.
High	Change is detectable and is large enough to result in a severe modification to existing conditions and those affected will not be able to adapt to changes or maintain their pre-effect livelihoods, culture, quality of life, land use patterns, and health levels.

For many of the elements under evaluation, there are no specific environmental or socio-economic standards, guidelines, thresholds, targets, or objectives. Therefore, the determination of magnitude of the net effects often entailed consideration of previous assessments of magnitude made by regulatory authorities. In addition, determination of magnitude relied on the experience of the assessment team, informed by outcomes of previous projects with similar conditions and potential issues.

2.5. Significance Determination

A determination of significance was completed for identified net effects. An evaluation of significance is not required for those potential effects where no net effect is identified. All assessment criteria were considered by the assessment team when determining the significance of each net effect.

For environmental elements, a net effect is considered significant if the effect is predicted to be either of the following:

- Irreversible and high magnitude; or
- Reversible, but long-term or extended term in duration and high magnitude.

For socio-economic elements, a net effect is considered significant if the effect is predicted to be either of the following:

- Reversible, but high magnitude and extending beyond the RSA; or
- Irreversible and high magnitude.

3.0 Consultation

Consultation is an important component of the Class EA process that provides opportunities for various groups to meaningfully participate and provide input in the planning process. It also allows the proponent to gather feedback and learn about social, cultural, economic, and natural environment considerations related to the proposed Project. The key principles that have guided Hydro One's approach to consultation and engagement include:

- Ongoing, meaningful, and open engagement with residents and communities affected by or interested in the proposed Project;
- A transparent and flexible engagement process;
- Communicating Project information to support a two-way dialogue with Indigenous communities, local elected officials, federal, provincial, and municipal government agencies, local residents, farmers and property owners, interested persons, businesses, and interest groups;
- Ongoing opportunities for interested parties to learn about and provide meaningful input on the proposed Project; and,
- Full and fair considerations and documentation by the proponent of all input received during the consultation and engagement process and incorporation of such input, where feasible and reasonable, into Project planning.

The Project contact list at the time of this report is provided in **Appendix A-1**.

To facilitate transparent and robust consultation and engagement, a variety of tools were implemented, consisting of:

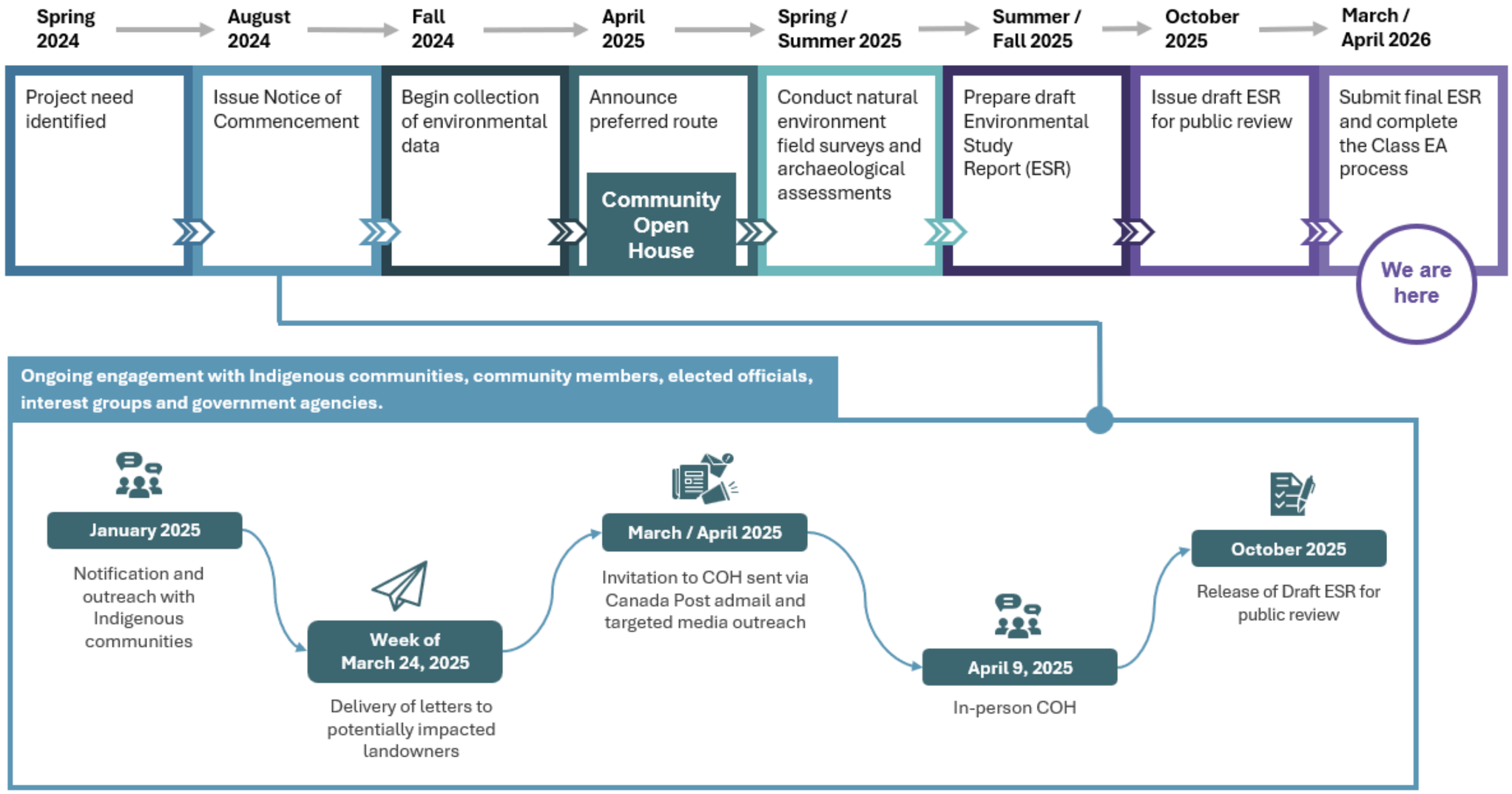
- Early engagement with Indigenous communities;
- Notification letters to provide updates on the Project. Notices were sent via Canada Post admail to available postal routes and post office boxes intersecting the LSA and via hand delivery during the Canada Post strike;
- Letters via registered mail and email to potentially and directly affected landowners to provide updates on the Project and encourage any questions and feedback to be discussed with the appropriate Project representative;
- Newspaper, radio, and social media advertisements to provide updates on the Project and reminders of upcoming public engagement events;
- An in-person community open house (COH);

- Meetings and discussions with municipal, provincial and federal elected officials, agency and municipal staff, Indigenous communities, and residents;
- Virtual and in-person meetings, and correspondence with Rightsholders and stakeholders who expressed specific interests, concerns and/or feedback;
- Establishment of a Project contact list, through which interested parties received Project updates via email, or via Canada Post mail for those who requested accommodation;
- A dedicated Community Relations email address and phone number for receiving questions and feedback; and
- A Project website: https://www.hydroone.com/orleans, which included an interactive online mapping tool to help share Project information and updates.

The results of the consultation and engagement activities are summarized in the sections below. Feedback was considered by the Project team and incorporated where appropriate. Copies of consultation and engagement materials including the Project notices and COH display panels are provided in **Appendix A-2**. A copy of the Project Record of Consultation is provided in **Appendix A-3.**

A high-level overview of the consultation and engagement timeline is outlined in **Figure 3-1** and further explained in the subsections below.

Figure 3-1: Consultation Timeline



3.1. Notice of Commencement

A Notice of Commencement was prepared to introduce the Project by providing details on the Project need, description, study area, the preferred route, and the associated regulatory processes. The notice referred to the Project website and solicited questions and comments to be provided to Hydro One Community Relations.

The Notice of Commencement was sent to property owners within the Project Local Study Area via Canada Post targeted admail the week of August 27, 2024. The notice was also emailed to the Project contact list by Hydro One on August 30, 2024.

Refer to **Appendix A-2** for a copy of the Notice of Commencement.

3.2. Interactive Project Map

On April 8, 2025, Hydro One posted an interactive map available through the Project website (hydroone.com/orleans). The interactive map allowed members of the public to turn on and off layers and to explore the environmental features around the preferred route in more detail by zooming into specific locations. In addition, the interactive map provided the opportunity for members of the public to post comments and/or questions directly on the map under specific factor categories (e.g., natural environment, social and cultural environment, economic environment, technical considerations) or as general input.

To date, no comments have been received through the interactive map.

3.3. Community Open House

An in-person COH was held on April 9, 2025, to provide stakeholders with the opportunity to speak to the Project team and learn more about the Project. The COH invitation was distributed as follows:

- Dillon Consulting Limited (Dillon) mailed the invitation to 10 affected property owners via Canada Post registered mail during the week of March 24, 2025. Along with the invitation, a letter and an individualized map showing anticipated property impacts were provided.
- The invitation for COH was emailed to the Project contact list by Hydro One during the week of March 24, 2025;
- Dillon coordinated the mailing of the invitation to postal codes within the LSA via Canada Post targeted admail for the week of March 24, 2025;

- Targeted media outreach was undertaken in advance of the COH and was broadcasted from March 20 to April 8, 2025, as follows:
  - The Orléans Star – March 20, 2025;
  - 580 CFRA (CRFA 580AM) – March 24 to April 8, 2025; and
  - CJMJ-FM (Move 100.3) – March 24 to April 8, 2025.
- Social media ads for the Notice of Community Open House were posted from March 24 to April 9, 2025.

The COH allowed the Project team to engage in one-on-one discussions with stakeholders and gather feedback/input on the Project. The key information shared at these sessions included:

- Hydro One's role in the electricity system;
- Project overview;
- The planning process, including the Class EA and the federal approval process;
- The proposed route and benefits identified;
- Preliminary mitigation measures for the Project;
- Considerations for detailed design of the transmission line;
- How Hydro One will continue to work with property owners and Indigenous communities;
- The anticipated Project schedule; and
- How to provide feedback and comments.

The COH was held on April 9, 2025, from 3:00 p.m. to 7:00 p.m. at Notre-Dame-des-Champs Community Hall, 3659 Navan Road, in the Orléans neighbourhood of Ottawa, Ontario. A total of 10 attendees signed in at the COH.

A drop-in format was used for the COH, with information displayed around the room (see **Appendix A-2** for a copy of the display panels) and Project team members available to speak with attendees regarding the Project and the Class EA process, answer questions, and take comments. Larger-scale tabletop maps depicting the preferred route were also available for attendees to review and add comments or notes directly on the map. Project team members had recording sheets to note comments from conversations with attendees. Participants with further questions were also encouraged to submit a comment form or contact the Project team directly. Comments and questions were noted and addressed by the Project team.

Discussion at the COH focused on the following themes:

- General Project information;
- Impacts to residential/agricultural land;
- The route selection process;
- Property rights and property acquisition;
- Route direction, location, and design;
- Existing and new infrastructure;
- Project need;
- The location and purpose of the new transmission line;
- Whether the Project will disrupt power and impact electricity rates; and
- The timeline for the Project and anticipated construction duration.

3.4. Indigenous Communities

Consultation with Indigenous communities is a legal requirement rooted in the constitutional duty of the Crown to consult, and where appropriate, accommodate Indigenous communities when rights may be impacted by a project. Consultation with Indigenous communities is also an important part of the engagement requirements of the Class EA process. As such, the Crown's Duty to Consult requirements per Section 35 of the *Constitution Act*, 1982 may be discharged (partially or fully) concurrent with the Class EA process. While the Crown holds the honour and responsibility for ensuring meaningful consultation, it can delegate certain procedural aspects of the process to proponents.

Hydro One contacted the Ministry of Energy and Mines (MEM) on September 27, 2024, to understand if the Crown's Duty to Consult was triggered by the proposed Project. Hydro One wished to confirm which Indigenous communities were to be consulted and if the Crown would be delegating procedural aspects of the consultation to Hydro One. In the correspondence, Hydro One provided a description of the characteristics, general location, and scope of the proposed Project.

On December 13, 2024, a letter from the MEM provided specific delegation of procedural aspects of the Crown's Duty to Consult to Hydro One. The letter also advised that the following communities were required to be included in the consultation and engagement process and the level of consultation:

- Algonquins of Ontario;

- Algonquins of Pikwakanagan First Nation; and
- Kitigan Zibi Anishinabeg.

The Hydro One inquiry letter to the Crown and the Crown Duty to Consult delegation letter are included in **Appendix A-4**.

The communities listed above were notified of the proposed Project through a Notice of Commencement email sent on January 9, 2025, notifying the communities that Hydro One has initiated a Class EA for TF for the Project. The emails outlined the proposed Project description, schedule, and planned field studies, noting that archaeological studies and most field studies are scheduled for the upcoming spring/summer field season. Hydro One offered to meet with the Indigenous communities.

The Indigenous community consultation and engagement process was implemented to promote a transparent and meaningful approach. The process included:

- Notifications and provision of updates on the Project as they became available throughout the Class EA process;
- Ongoing reminders of upcoming public and offered with capacity to host Indigenous-specific community information events;
- Offers by the Hydro One Project team to meet with the community to present the proposed Project and to identify and address potential issues or concerns;
- Frequent meetings, correspondence, and discussions with designated staff/leaders from Indigenous communities;
- Dedicated Indigenous Relations Project representatives;
- The invitation to participate in archaeological assessments and natural environment field studies, including the sharing of survey locations to assist in the design of the natural environment field program to gather input in advance. The summaries of the field surveys were provided after to review if the communities could not participate in the surveys in person;
- The Stage 1 Archaeological Assessment (AA) report was provided for review, and Indigenous communities will be invited to participate in Stage 2 AA;
- Establishment and maintenance of a Project website (hydroone.com/orleans) and interactive Project map, allowing for the sharing of Project information and updates; and
- Offering capacity funding to support monitoring and Project engagement activities.

Ongoing correspondence and records of engagement activities with Indigenous communities and groups is included in the Record of Consultation (**Appendix A-3**).

3.4.1. Capacity Funding Agreements

The Indigenous communities identified by the Crown to be consulted by Hydro One (via delegation) are key contributors to the Project planning. At the outset of the Class EA process, Hydro One offered capacity through Capacity Funding Agreements (CFAs) to communities who requested capacity in order to be consulted and participate in the proposed Project. The CFAs are meant to address the following aspects with communities:

- Outline an agreed-upon method of consultation and engagement, considering community protocols and practices;
- Outline a jointly agreed-upon work plan and budget for the community to be meaningfully consulted on the Project, including adequate capacity and resourcing to participate; and
- Outline a process for the sharing of information regarding the Project and associated studies, regulatory processes, and invoicing.

Hydro One recognizes that each community may wish to amend aspects of the agreement to reflect community consultation protocols that may already be established. Indigenous communities were requested to review the agreements and share revisions with Hydro One.

3.4.2. Indigenous Participation in Field Surveys

Hydro One is committed to support and build capacity for the involved Indigenous communities that are interested in participating in the Project. Hydro One agreed to provide funding to Algonquins of Ontario and Algonquins of Pikwakanagan First Nation to retain monitors in connection with the natural environment field studies required for the Project. Indigenous communities will continue to be invited to participate and review the planned future archaeological assessments.

3.4.3. Indigenous Consultation

This section describes consultation with Indigenous communities and representing groups that occurred in addition to the consultation methods noted above.

3.4.3.1. Algonquins of Ontario

Algonquins of Ontario (AOO) received an advanced Notice of Commencement email on January 9, 2025. Hydro One also welcomed participation in spring field studies and offered to meet for a briefing on the proposed Project.

On January 10, 2025, AOO emailed Hydro One to inform them that they have a coordinator for the monitor program if archaeological works are to be done, and that the coordinator will be in contact with Hydro One regarding monitor availability. Hydro One responded to this email to coordinate an archaeological monitor with AOO.

AOO Ontario emailed Hydro One on January 13, 2025, to inform them that someone from AOO will soon be in touch regarding preliminary input on the proposed Project.

On January 16, 2025, the AOO Project coordinator noted they looked forward to the Projects planned for the season.

On March 10, 2025, Hydro one sent an email to AOO inviting them to the COH and to connect with the consultants leading the field monitoring in the spring. AOO responded expressing interest in both field monitoring for the spring and attending the COH.

Dillon emailed AOO representatives on March 14, 2025, to send the COH invitation to share with the rest of their community. Another email sent on this date from Hydro One to AOO reviewed the tentative schedule for amphibian surveys. Hydro One noted they would be in touch over the coming weeks with more information about health and safety plans, survey protocols, and general study locations and dates. Dillon also stated they would be providing a Monitoring Agreement for their sign-off prior to beginning the fieldwork.

On March 24, 2025, Hydro One emailed AOO to confirm the rates and changes to the monitoring agreement for Project participation. Hydro One also sent AOO a summary of planned field surveys including the methodology and general timing, the Health and Safety Plan for review/sign-off, and Monitor Agreements.

On March 26, 2025, Dillon informed AOO of survey times for Western Chorus Frog surveys but also advised AOO that surveys would likely be delayed due to weather.

On April 30, 2025, Matrix Heritage Inc. (Matrix Heritage) emailed AOO informing that they have been retained by Dillon to undertake a Stage 1 Archaeological Assessment

(AA) and an Archaeological Overview Assessment and invited them to participate in a site visit to assess archaeological potential.

AOO emailed Dillon on June 4, 2025 to indicate they do not have any monitors available for fieldwork.

From May 30 to July 29, 2025, Dillon and AOO coordinated the participation of AOO monitors for the Project environmental field surveys including breeding bird surveys, aquatic habitat assessments and botanical surveys.

Between July 8 and August 13, 2025, Dillon provided AOO with summaries of findings from the environmental field work, including the ELC and potential significant wildlife habitat and SAR surveys.

On August 25, 2025, Hydro One emailed AOO and requested feedback on the Project's Stage 1 AA and Archaeological Overview Assessment. AOO responded the following day noting they would provide comments on the Stage 1 AA and Archaeological Overview Assessment within two weeks. On September 26 and October 3, 2025, Hydro One emailed AOO and followed up on their comments regarding the Stage 1 AA and the Archaeological Overview Assessment. On October 6, 2025, AOO emailed Hydro One and noted they supported the recommendations provided in the report. AOO emphasized the importance of the inundation by the Champlain Sea and post-drainage through the Ottawa Valley on archaeological potential and requested to be kept updated on further archaeological work.

On October 8, 2025, Matrix Heritage emailed AOO and provided details on the start of the Stage 2 AA fieldwork. AOO responded the same day requesting the tailgate forms so they could update their files.

Hydro One emailed AOO on October 15, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. AOO acknowledged receipt of Hydro One's email the same day and indicated they would follow-up with any questions. Between October 27, and October 30, 2025, Hydro One and AOO discussed capacity funding to review the draft ESR.

On October 30, 2025, Matrix Heritage emailed AOO and provided the details for the Stage 2 AA fieldwork planned for November 5, 2025. AOO responded the same day

noting they were waiting for a response from their monitors and would send their contact information once confirmed. On November 4, 2025, Matrix Heritage emailed AOO and indicated they were calling a rain day for the planned fieldwork and would go out on November 6, 2025, instead.

On November 7, 2025, Hydro One emailed AOO to check in on their monitor who attended the Stage 2 AA fieldwork the previous day after an encounter during the fieldwork. Hydro One noted to reach out if there was any support they could offer the monitor.

Between November 20 and 25, 2025, Matrix Heritage and AOO corresponded over email to coordinate the Stage 2 AA fieldwork.

On November 25, 2025, Hydro One emailed AOO a reminder regarding the draft ESR and ESR comments, noting they were due on December 2, 2025. On December 18, 2025, Hydro One emailed AOO checking in on their review of the draft ESR and inquiring if there was anything else they required from Hydro One to support their review.

On January 27, 2026, AOO sent comments on the draft ESR to Hydro One. On January 29, 2026, Hydro One emailed AOO and thanked them for providing comment on the draft ESR. On February 5, 2026, Hydro One emailed AOO and provided responses to AOO's comments.

3.4.3.2. Algonquins of Pikwakanagan First Nation

Hydro One emailed Algonquins of Pikwakanagan First Nation (AOPFN) on August 16, 2024, and provided the Notice of Commencement for the Project and noted that the proposed Project can be included in an upcoming meeting.

On August 28, 2024, AOPFN emailed Hydro One and indicated their preference for the meeting to be Project-oriented and that they could schedule a broader relationship meeting at a later time. Hydro One responded to this email with confirmation of meeting date and times, as well as a tentative meeting agenda and list of Hydro One attendees.

On September 3, 2025, Hydro One met virtually with AOPFN to discuss the Project.

On October 11, 2024, Hydro One sent a tentative agenda for the following week's meeting to AOPFN for comments and edits.

On October 17, 2024, Hydro One met with AOPFN in person in the community and discussed the proposed Project description, location, schedule and regulatory requirements, along with capacity funding.

On November 13, 2024, Hydro One emailed AOPFN a requested CFA for their review and consideration and offered to arrange a phone call to discuss. The email included the list of studies that Guardian monitors would be invited to participate in for Spring 2025.

On November 18, 2024, AOPFN sent Hydro One the draft capacity budget back with comments and revisions. Hydro One acknowledged the revisions and included responses to the comments. Hydro One also proposed a virtual meeting with suggested dates to discuss details of finalizing the CFA.

AOPFN emailed Hydro One on January 20, 2025, to focus on meeting arrangements to review comments and edits on the CFA budget. AOPFN and Hydro One also confirmed a meeting would be arranged to discuss the proposed Project.

On January 21, 2025, Hydro One met with AOPFN to discuss the CFA for the proposed Project. Following the meeting on January 22, 2025, Hydro One requested for AOPFN to provide the invoices for the consultation that has taken place to-date as they continue to discuss the CFA.

On January 30, 2025, Hydro One emailed AOPFN and provided the latest copy of the CFA, including the Letter Agreement for review. Hydro One's email highlighted that the proposed Project would occur within an existing hydro corridor and easement, with no significant impacts or modifications to Crown lands. Hydro One proposed adjustments to the CFA and invited AOPFN for further discussion on these recommendations.

On March 10, 2025, Hydro One and AOPFN corresponded over email regarding the public COH and to connect AOPFN with the consultants leading the field monitoring in spring 2025.

On March 11, 2025, Hydro One sent an email to AOPFN regarding the CFA.

On March 14, 2025, Hydro One emailed AOPFN to follow up on the status of the CFA and provide them with the formal Notice of Commencement and the COH invitation and details. The same day, AOPFN responded requesting more details on the COH to

determine leadership attendance and mentioned that due to the scope of the proposed Project that they will not be planning to host a community specific COH.

On March 14, 2025, Hydro One sent requested information on the COH to AOPFN.

Dillon, on behalf of Hydro One, emailed AOPFN on March 25, 2025, to provide a document outlining the planned field surveys for 2025 and to provide a reminder of specific dates for the Amphibian Call Count Survey. Dillon indicated that a Health and Safety Plan must be signed before monitors can participate and that a signed Monitor Agreement is also required before fieldwork.

On March 27, 2025, Dillon emailed AOPFN to provide a revised monitoring agreement.

Dillon emailed AOPFN on April 1, 2025, to postpone field surveys due to weather and then followed up on April 7, 2025, to provide the updated field survey dates.

On April 11, 2025, AOPFN emailed Hydro One and Dillon informing them that the Neyagada Wabandangaki Guardian Program (NWGP) Guardians were in training and would be unavailable for the scheduled surveys in April and that they would be available for the studies onwards. AOPFN requested that the field reports for the surveys be shared to monitor and review. Following, Dillon responded that field surveys will be postponed due to weather and provided an updated schedule.

On April 15, 2025, AOPFN sent an email regarding monitoring agreements. Dillon sent a response the same day to confirm agreement details such as number of monitors required for field studies. AOPFN sent monitoring agreement supplementary documents and requested an update on the status of the CFA following AOPFN revisions.

On April 25, 2025, Dillon sent a schedule of the May field surveys for participation coordination. Then on April 30, 2025, Dillon sent summaries from the April field surveys along with a copy of the field notes.

On the same day, Matrix Heritage emailed AOPFN informing that they have been retained by Dillon to undertake a Stage 1 AA and an Archaeological Overview Assessment and invited them to participate in a site visit to assess archaeological potential. AOPFN emailed back confirming their interest in participating and their availability.

On May 1, 2025, AOPFN emailed Dillon informing them that the Guardians are undergoing internal rescoping, which is preventing them from being able to participate in the May field surveys.

On May 2, 2025, Matrix Heritage emailed AOPFN the schedule and details for participation in the Stage 1 AA and Archeological Overview Assessment site visit. AOPFN responded to confirm their representative will be on site. The same day, Dillon emailed AOPFN with an updated schedule for environmental field surveys and invited them for participation.

On May 6, 2025, AOPFN emailed Hydro One the CFA with edits and comments for Hydro One's consideration. On the same day, Dillon emailed AOPFN with a summary of completed environmental field surveys and a copy of the field notes.

On May 9, 2025, Dillon sent an email to AOPFN regarding completing and rescheduling of the remaining environmental field surveys.

On May 12, 2025, Hydro One sent an email to AOPFN with some revisions and comments to the CFA for their consideration. Hydro One requested a meeting to discuss the proposed revisions. On May 13, 2025, AOPFN sent an email to Hydro One requesting discussion topics to coordinate the requested meeting.

On May 14, 2025, AOPFN emailed Hydro One and Dillon to discuss details of the monitoring agreement and their proposed funding cap for participation. Hydro One emailed AOPFN to request a meeting to discuss several ongoing concerns, including the capacity funding. The same day, Dillon sent an email with a summary of completed environmental field surveys and included field notes.

On May 15, 2025, AOPFN sent an email to Hydro One to seek clarification regarding invoicing for capacity funding and address revisions to the CFA. Hydro One followed up with AOPFN to request a meeting to discuss the CFA and to encourage them to continue to work with the consultants leading the field work.

AOPFN emailed Hydro One on May 20, 2025, to indicate that their Guardian Program has been undergoing restructuring and as such, field monitors will not be participating in the Project moving forward. AOPFN further stated that they will send a revised version of the CFA to Hydro One. Following that email, on May 21, 2025, AOPFN sent their

recent comments on the CFA, requesting Hydro One provide a response to the newest comments prior to meeting.

On May 30, 2025, Dillon sent survey results and summaries from completed environmental field surveys to AOPFN.

On June 9, 2025, Hydro One and AOPFN held a virtual meeting to discuss capacity funding and invoices. Hydro One sent a follow up email with meeting notes and a Capacity Funding Agreement Letter.

On June 12, 2025, AOPFN sent an email to Hydro One regarding the Capacity Funding Agreement Letter. On June 16, 2025, Hydro One responded back that a new draft of the CFA will be sent in a few days.

On July 8, 2025, Hydro One sent the CFA to AOPFN incorporating their updates.

On July 17, 2025, AOPFN sent an email to Hydro One regarding their review of the CFA and invoicing structures, requesting a clean copy of the revisions to the agreement. Hydro One replied regarding the requested revisions to the agreement and sent the CFA on July 23, 2025. AOPFN sent a signed copy of the CFA on July 25, 2025.

During the months of June, July, and August 2025, Dillon and AOPFN corresponded regarding the environmental field surveys and Dillon provided survey field notes, results, and mapping to AOPFN.

On September 22, 2025, Matrix Heritage emailed AOPFN and introduced themselves, noting they were retained to undertake the Stage 2 AA for the Project. Matrix Heritage requested comments or concerns regarding the proposed work. On September 23, 2025, Hydro One emailed AOPFN and introduced Matrix Heritage, the archaeological consultants on the Project and noted that Matrix Heritage would reach out directly to coordinate monitors for the work. On October 1, 2025, Matrix Heritage emailed AOPFN and informed them of a delay in the start of the Stage 2 AA fieldwork, noting it would begin on October 14, 2025.

AOPFN and Hydro One corresponded over text on October 2, 2025, regarding holding a meeting to discuss ongoing projects within AOPFN territory. A meeting was planned for October 3, 2025.

Between October 8 and November 23, 2025, Matrix Heritage and AOPFN corresponded over email regarding the details of the Stage 2 AA fieldwork and monitoring.

Hydro One emailed AOPFN on October 15, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. On October 30, 2025, Hydro One emailed AOPFN and informed them of an extension for the draft ESR review period to December 2, 2025.

On November 7, 2025, Hydro One called and emailed AOPFN to check in on their monitors who attended the Stage 2 AA fieldwork the previous day after an encounter during the fieldwork. Hydro One noted to reach out if there was any support they could offer the monitors.

On November 23, 2025, Matrix Heritage emailed AOPFN and notified them of a delay in the Stage 2 AA fieldwork due to inclement weather.

On November 27, 2025, AOPFN emailed Hydro One and requested an extension on the draft ESR review period from December 2 to December 15, 2025. Hydro One emailed AOPFN on December 2, 2025, to grant an extension on the draft ESR review period to December 15, 2025.

On December 12, 2025, AOPFN emailed Hydro One and provided their comments on the draft ESR. On January 19, 2026, Hydro One emailed AOPFN and thanked them for their comments on the draft ESR and provided their responses. Hydro One advised that additional materials would be made available for review in 2026, including the Environmental Management Plan, and the Environmental Effects Evaluation to be submitted to the NCC.

3.4.3.3. Kitigan Zibi Anishinabeg

On January 9, 2025, Hydro One emailed Kitigan Zibi Anishinabeg (KZA) to inform them that Hydro One started a Class EA for the Project. Hydro One offered participation in field studies and a briefing. Hydro One followed up with a phone call regarding the proposed Project description and gauged interest in the Project.

On September 15, 2025, Hydro One emailed KZA to provide them with the Stage 1 AA and Archaeological Overview Assessment for their review and comments.

Matrix Heritage emailed KZA on September 23, 2025, and indicated they had been retained to complete the Stage 2 AA for the Project and provided the proposed plan for the fieldwork. On October 8, 2025, Matrix Heritage emailed KZA and provided updated details on the Stage 2 AA fieldwork.

Hydro One emailed KZA on October 15, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025.

On October 30, 2025, Matrix Heritage emailed KZA and provided an update on the details of the Stage 2 AA fieldwork.

No further communications have been received from KZA to date.

3.5. Federal Organizations

As part of the consultation and engagement program for the Project, the following federal organizations were contacted during the Class EA Process:

- National Capital Commission (NCC); and
- Canadian National Railway (CN Rail).

These two organizations provided feedback, but no concerns were raised. Correspondence with both organizations is included in the Record of Consultation (**Appendix A-3**).

3.5.1. National Capital Commission

On July 29, 2024, Hydro One emailed the NCC and provided Project details, including a detailed description and map as an attachment. Hydro One stated they would be carrying out a Class EA under the provincial Class EA for TF and will comply with requirements of the IAA. Hydro One noted they would be initiating the Class EA process by sending out a Notice of Commencement soon. Hydro One indicated that part of the subject corridor is on NCC lands through which Hydro One has an existing easement and that as such, they feel that the NCC's early involvement and feedback is vital to the success of the Project. Hydro One noted that to that end, they have also submitted an application to begin the FLUDTA process.

On August 29, 2024, members of the Project team met with the NCC to discuss the proposed Project in a pre-consultation meeting. During the meeting, construction methods, potential issues and complications, and consultation requirements were discussed.

On October 9, 2024, the NCC provided meeting notes from the pre-consultation meeting that occurred on August 29, 2024. On October 18, 2024, Hydro One emailed

NCC to note that they had reached out to the City of Ottawa regarding the Brian Coburn Boulevard extension and that they would ensure that the new poles for the Project would not affect the City's plans and would coordinate access to the area.

On March 25, 2025, Hydro One emailed the NCC and provided an invitation to the Project's COH on April 9, 2025.

On May 28, 2025, Hydro One emailed the NCC and provided updates regarding the COH, fieldwork and preliminary design information. Hydro One inquired about the need to involve Environment and Climate Change Canada in the Project.

During the months of May, June and July 2025, Hydro One and the NCC corresponded to coordinate a site visit to the Project footprint and Hawthorne TS. On July 31, 2025, Hydro One and the NCC conducted a site visit to review the proposed Project design.

On August 1, 2025, the NCC emailed Hydro One and thanked them for the site visit the previous day. The NCC requested some information regarding Hydro One’s FLUDTA application.

On August 20, 2025, Dillon emailed the NCC and provided the Archaeological Overview Assessment report. Dillon requested comments on the report by September 10, 2025.

Hydro One emailed the NCC on October 17, 2025, and provided the Notice of Completion of the draft ESR and the 30-day comment period from October 20 to November 19, 2025. Hydro One indicated that the federal and provincial EA processes were separated for ease of review and that the draft ESR primarily pertains to provincial jurisdiction and welcomed NCC comments on the report.

On December 9, 2025, Hydro One met with the NCC to discuss Project updates, timelines, and approval process.

Hydro One emailed the NCC on January 5, 2026, and provided an overview of the Project, including Project need and anticipated schedule. Hydro One also provided preliminary design drawings and mapping. Hydro One requested the NCC’s endorsement of the Project prior to January 22, 2026. On January 19, 2026, the NCC emailed Hydro One and provided the signed FLUDTA review letter.

On February 13, 2026, the NCC emailed Hydro One to follow up on the tree planting plans for the Project. The NCC reminded Hydro One of the NCC’s requirements to submit a Tree Compensation Plan and a Landscape Plan. The NCC offered to have a

dedicated call to discuss the requirements. The same day, Hydro One emailed the NCC and confirmed their preference to have a dedicated call to discuss the requirements. On February 20, 2026, the NCC emailed Hydro One and inquired if they had a confirmed number of trees planned for removal. The NCC noted they would connect with Hydro One the following week. Hydro One emailed the NCC on February 23, 2026, and noted the tree numbers were provided in an excel sheet, and confirmed that the large trees on the slope near Highway 417 do not have to be removed.

3.5.2. Canadian National Railway

On August 30, 2024, Hydro One emailed CN Rail to introduce the Project and attached the Notice of Commencement. No response was received from CN Rail.

Hydro One emailed CN Rail on October 17, 2025, and provided the Notice of Completion of the draft ESR and the 30-day comment period from October 20 to November 19, 2025.

3.6. Provincial Government and Agencies

As part of the consultation and engagement program for the Project, the following provincial government representatives and agencies were contacted during the Class EA Process:

- Ministry of Citizenship and Multiculturalism (MCM);
- Ministry of Energy and Mines (MEM) (formerly Ministry of Energy, Northern Development and Mines);
- Ministry of Municipal Affairs and Housing (MMAH);
- Ministry of Natural Resources (MNR) (formerly Ministry of Natural Resources and Forestry);
- Ministry of the Environment, Conservation and Parks (MECP);
- Ministry of Transportation (MTO);
- Rideau Valley Conservation Authority; and
- South Nation Conservation.

Correspondence with provincial government and agencies is included in the Record of Consultation (**Appendix A-3**).

3.6.1. Ministry of Citizenship and Multiculturalism

On August 30, 2024, Hydro One emailed the MCM and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

On October 16, 2024, MCM responded to the Notice of Commencement with a reminder of Hydro One's responsibilities under the *Ontario Heritage Act* and Environmental Assessment, including the timing and sequencing of completion of technical cultural heritage studies.

Hydro One emailed the MCM on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. Hydro One noted that a Stage 1 AA had been completed for the Project and would be filed shortly, and that a Stage 2 AA was underway.

On November 25, 2025, the MCM emailed Hydro One and provided the MCM's comments on the draft ESR. On December 18, 2025, Hydro One emailed the MCM and provided a comment response table to the MCM. On January 20, 2026, MCM emailed Hydro One and noted they had reviewed Hydro One's responses and noted that not all of the comments were addressed. The MCM stated that the completion of a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (CHRECPIA) was a requirement under Hydro One's Identification & Evaluation Process, the *Ontario Heritage Act*, and the *Environmental Assessment Act*. On February 3, 2026, Hydro One emailed MCM and indicated they had replaced the Cultural Heritage Screening Memo with a CHRECPIA and updated the language in the ESR, noting the CHRECPIA would be appended to the ESR.

3.6.2. Ministry of Energy and Mines

On September 27, 2024, Hydro One emailed the MEM (previously the Ministry of Energy and Electrification) to inform them that Hydro One is commencing a Class EA for the proposed Orléans Area Reinforcement Project, in accordance with the Class EA for TF. As noted in **Section 3.4**, Hydro One attached a letter requesting the Ministry's determination on whether the proposed Project triggers the Crown's constitutional Duty

to Consult regarding Indigenous and Treaty rights. If so, they also inquired whether the Crown delegates procedural aspects of the Duty to Consult to Hydro One and the required level of consultation. A Project location map, Project description, and shapefiles of the proposed line with start and end points were attached for reference.

On December 13, 2024, a letter from the MEM provided specific delegation of procedural aspects of the Crown's Duty to Consult to Hydro One. The letter also advised that the following communities were required to be included in the consultation and engagement process, along with the level of consultation:

- Algonquins of Ontario;
- Algonquins of Pikwakanagan First Nation; and
- Kitigan Zibi Anishinabeg.

3.6.3. Ministry of Municipal Affairs and Housing (MMAH)

On August 30, 2024, Hydro One emailed the MMAH and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

No response has been received from the Ministry to date.

3.6.4. Ministry of Natural Resources (MNR)

On August 30, 2024, Hydro One emailed the Ministry of Natural Resources and Forestry (now MNR) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

On March 25, 2025, Hydro One emailed the MNR and provided an invitation to the Project's COH on April 9, 2025.

Hydro One emailed the MNR on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. On October 20, 2025, the MNR emailed Hydro One and requested Hydro One confirm whether they had received information regarding the MNR's commenting/regulatory role in response to the Project Notice of

Commencement. The MNR noted they wanted to ensure the MNR's information package was considered in the draft ESR and provided an information package. Hydro One responded the same day and noted they had not received an information package from the MNR in response to the Project Notice of Commencement but had received the same information package for other projects and that the information was considered during the drafting of the ESR. Hydro One noted they would reach out with any questions regarding potential approvals or permits.

No other correspondence has been received from the MNR.

3.6.5. Ministry of the Environment, Parks and Forestry (MECP)

On August 30, 2024, Hydro One emailed the MECP and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

Hydro One emailed the MECP on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025.

No response has been received from the MECP to date.

3.6.6. Ministry of Transportation (MTO)

On August 30, 2024, Hydro One emailed the MTO and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

The MTO replied on September 4, 2024, indicating that they would provide a response as soon as possible.

The MTO subsequently replied with a letter on September 25, 2024, indicating vertical clearance requirements for the Highway 417 crossing and that all pre-consultation, review, and approval requests should be submitted through the Highway Corridor Management Online Portal.

Hydro One replied on the same day, thanking the MTO for their comments and indicating that vertical clearance requirements would be passed on to the design engineer.

Hydro One met with the MTO to discuss the Project and specifically permitting for geotechnical work on November 6, 2024.

On March 24, 2025, Hydro One emailed the MTO and provided and invitation for the Project's COH on April 9, 2025. The MTO responded the same day thanking Hydro One for letting them know about the COH.

Hydro One met with the MTO on October 1, 2025, and discussed geotechnical permitting requirements for the Project.

Hydro One emailed the MTO on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. The MTO responded the same day acknowledging receipt of the notice and provided updated contact information for the MTO. Hydro One responded the same day acknowledging the updated contact information.

On January 5, 2026, Hydro One emailed the MTO and advised that Project construction is scheduled to begin in the fall of 2026. Hydro One requested confirmation of how much time the MTO requires to review and issue approvals for road crossing requests. On January 6, 2026, the MTO emailed Hydro One and indicated that the review process for encroachment permits typically takes four to six weeks after receiving a complete permit application. The MTO provided a link to the encroachment permit application webpage and an MTO contact for assistance throughout the application process. On January 7, 2026, Hydro One emailed the MTO noting they would complete the application and keep the MTO contact updated.

3.6.7. Rideau Valley Conservation Authority (RVCA)

On August 30, 2024, Hydro One emailed the RVCA and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement for the Project.

On March 25, 2025, Hydro One emailed RVCA to inform them about a COH for the Orléans Area Reinforcement Project on April 9th, attaching an invitation. They noted that the Project may cross several regulated areas within the RVCA watershed, including the Mer Bleue Bog, and inquired if RVCA would be interested in participating in the Class EA process. Hydro One offered to set up a meeting with the Project team or provide additional Project information and mentioned collaboration with the NCC through the FLUDTA process.

RVCA responded on March 27, 2025, to indicate that they would not be attending the COH and asked Hydro One to reach out for authorization for works within regulated areas.

Hydro One emailed the RVCA on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025.

No other correspondence has been received from the RVCA.

3.6.8. South Nation Conservation Authority (SNCA)

On August 30, 2024, Hydro One emailed SNCA and indicated that Hydro One was planning to build a new transmission line that will support growing electricity demand in the Orléans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for TF. Hydro One provided the Notice of Commencement.

On March 25, 2025, Hydro One emailed SNCA to inform them about a COH for the Orléans Area Reinforcement Project scheduled for April 9th. They attached an invitation and invited the SNCA to share any comments or questions in the meantime.

SNCA responded on March 28, 2025, indicating that the majority of the Project would fall within RVCA’s jurisdiction and to reach out if a watercourse alteration is anticipated.

Hydro One emailed the SNCA on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. The SNCA responded the same day and acknowledged receipt of the email.

No other correspondence has been received from the SNCA.

3.7. Municipal Governments

Consultation with municipal government included key department staff (e.g., Engineering, Public Works, Planning) and Ward Councillors at the City of Ottawa. Correspondence with the City of Ottawa is included in the Record of Consultation (**Appendix A-3**).

3.7.1. City of Ottawa – Municipal Staff

On August 30, 2024, Hydro One emailed the City of Ottawa indicating that they were beginning a Class EA for the Project and provided the Notice of Commencement.

On November 7, 2024, Hydro One emailed the City of Ottawa and mentioned that accommodating the Brian Colburn Boulevard crossing should not be a problem but would forward the design to their lines engineer for confirmation. Hydro One indicated that the design phase has just started, and pole locations are not yet determined, making this a good time for coordination. Hydro One expressed interest in meeting to discuss the overlap between the two projects and ensure that the new transmission line structures will not interfere with the extension. They anticipated having more information in the next few months.

On March 25, 2025, Hydro One emailed the City of Ottawa and provided an invitation to the COH. Hydro One noted that they were finalizing the pole locations and inquired if there were any drawings specifically of the area where the transmission lines cross over the Brian Coburn Boulevard extension. Hydro One noted they wanted to make sure their pole spacing would not interfere with the crossing location. Hydro One also informed the City of Ottawa that there are plans to start construction next spring and expressed the need to determine pole locations in the coming weeks to assess material needs, access routes, and areas requiring Stage 2 AA. Hydro One requested information on road allowance boundaries to ensure poles are outside future roadway areas and offered to set up a call with Project engineers for further discussion.

On April 10, 2025, Stantec, on behalf of the City of Ottawa emailed Hydro One and provided a CAD file of the proposed road corridor. Hydro One responded the following day and thanked Stantec for providing the file. On April 29, 2025, Hydro One emailed the City of Ottawa and requested the coordinate system used to create the CAD file. Stantec, on behalf of the City of Ottawa, responded the same day and provided the

details. On September 16, 2025, Hydro One met virtually with City of Ottawa staff and discussed the proposed structure locations and potential issues related to the Chapel Hill South Park and Ride light standards and the Brian Coburn Extension. On September 26, 2025, Hydro One emailed the City of Ottawa and requested the grading profile for the new road extension. On October 15, 2025, Stantec, on behalf of the City of Ottawa, emailed Hydro One and provided drawings and a CAD file for the Renaud Road realignment.

Hydro One emailed the City of Ottawa on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. The City of Ottawa responded the following day and thanked Hydro One for the update.

On November 7, 2025, Hydro One met with City of Ottawa representatives to discuss line clearances over two light standards within the Project area.

Hydro One emailed Stantec, working on behalf of the City of Ottawa, and requested a file in CAD format. On November 10, 2025, Stantec responded to Hydro One and provided a link to the requested files. Hydro One emailed Stantec on November 17, 2025, and confirmed receipt of the files.

No other correspondence has been received from the City of Ottawa.

3.7.2. City of Ottawa – Elected Officials

On August 20, 2024, Hydro One emailed City of Ottawa Councillor Kitts, Councillor Dudas and Councillor Bradley and their respective offices to provide information on the Project. Hydro One indicated they were beginning a Class EA for the Project and provided the Notice of Commencement. Hydro One stated that over the following weeks they would be sending out the Notice of Commencement via mail and newspaper ads within the Project study area and that they would be hosting a COH in the area to meet with community members and answer any Project-related questions. Hydro One noted that in advance of the meeting they would like an opportunity to brief the Councillors on the Project and upcoming plans. Hydro One noted they would reach out once they have more information on the EA.

On March 17, 2025, Hydro One emailed Councillor Dudas, Councillor Kitts and Councillor Bradley of the City of Ottawa and followed up to provide an update on the

Project. Hydro One indicated that in 2024, Hydro One initiated a Class EA for the Project and that initially they were planning to host a COH in the fall, but due to a schedule shift were hosting the COH on April 9, 2025, and invited the Councillors to attend. Hydro One provided the details for the COH and noted that at the event, Hydro One would be providing details about the Class EA process, Project timelines, and preliminary information about construction. Hydro One offered to arrange a phone meeting in advance of the COH to discuss Project details with the Councillors, if they were interested.

On April 17, 2025, Hydro One emailed Councillor Dudas, Councillor Kitts and Councillor Bradley of the City of Ottawa to provide feedback from the COH. Hydro One noted that the COH was attended by 10 people and that their feedback was positive, also noting that project updates will continue to be provided.

Hydro One emailed Councillors Dudas, Bradley, and Kitts of the City of Ottawa on October 17, 2025, and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025.

On October 16, 2025, the office of Councillor Kitts of the City of Ottawa emailed Hydro One and noted they would share Project information with residents and requested a briefing on specific Project details, requesting the briefing the second week of November.

On October 17, 2025, the office of Councillor Dudas of the City of Ottawa emailed Hydro One and thanked them for the information on the draft ESR.

On November 20, 2025, Hydro One provided a Project briefing virtually to Councillor Kitts.

No other correspondence has been received from municipal elected officials.

3.8. Potentially Affected and Interested Groups, Businesses, School Boards and Utilities

Consultation and engagement opportunities were provided to potentially affected and interested groups, businesses, school boards and utilities throughout the Class EA process.

As part of the consultation and engagement program, approximately 40 potentially affected and interested groups, businesses, school boards and utilities were contacted during the Class EA process. A complete list of the interest groups is provided in the contact list in **Appendix A-1**.

Correspondence with potentially affected and interested groups, businesses, school boards and utilities is included in the Record of Consultation (**Appendix A-3**).

3.9. Property Owners/Residents/General Members of the Public

As outlined in **Section 3.1** and **Section 3.3**, property owners, residents, and general members of the public within the LSA were provided Project notifications by means of email, Canada Post admail, hand delivery, advertisements in local newspapers, radio, social media, and the Project website.

Before the COH, Hydro One sent packages to potentially affected landowners along the preferred route noting the specific property affected. The packages included an invitation to the open house, tile maps showing anticipated property impacts, links to interactive maps, and contact information for any further questions. These were delivered via registered mail.

Throughout the Class EA process, one member of the public asked about the Project area via email by providing a marked-up map, and Hydro One responded indicating the correct Project area.

On March 28, 2025, a member of the public inquired whether a buried line was considered for the Project. The member of the public inquired what criteria was used to choose poles versus a buried line, the comparable costs, and the environmental failure rate for poles over buried lines. Hydro One emailed the member of the public on May 15, 2025, to respond to their questions and indicated that burying transmission lines can be disruptive to the environment given the magnitude of construction work that would be required. Hydro One noted that burying transmission lines comes at significantly higher costs than poles and presents additional maintenance challenges.

On October 15, 2025, Hydro One emailed the members of the public on the contact list and provided the Notice of Completion of the draft ESR and details of the 30-day comment period from October 20 to November 19, 2025. No further concerns were raised by members of the public and/or property owners.

On October 15, 2025, a member of the public emailed Hydro One stating their support for the Project, noting the Orléans area is growing and needs additional hydro capacity.

On October 15, 2025, a member of the public emailed Hydro One and indicated they had read the notice delivered to their house and had a few questions. The member of the public inquired regarding the need for the Project, whether other options had been considered, how close the transmission line structures would be to homes, schools, and parks, if there would be noise or construction disruptions due to construction, and how residents' feedback would be incorporated into the Project. Hydro One emailed the member of the public on October 20, 2025, responding to the member of the public's questions and provided a link to the draft ESR.

On October 15, 2025, a member of the public emailed Hydro One and requested confirmation of the meaning of the preferred route, and whether the Project would impact their property. On October 20, 2025, Hydro One emailed the member of the public and clarified the meaning of the preferred route and provided a link to the Project interactive map and draft ESR.

On October 22, 2025, a member of the public emailed Hydro One and inquired regarding potential health impacts to nearby residents, noise disruptions, and whether there would be additional costs to Hydro One customers. Hydro One emailed the member of the public the same day, responding to their questions and provided resources regarding transmission lines and Electric and Magnetic Fields (EMF).

On November 7, 2025, a member of the public emailed Hydro One and inquired regarding potential exposure to EMF, and EMF-related mitigation measures. Hydro One emailed the member of the public on November 11, 2025, and responded to the member of the public's questions and provided resources regarding transmission lines and EMFs.

3.10. Summary of Stakeholder Comments and Concerns

Comments and concerns from members of the public included questions regarding the choice to construct the transmission line with poles rather than burying the line, questions related to EMF, noise and traffic impacts, how public feedback would be incorporated into the Project, and clarifying questions regarding the preferred route.

Members of the public also expressed support for the Project, noting the need for additional hydro capacity in the Orléans area.

During the review period, two members of the public requested printed copies of the draft ESR. Printed copies of the draft ESR were mailed to these individuals as requested.

The City of Ottawa and the NCC indicated that the Brian Coburn Boulevard extension is planned in the area, and the Project must accommodate this work. Hydro One's real estate representatives have continued to work with directly affected landowners on matters specific to their property.

Comments and concerns raised during the draft ESR comment period and Hydro One's responses are presented separately in **Section 3.11.1**.

3.11. Notice of Completion and Draft ESR Comment Period

Hydro One provided a 30-day comment period from October 20 to November 19, 2025, to allow sufficient time for review and comment on the draft ESR. Written comments regarding the draft ESR were submitted to:

Jeff Hankin, Environmental Planner, Hydro One Networks Inc.

483 Bay Street, North Tower, 14th Floor

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The draft ESR was available electronically on Hydro One's Orléans Area Reinforcement Project web page: http://hydroone.com/orleans. Hard copies were provided upon request by contacting Hydro One via the contact details provided above. Two members of the public requested hard copies of the draft ESR, and they were delivered via courier the week of October 27, 2025.

The Notice of Completion was distributed as follows to indicate the draft ESR was complete and available for review:

- Hydro One emailed the notice to Indigenous communities on October 15, 2025;
- Hydro One emailed the notice to 10 affected property owners during the week of October 13, 2025;

- The notice was emailed to the Project contact list by Hydro One during the week of October 13, 2025;
- Dillon coordinated the hand delivery of the invitation to residences within the LSA the week of October 13, 2025; and
- The notice was posted in the Orléans Star on October 23 and November 6, 2025.

Comments and concerns received by Hydro One during the draft ESR review were recognized, considered, addressed, and documented. Hydro One provided an extension to the draft ESR comment period for AOO and AOPFN to provide more time for fulsome reviews. The ESR has been finalized for the proposed Project in accordance with the Class EA.

The final ESR has been filed with the MECP and was made available on the Project website http://hydroone.com/orleans. The Project is considered acceptable to proceed as outlined in the ESR.

The *EA Act* has provisions that allow interested parties to request MECP order a higher level of study (i.e., requiring comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g., require further studies). Requests may only be made on the grounds that the requested order may prevent, mitigate, or remedy adverse effects on constitutionally protected Aboriginal and Treaty rights. This process is referred to as a Section 16 Order request and must be sent in writing or email to the MECP, copying Hydro One.

No Section 16 Order requests were received by the MECP or Hydro One relating to the Project, as such, the Project will proceed as outlined in this ESR:

3.11.1. Draft ESR Review Period

Comments received from Indigenous communities and other stakeholders on the draft ESR, and responses provided by Hydro One are captured in **Table 3-1**, **Table 3-2**, and **Table 3-3**.

Table 3-1: Comments from AOPFN on Draft ESR and Hydro One's Responses

No.	ESR Section Reference	AOPFN Comment and Request	Hydro One Response
1.	7.1.2 Soil Compaction; 7.1.3 Soil Mixing	The ESR identifies that soil compaction and soil mixing are potential effects to agricultural lands. Construction activities include use of heavy machinery and excavation. The ESR notes that soil compaction may occur during both the construction and operation/maintenances phases of the project. Soil compaction and soil mixing affects not just agricultural lands, but lands supporting native vegetation as well. While the ESR does not provide information on where ground disturbing activities will occur, we assume that some of the native plant communities will be disturbed for construction activities and will then be restored once construction is finished. Soil compaction and mixing will affect how well native plant communities are able to regenerate. Invasive plants and grasses are very good at establishing in poor soil quality and then inhibit the growth of native trees and shrubs, some of which may be important cultural plants for AOPFN. Hydro One should provide more information on how it will carefully manage the re-establishment of plant communities in disturbed areas by ensuring soils are replaced and de-compacted and that trees and shrubs consistent with the pre-disturbance plant community are planted.	Access routes will be graveled, reducing the potential for compaction. If soil compaction or rutting occurs outside of the graveled access routes, measures would be implemented to relieve compaction in those areas. The only areas to be disturbed outside of vehicle access (graveled), are the structure foundations. Most of the transmission line is in an existing corridor, so there is minimal vegetation removal required, apart from the required new corridor areas located north of the Hawthorne TS and on the east side of Hwy 417. Compatible vegetation (e.g., pollinator grass seed mix and/or shrubs) will be planted within disturbed areas in the transmission line ROW. Hydro One will compensate for lost trees according to NCC requirements. Compensatory trees would be planted outside of the transmission line ROW to maintain safe clearances.
2.	4.6.6.8 Non-Native and Invasive Plant Species; 7.7.4.2 Vegetation Removals and Soil Rutting	The ESR identifies that nine invasive species were observed and identified within the PSA. Given that the project requires disturbance of soil (see s. 7.7.4) and earthworks, there is a risk of further invasive plant establishment in areas cleared of native vegetation. Throughout the ESR there is indication of healthy native woodland plant communities. If these are disturbed for temporary activities they need to be re-established once those activities are finished. Hydro One should provide more information on how it will carefully manage the re-establishment of plant communities in disturbed areas by ensuring soils are replaced and de-compacted and that trees and shrubs consistent with the pre-disturbance plant community are planted. Herbicide should not be the main option for stopping the spread of invasive plants.	The primary measure for preventing the spread of invasive plants is to adhere to the Ontario Invasive Plant Council Clean Equipment Protocol for Industry (2016). The Project team is considering options for controlling and removing existing invasive species in the transmission corridor, including physical removal and herbicide use.
3.	7.7.4.2 Vegetation Removals and Soil Rutting	The ESR indicates that vegetation will be removed throughout the transmission line ROW, and presumably for construction of gravel access roads. Section 7.7.4 indicates that earthworks may be required for construction of temporary access roads, laydown areas, and pulling pads. Soil and aggregate materials will be stockpiled on the land as well.	As noted above, trees cannot be planted in the ROW as they are not compatible with safe transmission line operation. Hydro One will include AOPFN in discussions regarding the selection of native seed mixes and compatible vegetation for lands within the ROW. Off-site compensation for trees will be determined according to NCC requirements.

No.	ESR Section Reference	AOPFN Comment and Request	Hydro One Response
		AOPFN is concerned about these activities resulting in permanent changes in vegetation communities within the project area. Anytime vegetation is cleared and soil is disturbed, there is a high risk that the original vegetation will be displaced with non-native invasive species or grasses. AOPFN notes that there is no indication of where temporary access roads or laydown areas will be constructed on the maps provided. However, there are many photographs throughout the ESR that show what look like healthy forested communities. Where forested communities are disturbed and then restored, efforts should be made to ensure that native plant communities are re-establishing. Hydro One should plant shrubs and trees and not grasses, unless there are critical soil stability issues that need to be resolved. Grasses can establish in poor soils and will stop tree and shrub growth. Vegetation planted should include trees that are consistent with the surrounding plant communities and the plant communities that were disturbed as part of the construction phase.	
4.	7.7.7.5 Wildlife and Significant Wildlife Habitat - Effects to Bats	AOPFN understands that through the Provincial Endangered Species Act, the Proponent must compensate for the maternity roosting habitat that is lost and that compensation projects are developed through work with the Ministry of the Environment, Conservation and Parks. AOPFN is interested in learning more about how impacts to bat maternity roosts will be mitigated. AOPFN would like to see Hydro One's compensation plan for the loss of maternity and day roost trees. No trees suspected of being used for maternity roosts should be removed until a permit is in hand. Any tree that is deemed potential habitat for SAR bats should be considered confirmed habitat unless it is confirmed that it is not being used by SAR.	There are five (5) trees requiring removal that could potentially be maternity and day roost habitat. These trees are in the new corridor area on NCC lands, just east of Highway 417 between existing transmission lines. Hydro One is in discussions with NCC and ECCC about potential permit requirements. Hydro One has proposed the installation of bat boxes to offset the loss of bat habitat trees.
5.	4.6.6.2 Wetlands - Effects to Mer Bleue Bog	The ESR states that the Mer Bleue Bog overlaps with the Project Study Area. It is not clear what project activities will be occurring near the Mer Bleue Bog, which is a Provincially Significant Wetland (see p. 79 of this document). There is no information provided about what project activities may be undertaken in the vicinity of the bog or how effects to the bog will be mitigated. While this lack of information may be because the portion of the project area that is within the bog is on federal lands and this document is in respect of a provincial document, AOPFN is interested in more information on how the bog will be protected throughout project activities. AOPFN requests that Hydro One provide more information about project activities occurring near the Mer Bleue Bog, including any mitigations that will be put in place to protect it.	Potential effects of the Project on the Mer Bleue Bog will be assessed in the Environmental Effects Evaluation being prepared for the NCC. This assessment can be shared with AOPFN when it is complete. To avoid and minimize effects on the wetlands and SAR habitat associated with the Mer Bleue Bog, construction in this area will be conducted in the winter, when the wetlands are frozen, using rigging mats to further reduce potential for disruption and reduce the potential need to create an ice road. It is anticipated, based on the current preliminary design, that 9-12 m² of wetland may be removed to accommodate pole structures. Temporary access and culverts may be required in other areas, resulting in a minor loss of wetland area during construction. No loss of wetland function is anticipated.

No.	ESR Section Reference	AOPFN Comment and Request	Hydro One Response
			ECCC and the RVCA will be engaged as key stakeholders in discussions regarding wetland impacts and the development of mitigation/compensation plans. Any compensation or mitigation measures recommended by ECCC and RVCA will be included in the Environmental Management Plan.
6.	7.0 Potential Effects and Mitigation Measures - Location of disturbances	The ESR indicates that construction activates will include removal of vegetation, installation of gravel access routes, laydown areas. As none of these activities are identified on the maps provided, it is not clear where temporary or permanent disturbed areas will be or what plant communities will be permanently or temporarily removed from the project area. AOPFN would like to see updated maps with locations of temporary and permanent access routes, as well as equipment laydown areas and other disturbance areas associated with construction.	Hydro One will provide more detailed maps.
7.	7.7.7.5 Wildlife and Significant Wildlife Habitat	AOPFN understands that project activities include two water crossings, on Mud Creek and Ramsay Creek. These creeks contain Candidate Significant Wildlife Habitat as identified in Appendix B-3. The Fish and Aquatic Habitat section of the ESR doesn't address potential effects to turtle habitat. As the turtles in the area are species of special concern, and the two watercourses are identified to be Candidate Significant Wildlife Habitat (Appendix B-3, p. 9; PDF p. 390), Hydro One should carry out an assessment of how project activities will affect turtle habitat and develop mitigations for those effects. Any habitat that is identified as "candidate" Significant Wildlife Habitat should be considered confirmed Significant Wildlife Habitat. AOPFN would like an opportunity to review the specific mitigations developed to protect turtle habitat.	Potential effects of the Project on turtles will be assessed in the Environmental Effects Evaluation being prepared for the NCC. This assessment can be shared with AOPFN when it is complete. Effects on turtles and turtle habitat are expected to be minimized by constructing in wetlands during the winter under frozen conditions. ECCC will be issuing a Letter of Advice in relation to SAR turtles and turtle habitat and any mitigation measures recommended by ECCC will be included in the Environmental Management Plan.
8.	7.0 Potential Effects and Mitigation Measures - Application of mitigation measures	The ESR lists seven guiding principles for selection of mitigation measures. Several of these mitigations are implemented only "where practical" or "where feasible", but it is not clear how it is determined what is feasible or practical. The proponent needs to take every measure possible to avoid sensitive areas, water crossings, and sensitive time periods. AOPFN would like more information on how decisions about practicality and feasibility of mitigation measures will be made.	Technical feasibility is determined in consideration of the conditions in the field. The contractor may not be able to implement specified mitigation measures in certain situations and other options may need to be considered. Determination of appropriate mitigation measures may include seeking input from biologists or other qualified professionals, depending on the circumstances.

Table 3-2: Comments from AOO on the Draft ESR and Hydro One's Responses

No.	ESR Section Reference	AOO Comment and Request	Hydro One Response
1.	4.6.6.2 Wetlands - Effects to Mer Bleue Bog	The AOO is concerned for potential impacts to the Mer Bleue Bog generally, including portions of the Areas of Natural and Scientific Interest (ANSI) that appear to overlap with the Project areas. The AOO is concerned for potential impacts to the stream systems flowing through the transmission corridor, bringing water to the bog. Wetlands are culturally significant environments to the AOO, and water is the lifeblood of these environments. As the traditional stewards of the lands and water in Algonquin territory, the AOO always places great emphasis on the protection of water quality, flow, and wetland habitat through project consultation. It is important that all stream crossings along the transmission corridor are mitigated in such a manner that any crossing design, or equipment using these crossings, do not impede flow or cause erosion to the riparian environment. Any work completed in or around wet areas or stream crossings should be completed at times of year when potential impacts (e.g., bank erosion) can be minimized. The AOO request confirmation of the mitigation that will be implemented to avoid potential impacts to the streams following across the transmission corridor, including mitigation to hydrological impacts to the Mer Bleue Bog ANSI. The AOO request confirmation of any monitoring strategies that will be implemented specific to the mitigations.	Thank you for your comment. Hydro One recognizes the cultural and ecological importance of wetlands, including the Mer Bleue Bog and ANSI, and will prioritize avoidance and mitigation of effects to watercourses within and adjacent to the existing transmission corridor. Minimal vegetation removal will be required to cross watercourses with conductors since most of the new transmission line is located within an existing corridor with compatible vegetation. Potential impacts would mainly be from crossing streams with equipment. To prevent or mitigate these impacts, where feasible, the Project will avoid new crossings by using existing crossings and/or accessing the corridor from either side to reduce the interaction with watercourses or using off-corridor access routes along existing trails. Where watercourse crossings cannot be avoided, formal crossings will be installed as vehicles are not allowed to drive across streams without a formal crossing in place to prevent sedimentation and bank erosion. Two watercourse crossings cannot be avoided due to access constraints. Crossing methods will be confirmed through detailed design and will be selected to minimize sedimentation, erosion, and hydrologic effects. Mitigation measures include appropriate culvert sizing and embedment to ensure fish passage, placing end protection at inlets and outlets to reduce the possibility of erosion, use of straw bales, silt fence, or silt curtain to reduce sediment load, or dam-and-pump crossing methods. Any necessary permits, reviews, or authorizations will be obtained for crossings and culvert replacements. A qualified Hydro One environmental specialist is usually on-site during the installation of watercourse crossings to ensure fish relocation is carried out, and if necessary, permit conditions are adhered to, and sediment control measures are in place. Hydro One can provide a mitigation plan for these two crossings when it is assessed during detailed design.
2.	7.7.4.2 Vegetation Removals and Soil Rutting	The AOO has concerns regarding tree/vegetation clearing activities that will take place along the transmission corridor ROW. It is important to the AOO that forested/vegetated environments are impacted as little as possible and that clearing is minimized and restricted to the exact delineation of the transmission corridor ROW. This will greatly reduce potential impacts to forested and vegetated wildlife habitats. Construction laydown areas should be contained within open environments within or adjacent to the ROW.	Thank you for your comment. Hydro One will minimize vegetation removal to the extent possible. The existing corridor generally supports compatible vegetation (typically vegetation under 3 metres) that does not interfere with the reliability of the lines. Hydro One will schedule vegetation management outside of bird nesting period (early April to late August). The limits of tree clearing will be clearly marked using flagging

No.	ESR Section Reference	AOO Comment and Request	Hydro One Response
		The AOO request confirmation of the specific mitigations that will be implemented to minimize vegetation and tree clearing and that any clearing will be completed outside the bird breeding and nesting season windows.	and stakes prior to work. Construction of work pads and stringing pads will be confined within the corridor.
3.	7.7.7.5 Wildlife and Significant Wildlife Habitat - Effects to raptors	The AOO has concerns for raptor wintering habitat areas. Raptor wintering habitat is identified within and adjacent to the transmission corridor ROW. The AOO is concerned for impacts to various raptor species during winter months, when energy conservation is critical to their survival, through disruption from Project activities (e.g., vehicle and machinery use and construction). The AOO is not confident that appropriate winter raptor surveys have been performed to identify raptor presence and use of these habitat areas. These surveys which should be completed at multiple times throughout the winter. The AOO request confirmation of the specific mitigations that will be implemented to minimize disturbance to these habitats and wintering raptor species, as well as confirmation that wintering raptors surveys have been or are being completed.	Thank you for your comment. Raptor wintering habitat was not confirmed during field investigations. However, candidate (i.e., potential) habitat was identified since the Project study area and contiguous lands includes a large mosaic of forest, woodland, thicket, meadow, and agricultural vegetation communities which meet the minimum size threshold of 20 hectares identified in the MNRF's Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. To be significant, a site must be demonstrated to be used regularly (3 out of 5 years), and must meet certain thresholds for species of raptor, abundance, and number of days present. Since the Mer Bleue area is well studied, and since significant raptor wintering areas were not identified during background review of extensive consultation, it is probable, but cannot be confirmed, that significant raptor wintering habitat is absent. However, under a precautionary approach, recommended avoidance and mitigation measures have been incorporated into Project design including avoiding treed areas and tree removals to the extent possible and utilizing existing ROWs to minimize overall vegetation management. These measures minimize noise and visual disturbance, as well as changes to existing habitat. It should be noted that the minimal tree clearing that is proposed does not diminish the total area of habitat available to raptors.
4.	4.6.6.6 Ecological Land Classification - Vegetation surveys	The AOO has concerns for Project surveys that were completed to document flora in the study area. The species list appears insufficient with too few species documented in order to adequately represent and document flora diversity within the study area. The AOO request that additional flora surveys be completed at the appropriate time of year and that community monitors from AOO communities are invited to participate in these surveys with the consultants.	Thank you for your comment. We can clarify that the botanical species that are referenced in the ESR are the species that were observed on the non-federally (National Capital Commission) owned lands only. These areas outside of NCC lands, as identified in the ESR, are dominated by cultural and constructed habitats (e.g., meadows, thickets, roads, transmission corridors, residential and commercial areas) and support a reduced botanical diversity, compared to the federally owned lands. For comparison, fifty (50) botanical species were observed on the non-federally owned lands versus 157 plant species that were identified on federally owned lands as part of the Project surveys. Further, Dillon and Hydro One completed a background review and extensive consultation which determined that the botanical species of the Mer Bleue area have been well studied over a number of decades. As such, we are of the opinion that additional botanical surveys are not required. We would be happy to provide the list of botanical species observed on the federally owned lands.

Table 3-3: Comments from the MCM on the Draft ESR and Hydro One's Responses

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
1.	Throughout the ESR	The term 'cultural heritage resources' includes archaeological resources, built heritage resources, and cultural heritage landscapes. For consistency, MCM recommends using the correct terminology when referring to each one, and the term "cultural heritage resources" when referring to all three types. We recommend revising the terminology of the ESR.	Revision to Report.	The Final ESR will be revised to refer to the correct terminology.
2.	1.4.4 Other Permits, Licenses and Approvals Table 1-1: Potentially Required Permits, Licenses and Approvals	MCM recommends adding the *Ontario Heritage Act* as a row within Table 1.	MCM recommends that the title of this section be revised to "Other Permits, Licenses ~~and~~ Approvals **and Regulatory Requirements**". MCM recommends that the row "Archaeological Acceptance Letters" be replaced as follows: Permit, License, Approval **or Regulatory Requirements: *Ontario Heritage Act – Entry of Archaeological Assessment Reports into the Ontario Public Register of Archaeological Reports*** Description**:** Archaeological assessment **for any area of archaeological potential that could be impacted by the project** is required **to be carried out by a licensed archaeologist** prior to **any** ~~undertaking new~~ ground disturbance **activities** ~~in areas with archeological potential~~. Permit, License, Approval **or Regulatory Requirements: *Ontario Heritage Act – Completion of Cultural Heritage Report:*** ***Existing Conditions and Preliminary Impact Assessment and other technical cultural heritage studies, as required.*** ***Description:*** "**Hydro One as a prescribed public body is required comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties (issued under Section 25.2 of the OHA) including its approved Identification and Evaluation (I&E) Process and completion of technical cultural heritage studies.**	The Final ESR will be revised to reflect comments.
3.	3.6.1 Ministry of Citizenship and Multiculturalism	Please revise this section to acknowledge MCM's response to the notice of commencement on October 16, 2024.	MCM recommends adding the following text:	The text will be added to the Final ESR.

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
			On October 16, 2024, MCM responded to the Notice of Commencement with a reminder of Hydro One's responsibilities under the *Ontario Heritage Act* and Environmental Assessment, including the timing and sequencing of completion of technical cultural heritage studies.	
4.	4.3 Cultural Heritage Resources	MCM recommends that Hydro One's responsibilities under the *Ontario Heritage Act* be clearly articulated in the introductory paragraphs.	MCM recommends adding the following text: Hydro One Networks Inc. is a public body prescribed under Ontario Regulation 157/10 and is required to comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties (issued under section 25.2 of the *Ontario Heritage Act*).	The text will be added to the Final ESR.
5.	4.3.1 Archaeology	Please see the cover letter comments. Please note that the findings and recommendations of the Stage 1 AA is preliminary until the report is entered into the Register. We recommend that this section be revised to refer to the Project Information Form (PIF) number and to include the status of the Stage 1 AA. This section should describe the existing conditions as it related to archaeological resources and will be based on the AA report(s) completed and to include: • A brief overview of all stages of archaeological assessment undertaken (Stage 1, 2) and the objective of the stage of assessment. The outcomes (conclusions and recommendations) of the AA completed in support of this undertaking. All associated PIF#s, AA report(s) and MCM letter(S) indicated that the report has been entered into the Ontario Public Register of Archaeological Reports. MCM may have additional comments on this Section once the Stage 1 AA report has been entered into the Ontario Public Register of Archaeological Reports. Proponents must follow the recommendations of the AA report(s). MCM recommends that further stages of archaeological assessment (e.g., Stage 2) be	MCM recommends replacing the text under Section 4.3.1 with the following: It may be appropriate to revise the title of the section to 'Archaeological Resources', which would also align with section 7.3. [If an expedited review is requested, and the Stage 1 AA is entered into the Register, please include the following:] A Stage 1 archaeological assessment (under Project Information Form number P37-0106-2024) was undertaken on **June 23, 2025,** by Matrix Heritage Inc. for the Orleans Area Reinforcement Project. A Stage 1 AA consists of a review of geographic, land use and historical information for the property and the relevant surrounding area, and contacting MCM to find out whether, or not, there are any known archaeological sites on or near the property. Its purpose is to identify areas of archaeological potential and further archaeological assessment (e.g., Stage 2-4) as necessary. The Stage 1 has been entered into the Ontario Register of Archaeological Reports, the AA is included in Appendix B. *[Then include the outcomes and recommendations of the report, as in Executive Summary, e.g., a Stage 2 AA recommended for part(s) of the Study Area].* *[Please clarify if the federal lands have been included in this Stage 1 AA].* A Stage 2 AA is planned to be completed on provincially regulated lands in the PSA in accordance with the recommendations of the Stage	The Final ESR will be revised as recommended. Please note that Stage 2 AA fieldwork began in the fall of 2025 and will be completed in spring 2026.

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
		undertaken as early as possible during detailed design and prior to any ground disturbing activities.	1 report, **as early as possible during detailed design and prior to any ground disturbance activities** ~~construction of the Project~~. Hydro One will invite Indigenous communities and groups to participate and review the Stage 2 AA.	
6.	4.3.2 Cultural Heritage Screening	MCM recommends revising the title of this section from “Cultural Heritage Screening” to “Built Heritage Resources and Cultural Heritage Landscapes” to align with current terminology. Please see our cover letter comments. The Cultural Heritage Screening Memo should be replaced by a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (“Cultural Heritage Report”), and the ESR should be revised to reflect the findings and recommendations of the Cultural Heritage Report. MCM may have additional comments. Please ensure mapping is included to show the locations of the potential BHRs and CHLs along the preferred route.	MCM recommends that these paragraphs be replaced with the findings of the section Existing Conditions of the Cultural Heritage Report as follows: 4.3.2 Built Heritage Resources and Cultural Heritage Landscapes A Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment was undertaken on **[date]** by **[heritage consultant]** for **[name of project or study area]**. The assessment for this report consisted of data collection, background historic research, review of secondary source material and field review. A total of # (known and potential) built heritage resources and cultural heritage landscapes and built heritage resources were identified within or adjacent to the rail corridor as listed below. [If a CHER/HIA is recommended as part of the CHEC and PIA recommendations include the following text:] *Cultural Heritage Evaluation Reports were recommended for the # properties that could be directly impacted. All CHERs were undertaken on [date] by [heritage consultant]. The Cultural Heritage Report-Existing Conditions and Preliminary Impacts Assessment and CHERs are included in Appendix X.*	Hydro One has replaced the Cultural Heritage Screening Memo with a CHRECPIA and has updated the language in the ESR. The CHRECPIA is appended to the Final ESR.
7.	7.3 Archaeological Resources	Section 7.0 includes a description of potential effects and mitigation measures for each aspect of the environment, including cultural heritage resources. See comments in the cover letter and above. We recommend revising Section 7.3. for clarity and to specify the timeline for the completion of the Stage 2 AA (and further stages of AA, if recommended). This section should also align with some information included in Section 4.3.1. In addition, this section should be revised to align with the requirements of the Ontario *Heritage Act* and the *Funeral, Burial and Cremation Services Act*.	MCM recommends the following additions and revisions: ~~In the event archaeological material is encountered during construction, all activities with the potential to affect these materials will cease immediately and a licensed archaeologist will be engaged. Notification of such findings on provincially regulated lands will be communicated to MCM.~~ ~~In the event that human remains are encountered, Hydro One will immediately stop work in area, notify the local police, the coroner’s office, MCM, and the Registrar of Cemeteries.~~ **The recommendations of the Stage 1 archaeological assessment (AA) will be followed. Any further recommended assessment (e.g.,**	The Final ESR will be revised as recommended.

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
			Stage 2, 3, and 4 AAs) will be completed as early as possible in the detailed design phase and prior to any ground disturbing activities. **Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the Ontario Heritage Act.** **The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out an archaeological assessment, in compliance with Section 48(1) of the Ontario Heritage Act.** **The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 requires that any person discovering human remains must cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with Ontario Regulation 30/11 the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial sites. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at archaeology@ontario.ca) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.** In addition, all Indigenous communities that have an interest in the Project and/or location will also be immediately contacted so that, in the event such remains are Indigenous in origin, protocols can be established.	
8.	7.4 Cultural Heritage Resources	See comments in the cover letter above. MCM recommends revising the title of this section from “Cultural Heritage Resources” to “Built Heritage Resources and Cultural Heritage Landscapes” to align with current terminology. This section should be revised to describe the potential effects and mitigation measures on known and/or potential built heritage resources and cultural	MCM recommends replacing all the paragraphs with the following: A Cultural Heritage Report: Existing Conditions and Preliminary Impacts Assessment was undertaken on **[date]** by **[heritage consultant]** for **[name of project or study area]**. A total of # (known and potential) built heritage resources and cultural heritage landscapes were identified within or adjacent to the study area. The following table provides a brief description of the anticipated project impacts based on the preliminary design. The table also describes the mitigation measures and recommendations included in the technical study.	The title of section 7.4 of the ESR has been updated to “Built Heritage Resources and Cultural Heritage Landscapes”. The language of this section has also been updated to reflect the recommendations of the CHRECPIA.

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
		heritage landscapes based on the findings and recommendations of the Cultural Heritage Report. This section should also be revised to clearly outline the recommendations and timing of any future technical cultural heritage studies required (i.e., Cultural Heritage Evaluation Reports, Heritage Impact Assessments).	[*include table from the Cultural Heritage Report]*	
9.	Table 7-1 Summary of Potential Effects, Mitigation Measures, and Net Effects	MCM recommends revising Table 7-1 Summary of Potential Effects, Mitigation Measures and Net Effects to include the recommendations mentioned in the cover letter and above.	MCM recommends the following revisions: Environmental Concern: Archaeological Resources Project Phase & Potential Effects: **Detailed Design and** Construction: Disturbance **or destruction of** ~~to lands with potential to support~~ archaeological resources. Mitigation Measures: • **Avoid and protect an archaeological site as a preferred alternative.** • **Archaeological assessments to be carried out by a licensed archaeologist as early as possible during** • **detailed design and prior to any ground disturbance activities.** • **All associated archaeological assessment reports shall be entered into the Ontario Public Register of Archaeological Reports prior to any ground** • **disturbing activities.** • **Proponents must follow the recommendations of the archaeological assessment report(s).** **Discovery of undocumented archaeological resources and/or human remains will follow the provisions of the Ontario Heritage and the Funeral, Burial and Cremation Services Acts.**	The Final ESR will be revised as follows: Environmental Concern: Archaeological Resources Project Phase & Potential Effects: **Detailed Design and** *Construction: Disturbance* ***or destruction of*** ~~*to lands with potential to support*~~ *archaeological resources* *Mitigation Measures:* • ***Avoid and protect an archaeological site as a preferred alternative.*** • ***Archaeological assessments to be carried out by a licensed archaeologist as early as possible during detailed design and prior to any ground disturbance activities.*** • ***All associated archaeological reports will be entered into the Ontario Public Register of Archaeological Reports. If timelines allow, an expedited review request will be submitted and reports entered into the Ontario Public Register of Archaeological Reports prior to ground disturbing activities.*** • ***Hydro One will follow the recommendations of the***

No.	ESR Section Reference	MCM Comments & Rationale	Proposed Action/Solution	Hydro One Response
			Characterization of Net Effects and Determination of Significance: ~~No net effects are predicted.~~ **Net effects are predicted not to be significant.** Additional archaeological ~~investigations~~ **assessments** will be completed **as early possible during the detailed design and prior to any ground disturbing activities**. Environmental Concern: ~~Cultural Heritage Resources~~ **Built Heritage Resources and Cultural Heritage Landscapes** Mitigation Measures: please revise to include the recommendations of the Cultural Heritage Report. Characterization of Net Effects and Determination of Significance: please revise to include the findings and recommendations of the Cultural Heritage Report (and other technical cultural heritage studies, if recommended). Environmental Concern: Indigenous Culture, Values and Land Use. The last bullet regarding the discovery of undocumented archaeological resources and human remains under Mitigation Measures should be revised to align with the comments/recommendations above.	***archaeological assessment report(s).*** ***Discovery of undocumented archaeological resources and/or human remains will follow the provisions of the Ontario Heritage and the Funeral, Burial and Cremation Services Acts.*** *Characterization of Net Effects and Determination of Significance: ~~No net effects are predicted~~.* ***Net effects are predicted to be not significant.*** Environmental Concern: Indigenous Culture, Values and Land Use. The last bullet will be revised with MCM recommendations.
10.	7.12.1 Identification and Assessment of Cumulative Effects	See comment #1 above regarding terminology.	MCM recommends the following revision: (…) - Cultural Heritage Resources, **including archaeological resources, built heritage resources and cultural heritage landscapes** OR - Archaeological Resources - **Built Heritage Resources and Cultural Heritage Landscapes**	Bullets in S. 7.12.1 will be revised as follows: • Archaeological Resources; • Built Heritage Resources and Cultural Heritage Landscapes;

4.0 Environmental Inventory

Natural and socio-economic environment baseline conditions are described in the following sections. The study areas used for these assessments are described and depicted in **Section 2.1.1**. Desktop information for the natural and socio-economic environment was generally collected within the LSA, while natural environment field surveys were completed within the PSA. For the purposes of the socio-economic desktop review, an RSA of one km from the corridor centre line was applied.

The information included in this section is focused on the results of desktop and field assessments for the provincially regulated lands in the LSA, which are the subject of this Class EA, as the federal NCC-owned lands are the subject of a separate regulatory process (**Section 1.4**).

Information presented below was obtained through a review of:

- Published documents;
- Government agency resource databases and mapping tools;
- City of Ottawa website;
- Government planning and guidance documents;
- Relevant Project documents;
- Reports commissioned by Hydro One;
- Primary data collection through targeted field surveys; and
- Input received through consultation with stakeholders and Rights holders.

Information for the following environmental and socio-economic elements was collected for the purposes of defining existing conditions, in accordance with Section 3 of the Class EA for TF (Hydro One, February 2024):

- Agricultural resources;
- Forestry resources;
- Cultural heritage resources (i.e., built heritage resources, cultural heritage landscapes, and archeological resources);
- Land use and communities;
- Mineral resources;
- Natural environment resources (e.g., air, land, water, wildlife, etc.);
- Recreational resources; and

- Visual and aesthetic resources.

4.1. Agricultural Resources

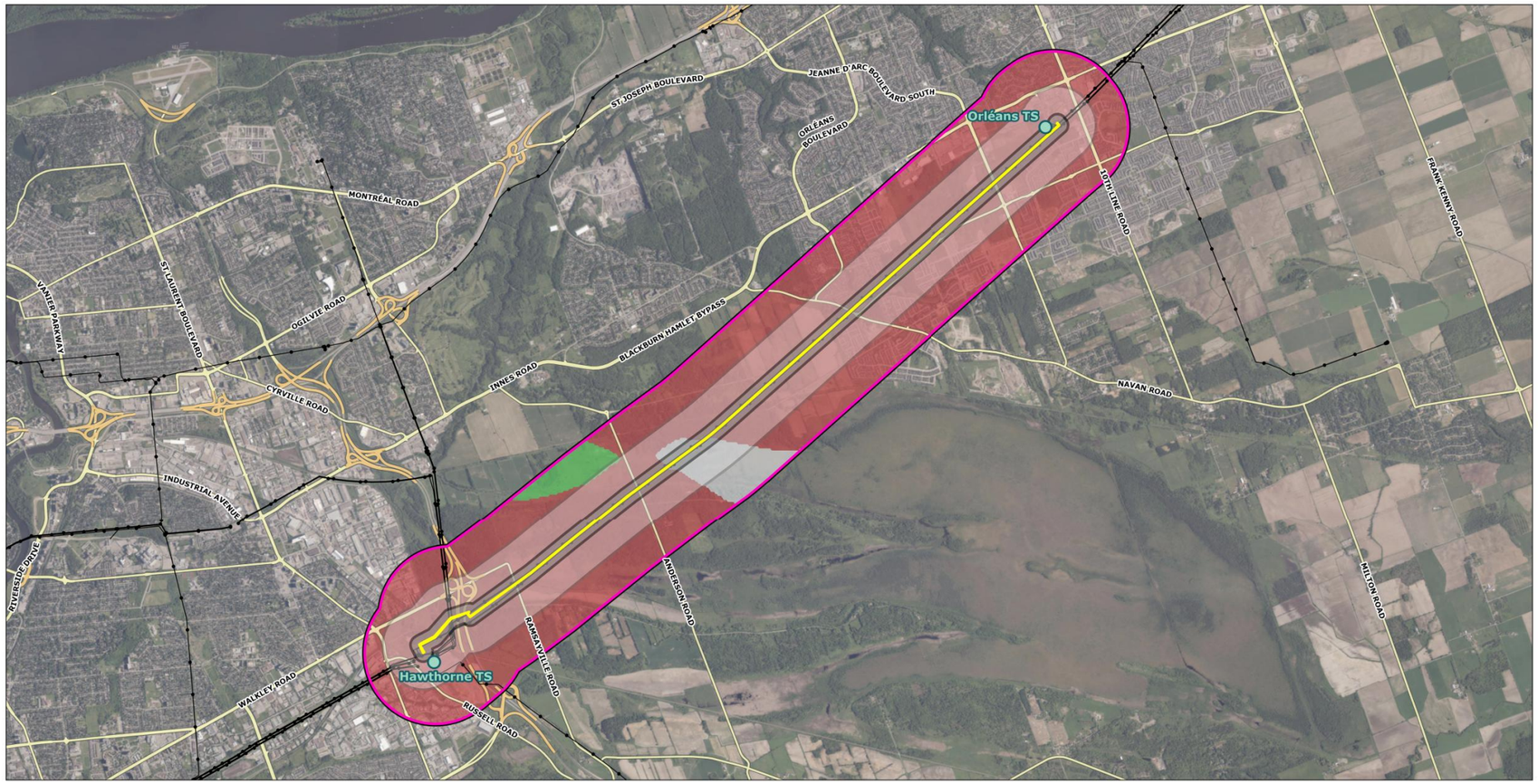
The Canada Land Inventory (CLI) classifies soil types across Canada and categorizes agricultural land capability into 7 classes representing the soil's suitability for agriculture. Class 1 is the highest agricultural capability and Class 7 is the lowest capability. Class 1 to 3 lands are considered Prime Agricultural Areas and are described as follows (Government of Canada, 2013):

- Class 1: No significant limitations in use for crops;
- Class 2: Moderate limitations that restrict the range of crops or require moderate conservation practices; and
- Class 3: Moderate to severe limitations that restrict the range of crops or require conservation practices.

Lands within the PSA are predominantly Class 3 soils, with some Organic soils present in the Mer Bleue Bog (**Figure 4-1**)**.** As noted above, there are moderate to severe limitations restricting the range of crops or requiring special conservation practices for Class 3 soils. Soils under this classification can provide moderately high productivity for some crops (Government of Canada, 2013). Agricultural land uses are present in the central portion of the Project footprint near Renaud Road.

The agricultural land uses in the central portion of the Project footprint and LSA have a field tile drainage system, using a systematic design (OMAFA, 2025). Impacts to field tile drains and associated mitigation measures are included in the effects assessment (**Section 7.1.6**).

Figure 4-1: Agricultural Soil Classes



4.2. Forestry Resources

Timber harvesting in Ontario occurs on both Crown and private land. Forest harvesting on Crown land occurs according to the *Crown Forest Sustainability Act*. Private land harvest occurs at the discretion of landowners or municipalities that have tree removal bylaws.

While there are several woodlands located within the PSA, they fall outside of Forestry Management Units, Agreement Forest Areas, Forest Cover Units, Forest Resource Inventory Areas, or Wood Use Areas Forest Resources as identified through the MNR Forest Resource Inventory (MNR, 2022). As such, the Project does not have potential to affect the productivity or utilization of the land for timber harvesting.

4.3. Cultural Heritage Resources

Hydro One is a public body prescribed under Ontario Regulation 157/10 and is required to comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties (issued under section 25.2 of the *Ontario Heritage Act*).

Provincial heritage properties include three types of cultural heritage resources: built heritage resources, cultural heritage landscapes, and archaeological sites (MCM, 2010).

4.3.1. Archaeological Resources

A Stage 1 Archaeological Assessment (AA) (under Project Information Form #P37-0106-2024) was completed for the Project on June 23, 2025, by Matrix Heritage. A Stage 1 AA consists of a review of geographic, land use and historical information for the property and the relevant surrounding area, and contacting MCM to find out whether, or not, there are any known archaeological sites on or near the property. Its purpose is to identify areas of archaeological potential and further archaeological assessment (e.g., Stage 2-4) as necessary. The Stage 1 AA was entered into the Ontario Register of Archaeological Reports on March 10, 2026, and is included in **Appendix B-1**.

The archaeological activities on provincially regulated lands were performed by a licensed archaeologist in accordance with the MCM Standards and Guidelines for Consultant Archaeologists (2011) and included a 20 m buffer on either side of the

corridor centreline. Additional areas within the PSA falling under federal jurisdiction (i.e., NCC lands) are addressed under separate cover following federal guidelines.

The Stage 1 AA report was shared with the AOO, AOPFN, and KZA for review and comment. The AOPFN and AOO reviewed the report and responded that they had no concerns with the report. No comments were received from KZA.

The Stage 1 AA (Matrix Heritage, 2025) comprised a review of the MCM archaeological database, examination of environmental, historical, and archaeological literature, primary historical research including land registry records and historical mapping, as well as a site visit inspection conducted on May 8, 2025. An Indigenous liaison from AOPFN accompanied Matrix Heritage on the Stage 1 site visit. AOO were invited to participate but were unable to secure a liaison for the site inspection.

The Stage 1 background assessment found that, based on criteria outlined in the Standards and Guidelines for Consultant Archaeologists Section 1.3 (2011), the study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential (see Map 3 of the Stage 1 report; **Appendix B-1**).

The Stage 1 recommendations are as follows (Matrix Heritage, 2025):

1. The study area, as delineated in Map 1, exhibits archaeological potential requiring Stage 2 archaeological assessment.
2. Additional Stage 1 archaeological assessment will be required if any Project impacts are planned beyond the limits of the Stage 1 Project area as delineated in Map 1.
3. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the pedestrian survey method at 5 m intervals in all agricultural fields as per Section 2.1.1 (MCM 2011) (approximate area shown in green in Maps 4 to 11). Appropriate field conditions must be achieved prior to assessment as per Section 2.1.1. (MCM 2011).
4. In areas that cannot be ploughed (as per Section 2.1.2, Standard 1. MCM 2011) (approximate area shown in blue in Maps 4 to 11), a Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals, as per Section 2.1.2 (MCM 2011).
5. The extent of permanently wet areas and areas of deep and pervasive disturbance, as shown on Map 4 to 11 should be confirmed during Stage 2

assessment. As per section 2.1 Standards 2.a.i. and 2.b. (MCM 2011), should these areas meet the criteria for exclusion at the time of assessment, survey of these areas is not required.

6. Areas previously assessed and recommended do not require Stage 2 archaeological assessment under the Standards and Guidelines for Consultant Archaeologists (2011), where the ministry has accepted the Stage 1 report into the Ontario Public Register of Archaeological Reports (as shown in light blue on Maps 4 to 11), require no further archaeological assessment as per Section 2.1, Standard 2.c.

A Stage 2 AA is planned to be completed on provincially regulated lands in the PSA in accordance with the recommendations of the Stage 1 report, as early as possible during detailed design and prior to any ground disturbance activities. Hydro One will invite Indigenous communities and groups to participate and review the Stage 2 AA.

4.3.2. Built Heritage Resources and Cultural Heritage Landscapes

A Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (CHRECPIA) was completed for the Project on January 26, 2026, by Matrix Heritage (Matrix Heritage, 2026) and is provided in **Appendix B-2**. The assessment for this report consisted of data collection, background historic research, review of secondary source material and field review.

There are five properties in the cultural heritage study area with buildings that appear to be older than 40 years of age. These properties are all within the municipal context. The report concludes that none of the properties should be reviewed further through individual Cultural Heritage Evaluation Reports (CHERs) or Heritage Impacts Assessments (HIAs) because they are of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Regulation 9/06 of the *Ontario Heritage Act*. These properties will not be affected by the Project (Matrix Heritage, 2026).

4.4. Land Use and Communities

4.4.1. Land Use Planning

Land use planning in Ottawa is guided by the Provincial Planning Statement (PPS) and the City of Ottawa (2021) Official Plan.

4.4.1.1. Provincial Planning Statement (2024)

The PPS (Ontario, 2024) is issued under the authority of Section 3 of the Ontario *Planning Act,* and the most recent updated version came into effect on October 20, 2024. Section 3 of the *Planning Act* requires that decisions affecting planning matters "shall be consistent with" the PPS. The PPS provides policy direction on matters of Provincial interest, such as infrastructure, employment, and environment.

Section 3.3 of the PPS (Transportation and Infrastructure Corridors) and Section 3.8 of the PPS (Energy Supply) include policies regarding protection and consideration for transmission lines and facilities. The relevant of sections of the PPS are described below:

- Section 3.3.1: Planning authorities shall plan for and protect corridors and rights-of-way for infrastructure, including transmission systems, to meet current and projected needs;
- Section 3.3.4: Preservation and reuse of abandoned corridors for purposes that maintain the corridor's integrity and continuous linear characteristics should be encouraged, wherever feasible;
- Section 3.3.5: The co-location of linear infrastructure should be promoted, where appropriate; and
- Section 3.8.1: Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, energy storage systems, district energy, renewable energy systems, and alternative energy systems, to accommodate current and projected needs.

Additionally, the PPS includes guidance for development in natural heritage areas, including Section 4.1, Natural Heritage. Generally, development and site alteration are not permitted in areas of natural and scientific interest (ANSIs) unless it is demonstrated that there will be no negative impacts on the natural features or their ecological functions. The Project crosses an existing infrastructure corridor in the Mer Bleue Bog, which is a provincially significant ANSI. The portion of the Project in the Mer Bleue Bog is on federal lands and will be addressed further through the federal regulatory process.

4.4.1.2. City of Ottawa Official Plan

The City of Ottawa's Official Plan (OP) (2021) provides the framework for growth and development within the City of Ottawa to a planning horizon of 2046. The priorities and

policies of the City of Ottawa are considered during the Class EA process. The intent of the OP will guide the Project and inform mitigation measures.

The OP describes land use types across the City and guides the type of development that can occur within those areas by dividing the city into six concentric policy areas called transects. Schedule B of the OP shows that lands within the LSA are predominantly designated as Greenbelt, with some pockets of the Outer Urban Transect (west of Mer Bleue Bog) and Suburban Transect (east of Mer Bleue Bog). There are existing industrial operations located in the industrial park southwest of the Highway 417/Regional Road 74 interchange.

The OP also includes policies for growth management, including utilities. Section 3.2 (Support Intensification) states that intensification will be reported on as part of the Climate Change Master Plan's annual status updates and will consider:

- Section 3.2.7: Alignment with local energy utilities to help control the cost of distribution, facilitate on-site generation and support local distributed energy.

Within the Outer Urban Transect, land use designations include Industrial and Logistics and Greenspace. Utilities are permitted in Industrial and Logistics areas as noted in Section 6.4.1. In Greenspace areas, Section 7.1 indicates that "where greenspaces are not intended for recreation or natural heritage protection purposes, the City shall identify the primary functions of open spaces as green transportation and utility corridors" (City of Ottawa, 2021).

Within the Greenbelt Transect, land use designations include Greenspace, Greenbelt Rural, Significant Wetlands and Agricultural Resource Area. Utilities are permitted in the Greenbelt Transect, as noted in Section 8.4: "where possible, utilities will be combined in a limited number of corridors and utilize existing rights of way" (City of Ottawa, 2021).

Within the Suburban Transect (east), land use designations include Greenspace, Neighbourhood, Hub and Corridors. Utilities are permitted in Suburban Transect(s) subject to certain criteria. In Neighbourhoods, Section 6.3.2 provides for "built form and site development characteristics that may provide for a mix of urban and suburban characteristics, provided that development does not unreasonably preclude evolution to more urban character". In Hubs, Section 6.1.1 states Hubs will "generally permit residential uses and will permit such non-residential uses as are consistent with the criteria for development within a Hub". In Corridors, Section 6.2.1 states Corridors will

"generally permit residential uses and such non-residential uses that integrate with a dense, mixed-use urban environment" (City of Ottawa, 2021).

In addition to specific land use policies, one of the OP's priorities is to support intensification, with 51 percent of projected urban area growth planned to occur within the built-up portion of the urban area (City of Ottawa, 2021).

There are currently 4 active development applications within the LSA, including:

- 298 Axis Way – site plan control and zoning by-law amendment application (12 three-storey low-rise stacked dwellings, townhouse blocks with a total of 200 units);
- 640 Compass Street – site plan control application (6 low-rise stacked dwellings with a total of 66 units);
- 3672, 3730, and 3828 Innes Road – plan of subdivision and zoning by-law amendment application (residential lots, 3 parks, open space blocks, future employment blocks and public streets to accommodate up to 2,040 dwellings); and
- 2983 Navan Road – site plan control application (gas bar, commercial space and fast-food restaurant).

4.4.1.3. City of Ottawa Zoning By-law

The Project is located in Area C, Urban and Greenbelt Area, as shown on Schedule 1 of the City of Ottawa Zoning By-law (2008-250) (consolidated to June 18, 2025). Within this area, the Project crosses a number of different land use zones including Open Space and Leisure, Rural Countryside, Environmental Protection, Agricultural, Residential, Industrial, Mixed Use/Commercial, and Transportation.

Under Section 91 (1) of the Zoning By-law: "A utility installation is permitted in all zones other than Environmental Protection, Mineral Extraction, and Mineral Reserve, subject to certain provisions." However, Section 91 (1)(f) states that: "utility installations that are subject to the requirements of the *Environmental Assessment Act* are permitted in all zones and are not subject to the provisions of this Zoning By-law."

Since the Project is subject to the *EA Act*, the City's Zoning By-law does not apply to the Project.

4.4.2. Transportation

The PSA includes local and regional road networks. Highway 417 travels north-south through the west end of the PSA/LSA. A summary of road classification types in the City of Ottawa is as follows:

- Provincial + City Highway;
- Federally Owned Roads;
- Arterial;
- Major Collector;
- Collector;
- Local; and
- Lane.

The nearest airport is the Ottawa International Airport, located outside of the LSA, approximately 9 km southwest of Hawthorne TS.

There is one rail line that intersects the LSA, running northwest to southeast. The rail line is operated by Canadian National Railway and is located at the west end of the LSA limits.

There are regional and local bus routes within the LSA near the urban areas but limited public transit routes are available in more rural areas. It is not anticipated that Project construction will disrupt transit routes, due to the Project location in the existing Hydro One corridor and TS footprints.

4.4.3. First Nations Lands and Interests

As outlined in **Section 3.4**, multiple Indigenous communities and representative groups were consulted as part of the Class EA process. While there are no First Nation reserve lands situated within the PSA, Hydro One recognizes that the proposed Project resides on the traditional, unceded, and unsurrendered territory of the Anishinaabe Algonquin Nation. Of the Indigenous communities identified by the Crown, the closest community to the PSA is the Algonquins of Pikwakanagan First Nation (No. 06216) (Government of Canada, 2025), located approximately 130 km west of the PSA.

As identified in the MEM's (formerly Ministry of Energy) December 13, 2024, letter confirming Indigenous communities to be consulted on the Project, Indigenous communities were consulted on the basis that they have or may have constitutionally

protected Aboriginal and/or Treaty rights that may be adversely affected by the proposed Project. No concerns regarding impacts to s.35 rights have been raised by Indigenous communities at the time of writing this ESR.

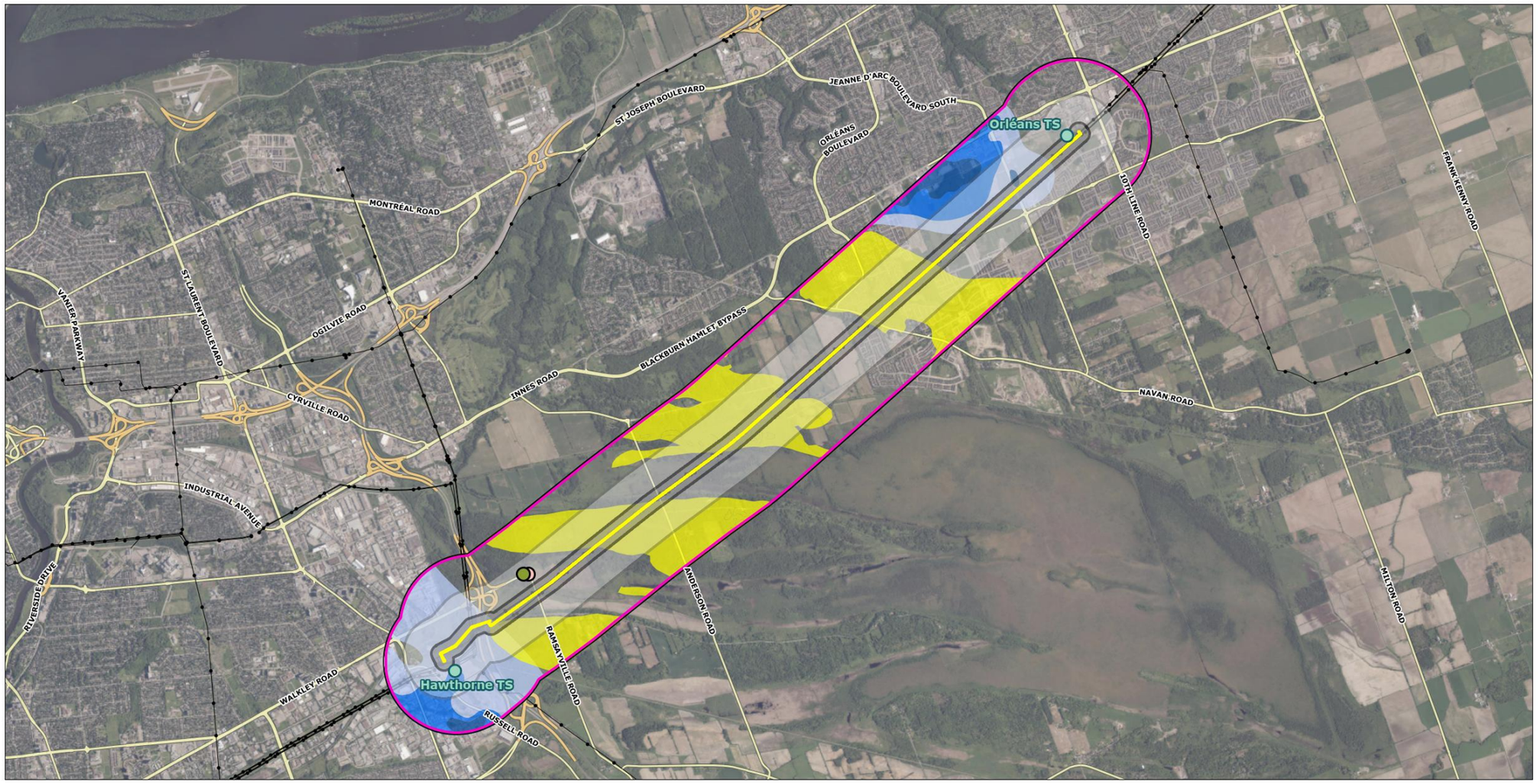
4.5. Mineral Resources

Based on a review of the MNR Land Information Ontario (LIO) database, satellite imagery interpretation and observations made during field investigations, there are no active aggregate pits and quarries located within the PSA (see **Figure 4-2**). The PSA contains tertiary sand and gravel resources, and 8-15 metre bedrock aggregate resources (LIO, 2025).

No active or abandoned mines were identified within the PSA or on adjacent lands (ENDM, 2017).

Two abandoned petroleum wells exist outside of the PSA boundaries (see **Figure 4-2**).

Figure 4-2: Mineral Resources and Petroleum Wells



ORLÉANS AREA REINFORCEMENT PROJECT

Regional Study Area (1 km)
Transformer Station (TS)
Proposed Transmission Line
Project Study Area (120 m)
Local Study Area (500 m)
Existing Transmission Line
Major Road
Highway
Waterbody
Watercourse

Ontario Mineral Inventory
SHALE (CRUSHED STONE)

Petroleum Well
Abandoned Well

Sand Gravel Aggregate Resources
Tertiary

Bedrock Aggregate Resources
Less than 1 m
1 m to 8 m
8 m to 15 m
Greater than 15 m

MINERAL RESOURCES AND PETROLEUM WELLS
FIGURE 4-2

MAP DRAWING INFORMATION:
DATA PROVIDED BY HYDRO ONE NETWORKS INC, MNRF, DILLON CONSULTING LTD.

MAP CREATED BY: AEE
MAP CHECKED BY: IQ
MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

SCALE 1:50,000
0 0.5 1 2 km
PROJECT: 24-8296 STATUS: DRAFT DATE: 2025-09-29

FILE LOCATION: K:\2024\248296\Product\Client\ESR\ESR\ESR.aprx

4.6. Natural Environment Resources

Natural environment features including air, land, water, wildlife and wildlife habitat resources and features were factors considered within the PSA.

This section addresses physical and biological features in the PSA including baseline information for the following:

- Physical environment;
- Atmospheric environment;
- Surface and groundwater resources;
- Designated or special natural areas; and,
- Natural heritage features.

Field surveys were undertaken during the 2025 field season to assess baseline environmental conditions and significant natural values to inform the Class EA.

Field assessments within the PSA were conducted in accordance with the methods outlined in the "Summary of Planned Natural Environment Surveys" document that was prepared for Indigenous communities, dated March 2025. The Summary of Planned Natural Environment Surveys document was developed following a preliminary desktop records review to identify the presence of known natural features within the PSA. It outlines the survey methods for both the provincially and federally regulated lands within the PSA (see Appendix B of the Natural Environment Existing Conditions Technical Report in **Appendix B-3**).

Environmental field survey staff were regularly accompanied during the field surveys by Indigenous Environmental Monitors from Algonquins of Ontario. Algonquins of Pikwakanagan First Nation were unable to participate, as the Guardian Program was undergoing restructuring at the time of the field assessments. Summaries of the field survey results were provided to both Indigenous communities on a regular basis throughout the field program.

Where private property access was granted in advance of the field programs, field studies occurred within or directly adjacent to natural heritage features. Where private property access was not granted and the property was associated with a natural feature(s), field data was collected from the public road allowance, Hydro One's existing transmission ROW and/or from property limits where access was granted. Field data

collected from adjacent lands was supplemented with information collected through aerial imagery interpretation and secondary data sources.

Results of the natural heritage field surveys are summarized in the Natural Environment Existing Conditions Technical Report for the Project (**Appendix B-3**). A summary of the field program results is included in **Section 4.6.6**.

4.6.1. Physical Environment

Bedrock geology of the PSA is illustrated on **Figure 4-3** (ENDM, 2010). Bedrock deposits within most of the PSA are characterized as shale, limestone, dolostone, and siltstone (ENDM, 1991) of the Billings Formation of the Upper Ordovician period (ENDM, 1991).

Quaternary geology studies developments of the most recent geological period, the Quaternary period. Quaternary geology of the PSA is depicted on **Figure 4-4** (ENDM, 2010). The PSA consists mainly of silt and clay glaciomarine and marine deposits, and gravel, sand, silt and clay fluvial deposits (ENDM, 2012). The overburden thickness varies and generally gets thicker in the northern portion of the PSA. The southwestern portion of the PSA has an overburden thickness of around 14 m while the northeastern section has an overburden thickness of around 34 m. The till in this area is described as clay to silt-textured till derived from the glaciolacustrine deposits or shale. The fine-textured glaciomarine deposits within this section of the PSA consist of silt and clay layers with minor gravel and sand that are described as massive to well-laminated; the older alluvial deposits within this section of the PSA consist of clay, silt, sand, gravel, and potential organic remains; and a small section of organic deposits within the PSA consists of peat, muck, and marl.

The bedrock and quaternary geology described for the PSA is consistent with the physiographic region described for eastern Ontario. The PSA extends across a portion of the Ottawa Valley Clay Plains along with sections of the Russell and Prescott Sand Plains, and Peat and Muck physiographic regions of Ontario. The Ottawa Valley Clay Plains extend predominantly east and west of the City of Ottawa, whereas the Russell and Prescott Sand Plains extend in more a southernly direction. The topography of the PSA and surrounding region in general are considered to feature a rolling landscape.

Figure 4-3: Bedrock Geology

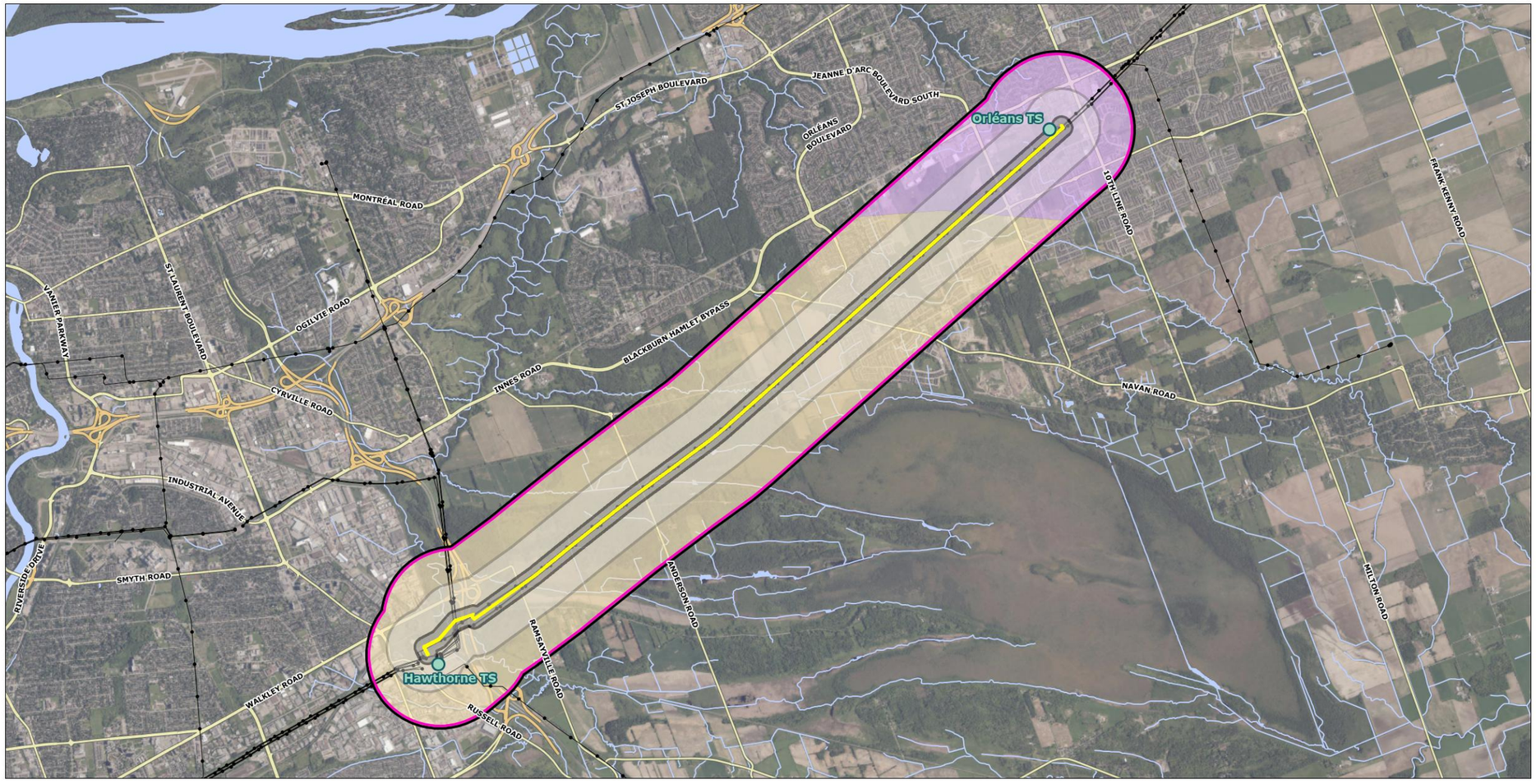
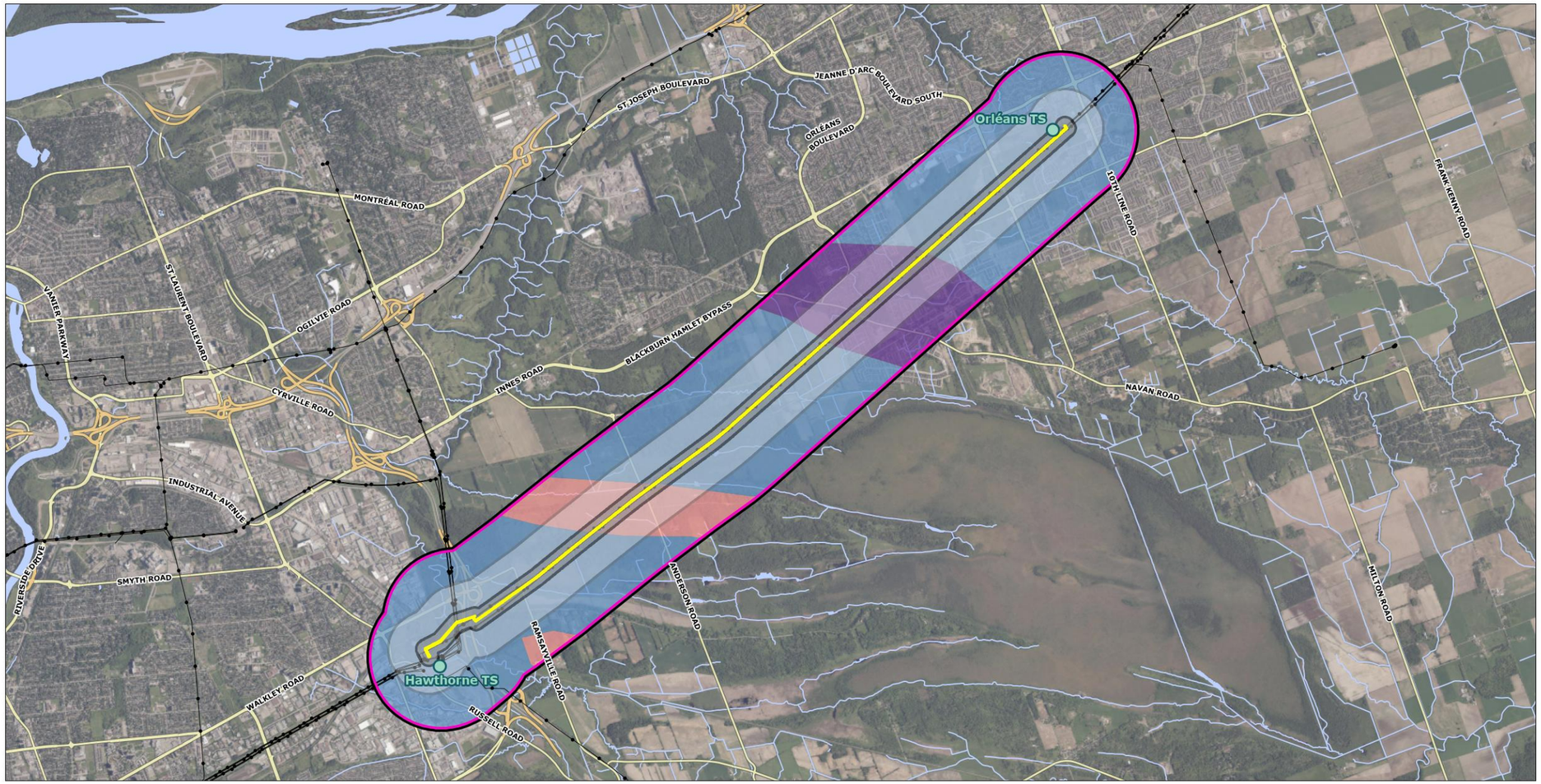


Figure 4-4: Quaternary Geology



4.6.2. Atmospheric Environment

As part of the Class EA for TF (2024), consideration must be given to the potential effects a proposed Project has on climate change. The sections below describe the potential effects of the proposed Project on climate.

4.6.2.1. Climate

Climate averages are commonly used to describe the climatic conditions of a particular location in Canada. At the end of each decade, ECCC updates its climate averages for several locations across Canada and for as many climatic characteristics as possible. The climate averages and extremes are obtained from Canadian climate stations with at least 15 years of data between 1991 and 2020 (Government of Canada, 2025a).

Meteorological stations with sufficient long-term data for the general region of the PSA have been identified in Ottawa (Ottawa CDA, Climate Identifier [ID] 6105976, and Ottawa CDA RCS, Climate Identifier [ID] 6105978). The meteorological stations are located at the same location approximately 11 km west of the PSA. Temperature and precipitation data presented in this section are based on the annual climate normals data for the period between 1991 and 2020 (Government of Canada, 2025a).

Table 4-1: Summary of Published Annual Climate Normals for the 1991 to 2020 Period for the Ottawa Stations

Parameter	Value
Daily average (degrees Celsius [°C])	6.8
Daily maximum (°C)	11.7
Daily minimum (°C)	1.9
Rainfall (millimetres [mm])	771.5
Snowfall (centimetres [cm])	184.5
Precipitation (mm)	938.1
Days with maximum temperature > 35°C	0.38

Parameter	Value
Days with minimum temperature < -30°C	0.0
Days with rainfall ≥ 25 mm	5.0
Days with snowfall ≥ 25 mm	0.17
Days with precipitation ≥ 25 mm	5.2

Source: Government of Canada, 2025a

4.6.2.2. Temperature

The climate normal mean annual temperature recorded at the Ottawa CDA and Ottawa CDA RCS WPCP meteorological stations is 6.8ºC (Government of Canada, 2025a). For these two stations, the climate normal daily average temperature varies between 1.9°C and 11.7ºC. The climate normal frost-free period is from April 30 to October 6 (158 days) (Government of Canada, 2025a).

4.6.2.3. Precipitation

Precipitation is distributed throughout all four seasons, with snowfall typically limited to October to April, and rainfall occurring throughout the year. Climate normal days with precipitation (equal to or over 0.2 mm) is 117.4 days per year for the Ottawa CDA and Ottawa CDA RCS WPCP meteorological stations (Government of Canada, 2025a). Similarly, climate normal monthly precipitation varies between 52.4 mm (February) and 95.1 mm (June) at both stations (Government of Canada, 2025a). For the two meteorological stations, the climate normal total annual precipitation is 938.1 mm, where 184.5 mm is associated with snowfall and 771.5 mm occurs as rainfall.

Extreme daily rainfall for the Ottawa CDA and Ottawa CDA RCS WPCP meteorological station varies from 38.4 mm (February) to 108.6 mm (September) and is considered climate normal. Extreme snow depths for the Ottawa CDA and Ottawa CDA RCS WPCP stations range from 0.0 to 55.91 cm (January) (Government of Canada, 2025a).

4.6.2.4. Wind

At the Ottawa CDA and Ottawa CDA RCS WPCP meteorological stations, winds are primarily blowing from the west with an average maximum hourly speed of 11.5 kilometres per hour (km/hr) (Government of Canada, 2025a).

4.6.2.5. Air Quality

In Ontario, air quality is monitored through a network of air quality monitoring stations operated by the MECP and ECCC (AQO, n.d.; ECCC, 2025); the MECP monitors air quality throughout the province as part of the Air Quality Monitoring System (AQO, n.d.). The nearest stations are located approximately 9 km northwest of the PSA (Downtown Ottawa). Through hourly monitoring, an Air Quality Health Index (AQHI) reading summarizes background air quality levels for ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulphur dioxide (SO_2) and particulate matter ($PM_{2.5}$). Ozone, nitrogen dioxide, and particulate matter are measured at the Downtown Ottawa station.

The AQHI creates a score (i.e., 1 to 10+) totalling the overall risk associated with levels recorded for the parameters measured. A score of 1 to 3 indicates a low risk, a score of 4 to 6 indicates a moderate risk, while a score of 7+ indicates a high risk to ambient air quality. Air monitoring data summarized to provide AQHI scores from the Ottawa Downtown station represents the combined effect of emissions from nearby sources, as well as the effect of emissions transported into the region. AQHI readings are recorded hourly. Based on averaged daily AQHI readings recorded over the 2023, 2024, and 2025 monitoring years, a low score (1 to 3) and, therefore a low risk to air quality, are indicated for the Ottawa area (AQO, 2025).

4.6.2.6. Noise

In accordance with the MECP (formerly Ministry of the Environment and Climate Change [MOECC]) publication NPC-300 “Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning” noise-sensitive receptors, or points of reception, are defined as sensitive land uses, which include (MOECC, 2016):

- Dwellings;
- Institutional use (educational, nursery, hospital, health care facility, community centre, place of worship or detention centre); and
- Commercial use (hotel or motel).

Based on a desktop review, points of reception were identified within the LSA to represent the noise-sensitive receptors in the vicinity, all being rural and urban residential dwellings, and educational buildings.

Ambient noise conditions within the LSA were established through a review of publicly available information and the professional perspective of Hydro One based on experience with existing transmission line and station projects. Ambient noise conditions within the LSA are generally expected to be dominated by anthropogenic activities. These activities include, but are not limited to, transportation (roads), agricultural activities, and residential activities. The actual ambient noise levels at a given point of reception depend on several factors, including:

- Type of noise source;
- Distance to the noise source; and
- Influences from intervening areas (e.g., structures, vegetation, as applicable) that could provide shielding between the noise source and point of reception.

Ambient noise levels are expected to vary throughout the various periods of the day (i.e., daytime [07:00 to 19:00], evening [19:00 to 23:00], and night-time [23:00 to 07:00]), days of the week, and seasons of the year. Ambient noise levels are expected to be at their highest during the agricultural planting and harvest seasons.

Ambient noise levels in the LSA are likely influenced by the following noise emissions:

- Local and distant road traffic; and
- Agricultural (seasonal) and residential activities.

4.6.3. Surface Water Resources

For the purposes of field studies conducted in 2025 in support of the Class EA, surface aquatic features were identified through publicly available MNR mapping and a site reconnaissance conducted in 2024. As summarized in the Natural Environment Existing Conditions Technical Report (**Appendix B-3**), a total of 8 watercourses were identified in the PSA on provincially regulated lands. Of the 8 identified watercourses, 6 were identified as permanent watercourses, and 2 were identified as intermittent. No waterbodies (e.g., lakes, ponds) were identified within the PSA.

Identified watercourses and fish and fish habitat survey locations are shown on Figure 3 in **Appendix B-3**.

The topography across the PSA is relatively flat, with general sloping observed towards watercourse systems and surface drainage features. No active Provincial Water Quality Monitoring Network stations have been identified within the vicinity of the LSA.

4.6.4. Groundwater Resources

Groundwater resources were evaluated within the PSA to understand potential effects on groundwater from the proposed Project.

4.6.4.1. Water Wells

Well records mapped for the Province of Ontario were reviewed to determine groundwater quality (MECP, 2025).

Background review determined that many water wells are located within the extent of the PSA. Mapping identifying the extent of well records for the PSA and general vicinity is shown on **Figure 4-5**. As such, select well records were chosen within the PSA to identify the approximate groundwater and overburden depths for areas associated with the preferred route. Most of the domestic water supply well records within the PSA were recorded prior to the last 40 years, and the observation/monitoring wells were recorded within the last 15 years. The summary of the water wells chosen for review are listed in **Table 4-2**.

Table 4-2: Water Well Records Selected for Review within the PSA

Well ID	Date Complete	Well Use	Well Depth (m)	Depth to Bedrock (m)	Depth to Water (m)	Overburden
1510716	2/19/1970	Domestic Water Supply	29.6	27.4	3.7	Clay
1512081	11/1/1972	Domestic Water Supply	22.3	0.6	7.6	Clay
1512852	9/6/1962	Farm and domestic	13.7	Not encountered	0.9	Clay
1512853	8/12/1963	Domestic Water Supply	6.7	3	0.9	Clay underlain by coarse sand

Well ID	Date Complete	Well Use	Well Depth (m)	Depth to Bedrock (m)	Depth to Water (m)	Overburden
1513953	6/8/1973	Domestic Water Supply	16.2	11.3	1.2	Clay
1519786	6/10/1985	Domestic Water Supply	13.1	10.4	1.2	Clay
7214510	12/2/2013	Observation / Monitoring Well	4.6	Not encountered	-	Clay
7214511	12/2/2013	Observation / Monitoring Well	6.1	Not encountered	-	Clay
7292790	7/25/2017	Test Well	21.6	Not encountered	-	Sand
7338724	12/13/2018	Piezometer	10.1	Not encountered	-	-
7373863	10/8/2020	Observation / Monitoring Well	3.1	Not encountered	1.5	Clay
7419924	9/29/2020	Observation / Monitoring Well	5.9	Not encountered	2.1	Clay
7419976	11/6/2020	-	-	-	-	-
7465029	9/27/2023	-	-	-	-	-

Source: MECP, 2025

Well log records are consistent amongst the water wells: groundwater is typically found approximately between 0.9 and 7.6 m below ground surface. The groundwater levels noted on the well records indicate that the water table is present within both the clay overburden and the underlying bedrock. Bedrock was variable, ranging from approximately 0.6 to 27.4 m below ground surface. Most wells observed within and adjacent to the PSA were all used for local water supply (farm/livestock and domestic residential), or observation/monitoring wells. Groundwater observed within boreholes of several of the water wells was described as clear.

4.6.4.2. Groundwater Hydrogeology

The PSA extends across the Ottawa Valley Clay Plains physiographic regions of Ontario as defined by Chapman and Putnam (1984). Although the PSA extends across the Ottawa Valley Clay Plains, the surficial geology consists of both Champlain Sea clay, an alluvial sand deposit, and an organic deposit consisting of muck and peat (Ontario Geological Survey [OGS], 2010).

The Mer Bleue Bog is a Provincially Significant Wetland (PSW) within the federally regulated portion of the PSA, although it influences groundwater regimes beyond this administrative boundary. The Mer Bleue Bog is described as a domed bog with water entering the bog mainly from natural precipitation (Ramsar Sites Information Service, 2001). Drainage is poor due to the underlying clay deposits, and surface water eventually drains both westward into Greens Creek and eastwardly into Bear Brook (i.e., the bog represents a headwater feature relative to both of those watercourses). Groundwater discharge will also contribute net flows to the bog; however, this would be dominated by groundwater discharge from the immediately adjacent alluvial deposits to the bog, rather than the deeper clay (NCC, 1994).

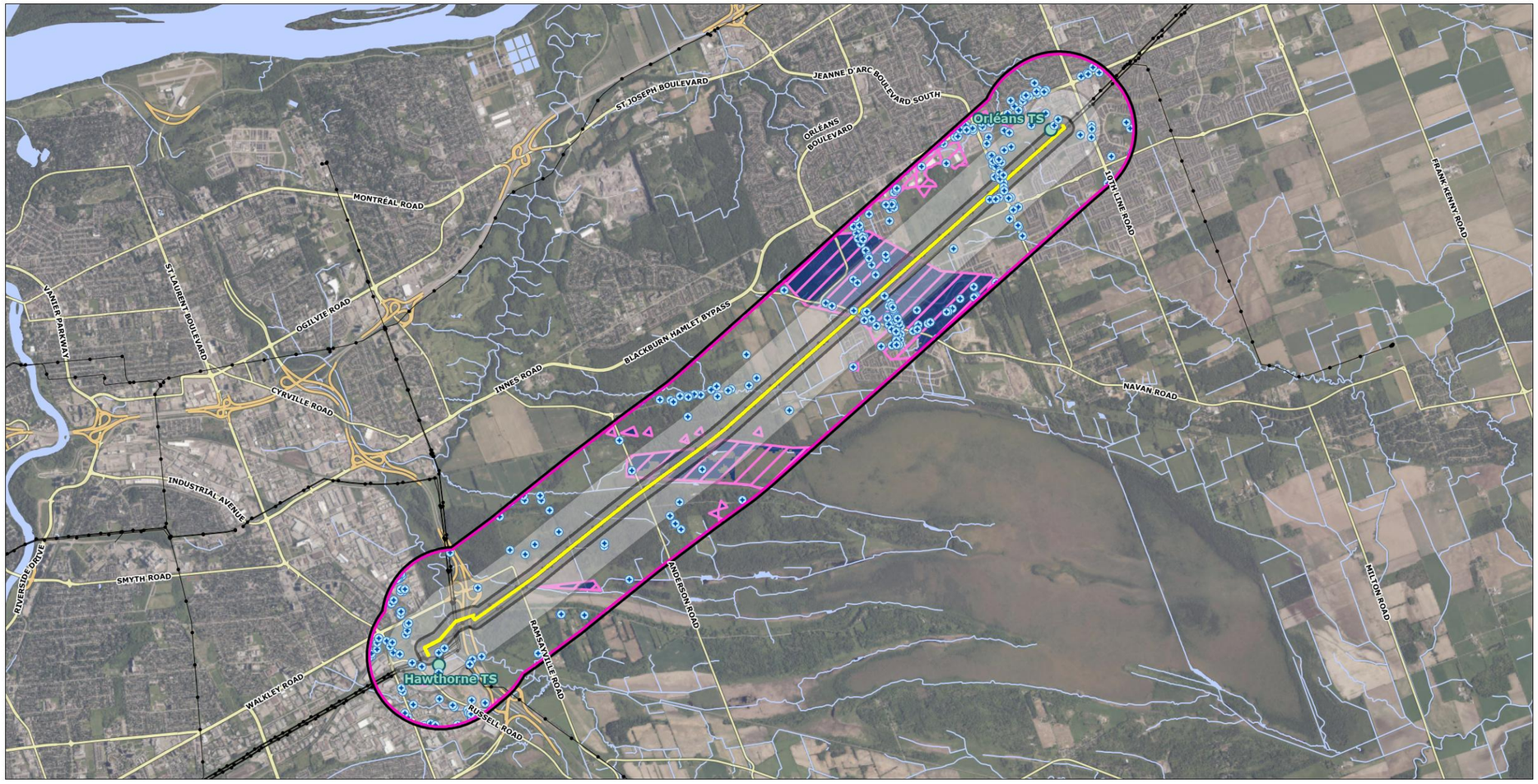
4.6.5. Source Water Protection

The PSA is within the Mississippi-Rideau Source Protection Region (SPR) and the Raisin-South Nation SPR. No municipal drinking water supplies were identified within the PSA or within the general vicinity. There are no surface water source Intake Protection Zones (IPZs) or Wellhead Protection Areas (WHPAs) within the PSA. The PSA crosses highly vulnerable aquifers (HVAs) (vulnerability scores ranging from 2 to 6) and significant groundwater recharge areas (SGRAs) (vulnerability score of 6) (see **Figure 4-5**) (LIO, 2025).

The Surficial Geology of Southern Ontario (OGS, 2010) was reviewed and a medium grained alluvial sand deposit mapped in the PSA was determined to be generally consistent with HVA areas shown in source water protection mapping.

HVA areas are considered particularly susceptible to contamination due to shallow, near-surface groundwater, or a permeable soil layer above the aquifer (MECP, 2023). SGRAs are areas that are desirable to regulate or monitor drinking water threats that may affect the recharge of an aquifer (MECP, 2023).

Figure 4-5: Water Wells and Source Protection Areas



ORLÉANS AREA REINFORCEMENT PROJECT

Transformer Station (TS)
Proposed Transmission Line
Regional Study Area (1 km)
Local Study Area (500 m)
Project Study Area (120 m)
Existing Transmission Line
Major Road
Highway
Waterbody (MNR, 2024)
Watercourse (MNR, 2024)
Highly Vulnerable Aquifers
Significant Groundwater Recharge Areas
MECP Wells

WATER WELLS AND SOURCE PROTECTION AREAS
FIGURE 4-5

MAP DRAWING INFORMATION:
DATA PROVIDED BY HYDRO ONE NETWORKS INC, MNRF, DILLON CONSULTING LTD.

MAP CREATED BY: AEE
MAP CHECKED BY: AL
MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

SCALE 1:50,000
0 0.5 1 2 km
PROJECT: 24-8296 STATUS: DRAFT DATE: 2025-09-29

FILE LOCATION: K:\2024\248296\Product\Client\ESR\ESR\ESR.aprx

4.6.6. Natural Heritage Features

Information on natural heritage resources was collected by conducting a background review and natural heritage field surveys within the PSA in 2025.

Information on natural heritage resources was collected from, but not limited to, the following background sources:

- Species at Risk in Ontario (SARO) List (O. Reg. 230/08);
- *SARA* database;
- Natural Heritage Information Centre (NHIC) database (NHIC, 2024);
- Atlas of Breeding Birds of Ontario (Cadman et al., 2007);
- Ontario's Reptile and Amphibian Atlas (Ontario Nature, 2023);
- City of Ottawa Official Plan (2021);
- RVCA;
- NCC;
- Aerial imagery; and
- Ontario Base Map.

A summary of the background review and field survey results is provided below. Refer to Figure 3 in **Appendix B-3** for survey locations.

A high-level policy interpretation is also provided. As defined in the PPS (2024), natural heritage features and areas include "significant wetlands, significant coastal wetlands, other coastal wetlands in Ecoregions 5E, 6E and 7E, fish habitat, significant woodlands and significant valleylands in Ecoregions 6E and 7E, habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest".

4.6.6.1. Areas of Natural and Scientific Interest

There are no ANSIs within the provincially regulated lands in the PSA. ANSIs receive protection under the PPS (MMAH, 2024).

4.6.6.2. Wetlands

There are no PSWs within the provincially regulated lands in the PSA. PSWs receive protection under the PPS (MMAH, 2024).

During background review, 14 MNR-mapped unevaluated wetlands were identified as potentially intersecting the PSA as shown on Figure 2 in **Appendix B-3**. Upon field

verification in 2025, wetlands identified during desktop review (MNR mapped wetlands) were determined not to be present.

4.6.6.3. Woodlands

During background review, 14 MNR-mapped woodlands were identified as potentially intersecting the PSA as shown on Figure 2 in **Appendix B-3**. Eight woodland communities were confirmed during field verification. Many of the woodlands identified during desktop review (MNR-mapped woodlands) were determined to be thickets.

4.6.6.4. Valleylands

Valleylands were identified within the PSA along Mud Creek, based on background review.

4.6.6.5. Fish Habitat

Two watercourses were confirmed during 2025 field investigations as providing fish habitat or having high potential to provide fish habitat. These are Ramsay Creek and Mud Creek. Fish habitat is protected under the federal *Fisheries Act*.

4.6.6.6. Ecological Land Classification

Ecological communities were classified in accordance with Ecological Land Classification (ELC) for southern Ontario (Lee et al., 1998; Lee, 2008). ELC communities were mapped based on aerial imagery and subsequently verified in the field. The PSA is dominated by meadow-type communities. Natural areas documented within the PSA were identified as isolated features in the landscape.

Vegetation communities identified within the PSA are illustrated on Figure 4 in **Appendix B-3**. The composition of natural vegetation and cultural communities identified within the PSA are summarized in **Table 4-3**.

Table 4-3: Vegetation Communities Identified within the PSA

ELC Community	Area (ha) within PSA	Description
FOD *Deciduous Forest*	0.43	This community is located on the south side of Brian Coburn Boulevard, east of Pagé Road. This area was not accessed and was interpreted using aerial imagery.
FOM *Mixed Forest*	0.45	This community is located directly east of Highway 417 in the southern portion of the PSA. The community could not be accessed, however, both coniferous and deciduous trees including Manitoba Maple, White Spruce, American Larch, and Eastern White Pine were identified from a distance.
FOMM2-2 *Dry-Fresh White Pine – Hardwood Mixed Forest*	2.85	This community is located at the corner of Brian Coburn Boulevard and Navan Road. The community was observed to have Mud Creek running through the center of the community in a valley, flowing southwest. The community was observed to be a mature forest. In the canopy layer Red Maple, Sugar Maple, and Eastern White Pine were observed being equally abundant with Paper Birch and Eastern White Pine occurring occasionally. In the sub-canopy layer, Sugar Maple was dominant, with American Beech and Eastern White Cedar occurring occasionally. The ground cover layer was dominated by Wood Fern and abundant Bush Honeysuckle occurring on the upland ridges.
WODM5 *Fresh-Moist Deciduous Woodland Ecosite*	8.76	Three units of this community are located east of Pagé Road. They are dominated by Large-tooth Aspen, Sugar Maple, Trembling Aspen, Basswood, and Pine. Access to the area was restricted by fencing.

ELC Community	Area (ha) within PSA	Description
WODM5-1 *Fresh-Moist Poplar Deciduous Woodland*	10.09	This community is located east of Pagé Road. This community is located on private land with no access permission. This community was assessed from an adjacent property. In the canopy layer, Trembling Aspen was dominant. In the sub-canopy layer, Trembling Aspen was dominant, with some Manitoba Maple and Green Ash also present. The understory and ground layer could not be assessed due to access constraints.
WOM *Mixed Woodland Ecosite*	0.18	This community is located at the east end of Hydro Road. It is dominated by Trembling Aspen, Manitoba Maple, Norway Spruce, and Scot's Pine.
WOMM3 *Dry-Fresh Mixed Woodland Ecosite*	0.15	This community is located west of Highway 417.
THD *Deciduous Thicket*	0.27	Thicket community based on aerial imagery, no access.
THM *Mixed Thicket*	3.86	This community is located west of Navan Road. It is dominated by spruce, white pine, and aspen.
THDM2 *Deciduous Shrub Thicket*	11.51	A few units of this community are located in the west end of the PSA near Hawthorne TS, in proximity to the hydro lines, rail tracks, and trail. There was no vegetation in the canopy or sub-canopy layers. The understory was dominated by Meadow Willow and Trembling Aspen saplings. The ground layer was dominated by Reed Canary Grass, Purple Loosestrife, Canada Goldenrod, and Common Milkweed. Other units are variable, and include species such as willow, honeysuckle, buckthorn, and

ELC Community	Area (ha) within PSA	Description
		hawthorn. A unit of this community is also located east of Mer Bleue Road.
MEMM3 *Dry-Fresh Mixed Meadow*	18.60	This community is located west of Pagé Road. Vegetation is absent in the canopy, sub-canopy, and understory layers. The ground layer is dominated by Black-eyed Susan, Wild Carrot, Evening Primrose, and Grass species. The community grades into a young aspen thicket at the west end. An additional MEMM3 community is present at the eastern end of Hydro Road. It is dominated by Burdock, Canada Goldenrod, Reed Canary Grass, and Wild Carrot. An additional MEMM3 community is present east of Renaud Road. An additional MEMM3 community is present east of Mer Bleue Road. This meadow has pockets of invasive European Common Reed/Phragmites.
MEMM3 / THDM2 Complex *Dry-Fresh Mixed Meadow / Deciduous Shrub Thicket Complex*	27.18	This community is located east of Pagé Road.
MEMM4 *Fresh-Moist Mixed Meadow*	2.47	This community is located east of Mer Bleue Road.
OAO *Open Aquatic*	2.63	Stormwater ponds east of Page Road.
SAM	0.47	Ramsay Creek and Mud Creek. Two watercourses that were assessed for fish habitat.

ELC Community	Area (ha) within PSA	Description
Mixed Shallow Aquatic		
CGL *Constructed Green Lands*	0.52	This community is located east of Pagé Road. Former golf driving range, overgrown meadow.
CVR *Residential*	9.58	Homes and residential neighbourhoods.
CVC *Commercial and Institutional*	6.75	Businesses and commercial buildings.
CVI *Transportation and Utilities*	2.92	A cellular tower facility is located west of Navan Road.
CVI-1 *Transportation*	10.12	Roads that are present within the PSA.
CVI-4 *Power Generation*	6.50	Includes the Hawthorne and Orléans Transformer Stations.

4.6.6.7. Botanical Assessment

During the ELC surveys, vascular plant species observed in each community were documented throughout the PSA. The botanical assessment included visual estimates of species abundances and composition. A total of 50 plant species were recorded in the PSA during the ELC and botanical surveys.

Of the 50 plant species observed, 47 species were identified to the species level, while 3 were identified to genus level. Of the 47 species identified:

- None are Species at Risk;
- None are provincially rare (i.e., SRank of S1 to S3); and
- None have a Co-efficient of Conservatism (CC) value of seven or higher (typical of species that may be more susceptible to disturbance).

4.6.6.8. Non-Native and Invasive Plant Species

During ELC and botanical surveys, invasive species were identified which are not associated with conservation rankings. A total of nine invasive species were observed and identified within the PSA.

The identified invasive species belong to three of the five categories of control as defined by the Invasive Priority for Control (Ontario Invasive Plant Council, 2013) and are listed below.

- Category 1 – widespread invasive species that are top priority for control:
  - Glossy Buckthorn (*Frangula alnus*);
  - Purple Loosestrife (*Lythrum salicaria*);
  - White Sweet-clover (*Melilotus albus);*
  - Reed Canary Grass (*Phalaris arundinacea); and*
  - European Common Reed (*Phragmites australis ssp. australis).*
- Category 2 – less widespread invasive species that are medium priority:
  - Manitoba Maple (*Acer negundo*); and
  - Kentucky Bluegrass (*Poa pratensis ssp. Pratensis*).
- Category 4 – species to watch that spread locally or regionally but have minimal effects on biodiversity:
  - Wild Carrot (*Daucus carota*).

Category 1 species, including European Common Reed are commonly found throughout the PSA and LSA. Physical site disturbance may increase the likelihood that non-native and/or invasive flora species will be introduced to the surrounding botanical communities. Invasive species are able to establish in disturbed sites more efficiently than native flora and can encroach into neighbouring undisturbed areas as well.

Mitigation for potential impacts due to the spread of invasive species are further discussed in **Section 7.7.7.6.**

A complete list of species observed is provided in the Natural Environment Existing Conditions Technical Report in **Appendix B-3**.

4.6.6.9. Breeding Birds

Diurnal breeding bird surveys were completed at four (4) point count locations within the PSA. A total of 24 bird species were observed (see Table C-5 in **Appendix B-3**). Twenty-three (23) of the 24 species observed are considered Secure (SRank of S5) or Apparently Secure (SRank of S4) by the province. One species, European Starling (*Sturnus vulgaris*), is non-native and therefore, not considered a suitable target for conservation activities (SRank of SNA). None were provincially rare or Species at Risk.

4.6.6.10. Species at Risk

The *Endangered Species Act*, *2007* (*ESA*) came into effect in Ontario in June of 2008. The *ESA* applies to species listed as extirpated, endangered, or threatened under O. Reg. 230/08 on private and public lands under provincial jurisdiction and provides both species protection (Section 9) and habitat protection (Section 10). Under the *ESA*, habitat is defined as either General Habitat or Regulated Habitat. General Habitat is defined as the area a species currently depends on, either directly or indirectly, to carry out its life processes. General Habitat does not include areas where a species once lived and/or where in may be re-introduced. General Habitat protection is in place until a regulation is made prescribing an area as Regulated Habitat. Regulated Habitat is the area prescribed for a species in a habitat regulation (under clause 2(1)(a) of the *ESA*) and may include: specific features/boundaries and areas where the species lives, used to live, or is believed to be capable of living.

It is acknowledged that the Government of Ontario's proposed amendments to the *ESA* (ERO#025-0380) received Royal Assent as of June 5, 2025. These changes include repealing the *ESA* and enacting the *Species Conservation Act*, expected to be in effect prior to Project construction. Details pertaining to the *Species Conservation Act* are still being developed and have not yet been released to the public. As such, the ESR has been prepared to address those species afforded protection under the *ESA*, as this is the current legislation in effect at the time of preparation of the report. Hydro One will continue to assess the regulatory requirements and pathway as details evolve on the implementation and enactment of the *Species Conservation Act*.

The *SARA* was adopted in 2002 by the Government of Canada to protect SAR and their habitat. The *SARA* applies to species listed under Schedule 1 of the Act on federal lands and/or aquatic species, as well as migratory birds listed under the *Migratory Birds Convention Act*, *1994*, as well as Schedule 1 of the Act. Under *SARA*, species listed on

Schedule 1 receive species protection (Section 32) and residence protection (Section 33). Critical Habitat is defined under Section 2 of *SARA* as “the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species’ critical habitat in the recovery strategy or in an action plan for the species.”

A screening to identify potential SAR and SAR habitat within the LSA was completed in support of the natural environment field program. In total, 16 SAR were identified as having the potential to occur within the general vicinity of the LSA based on background review. The list of SAR with the potential to occur within the general vicinity of the LSA includes 5 bird, 8 mammal, and 3 plant species. For the full list of SAR with the potential to occur within the general vicinity of the LSA, refer to Appendix C, Table C-3 of the Natural Environment Existing Conditions Technical Report (**Appendix B-3**).

No SAR were recorded during field investigations on the provincially regulated lands in the PSA. During field investigations suitable habitat was identified for 8 of the 16 SAR with potential to occur, including 7 SAR bat species and Gray Fox.

Summaries of these 8 SAR and descriptions of suitable habitat for the species are provided in the following subsections.

4.6.6.10.1. Species at Risk Bats

Targeted surveys for SAR bats and bat habitat were not conducted as part of 2025 field investigations and no SAR bats were observed incidentally. However, indicators of bat habitat were observed, including potential maternity and day roost trees, as well as foraging habitat. All seven species of SAR bats (Eastern Red Bat, Eastern Small-footed Myotis, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, and Tri-coloured Bat) with both potential to occur within the general vicinity of the LSA and suitable habitat identified, have similar habitat requirements. These species typically roost in/on trees and forage for insects over terrestrial, wetland and aquatic habitat. Some species of SAR bats also roost in buildings. There is a high likelihood that SAR bats are present within the LSA.

Mitigation for potential impacts to SAR bats are provided in **Section 7.7.7**. In summary, direct impacts to SAR bats from tree clearing can be avoided if trees representing potential roosts are cleared during the non-active bat season (October to March). Further studies may be required to confirm the presence of SAR bat habitat in support of potential permitting under the relevant SAR legislation at the time of construction.

4.6.6.10.2. Gray Fox

Targeted surveys for Gray Fox were not included in the 2025 field investigations, and the species was not observed incidentally. Gray Fox can be found in various habitats including forest, swamp, thickets and fields, with a range of over 40 hectares. There is low to moderate potential for Gray Fox to be present within the PSA.

4.6.6.11. Significant Wildlife Habitat and Incidental Wildlife Observations

Species of Conservation Concern (SCC) are defined as:

- Species listed as Special Concern, Threatened, or Endangered under *SARA*;
- Species that are provincially rare/tracked (i.e., have a Sub-national (provincial) Rank of S1 – Critically Imperiled, S2 – Imperiled, or S3 – Vulnerable); and
- Species that are designated as Special Concern under the *ESA*.

Based on desktop background review, 22 SCC were identified as having the potential to occur within the general vicinity of the provincially regulated lands within the LSA. The list of SCC includes 4 birds, 7 herptiles, 5 plants, 3 lichen, and 3 insect species. For the full list of SCC with the potential to occur within the general vicinity of the LSA, see Appendix C, Table C-2 of the Natural Environment Existing Conditions Technical Report (**Appendix B-3**).

As the Project is located in Ecoregion 6E (Lake Simcoe-Rideau), the presence of significant wildlife habitat (SWH) was assessed according to the Significant Wildlife Habitat Technical Guide (MNR, 2000) and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNR, 2015). Habitat types considered include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for SCC, and animal movement corridors. Based on the background review results, the following candidate SWH were assessed as having the potential to occur within the PSA:

- Raptor Wintering Area:
  - Candidate SWH is present in forest, woodland, thicket, meadow, and agricultural communities within the PSA.
- Bat Maternity Colonies:
  - Candidate SWH is present in the forest communities. Snag density calculations or acoustic calling surveys have not been conducted.
- Turtle Wintering Areas:
  - Candidate SWH is present in the watercourses that were assessed for fish habitat. This includes Ramsay Creek as well as Mud Creek.

- Reptile Hibernaculum:
  - Candidate SWH is present in most of the PSA since reptile hibernacula may be found in any ecosite other than very wet ones. Open aquatic and cultural communities are excluded from candidate SWH.
- Special Concern and Rare Wildlife Species:
  - Candidate SWH for multiple species – refer to **Appendix B-3**.

SWH identified within the PSA was identified as candidate or ruled out using:

- Criteria outlined in the Ontario Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNR, 2015);
- Habitat mapping reviewed from aerial imagery; and
- Information collected during the 2025 field investigations.

SWH within the provincially regulated lands of the LSA, and the full list of SAR and SCC species with potential to occur within the vicinity of the LSA can be found in **Appendix B-3**.

Incidental observations of wildlife (including dens, tracks and scats, and other wildlife evidence) were recorded during the 2025 field investigations.

4.7. Recreational Resources

There are several outdoor recreation resource areas serving the region: the Ottawa River, the Rideau River, the Mer Bleue Conservation Area, and many smaller woodlands with recreational trails.

The Mer Bleue Bog Conservation Area is the second largest bog in southern Ontario. The bog is around 3,500 ha of wetlands and northern boreal landscape (NCC, 2017). The property offers several trails that traverse through the conservation area which are open year-round. A small portion of the Conservation Area can be found within the federally regulated portion of the PSA.

4.8. Visual and Aesthetic Resources

This factor considers the change to physical appearances across the landscape and their susceptibility to change as a result of the Project.

The Project is located within predominantly forested conservation land and wetlands with flat agricultural lands bordering either side. This landscape provides open and expansive views with natural elements including isolated woodlots, tree canopies of rural communities, wetlands, and forest cover. Existing vertical elements include traffic

and light standards, and existing transmission lines. Some of the residences have wide views of the agricultural lands, however, many of the properties have existing tree lined wind breaks and hedgerows that offer localized privacy from adjacent visual elements.

5.0 Identification of the Preferred Route

The Class EA for TF (February 2024) requires that, if technically reasonable alternative methods (such as routes or sites) are identified, they be assessed through a comparative evaluation.

Hydro One carefully considered a few options for upgrading the existing 230 kV transmission line and for the installation of a new 115 kV transmission line.

The first option explored through an initial feasibility study in 2024 was to install additional arms on existing structures to carry a 115 kV circuit. This option was not feasible for several reasons:

- Poor soil conditions and increased load created by installation of an additional circuit was likely to cause structure subsidence or failure.
- Compact phasing would have required a dual circuit outage[2], which would not be possible given current loads.
- A six-to-eight-month outage on Circuit H9A would have been required, which would have put some areas at risk of extended power outages.
- Circuits H9A and A25S are subject to galloping[3]. This issue could have been alleviated with installation of interphase spacers, but crane access along the entire length of the route would have been required.

The second option was to locate the proposed 115 kV transmission line outside of the existing transmission corridor, but was eliminated for the following reasons:

- The existing transmission corridor is the shortest distance between Hawthorne TS and Orléans TS.
- An alternate route outside of the existing transmission corridor would cross built areas of Ottawa and would require buyouts of numerous properties and removal of existing homes and businesses due to the built-up nature of the area.
- Locating a new transmission line next to existing or planned linear infrastructure such as municipal roadways or rail trails would still require additional corridor width of up to 30.5 m.

[2] Outage – Circuits are taken out of service for safety reasons during certain maintenance or construction activities. Most areas of the province have redundancy which means that a power outage that people would experience in their homes and businesses does not occur.

[3] Galloping – when conductors oscillate due to wind or ice loading. Extreme galloping can damage conductors, reduce clearances below safety margins, and even result in flash-over.

- Following existing or planned linear infrastructure outside of the existing transmission corridor would substantially increase the length of line required, affect additional area, and substantially increase cost.
- Substantial additional tree removal and habitat loss would be required.
- Additional agricultural land would be affected.
- Additional access routes would be required which could open new areas to informal use.

Hydro One attempts to parallel existing transmission lines whenever feasible in planning for new transmission lines. Similarly, as presented in **Section 4.4.1**, the PPS encourages the co-location of linear infrastructure. Co-location of infrastructure provides several benefits such as efficiency during construction and maintenance by utilizing existing access roads and limiting construction impacts to the existing ROW.

Hydro One has determined that the Project can be completed largely within the existing transmission corridor between Hawthorne TS and Orléans TS. Consequently, developing and assessing alternative routes was not necessary for this Project. This Class EA study was focused on consultation and impact assessment with respect to the preferred route (**Figure 1-1**).

6.0 Project Description

To support growing electricity demand in the Orléans area, Hydro One proposes to:

- Upgrade an existing 115 kV transmission line extending from just east of Highway 417 near Hawthorne TS to Orléans TS to 230kV – no modifications to this line are required to upgrade to 230 kV as it already has the appropriately sized conductor and insulators;
- Install a new 115 kV transmission line from just east of Highway 417 to Orléans TS in the centre of the existing transmission corridor;
- Install a new 230 kV transmission line, approximately 900 metres in length, from Hawthorne TS to just east of Highway 417 to connect to the circuit being upgraded to 230 kV; and
- Modify equipment within the existing transformer stations to accommodate the increase in capacity, including installation of a new 230 kV circuit breaker and new battery buildings at Hawthorne TS, and replacement of an existing 115 kV autotransformer with a 230 kV autotransformer at Orleans TS.

The new 115 kV line will mainly consist of what are commonly known as ‘H’ frame pole structures (composite, steel, or wood, see **Figure 6-1** for an example). Lattice tower structures (see **Figure 6-2** for an example) will be required for station egress at Hawthorne TS, to ensure vertical clearance above Highway 417 and to facilitate circuit change over on the east side of Highway 417.

Figure 6-1: Example of 'H' Frame Pole Structure

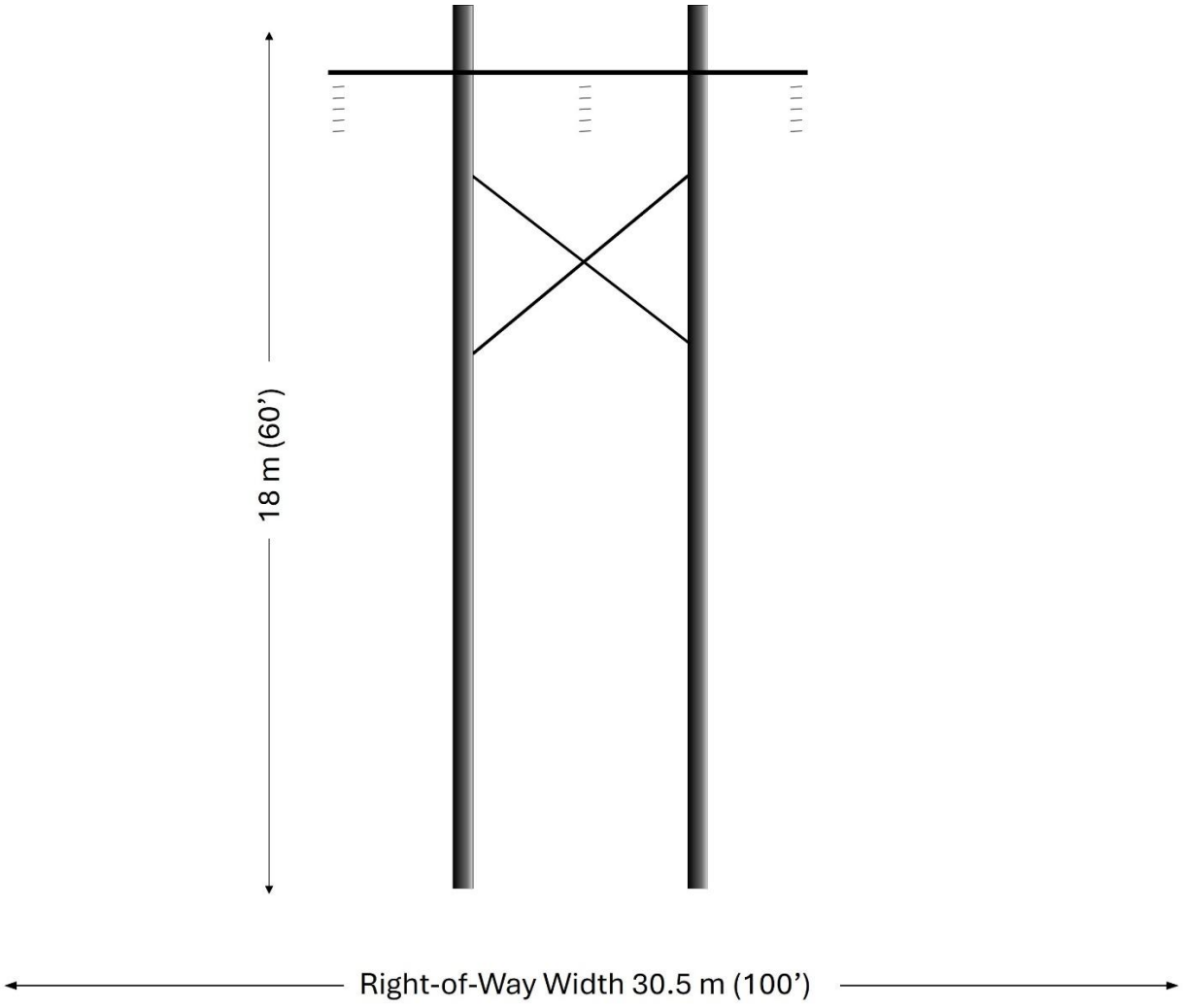
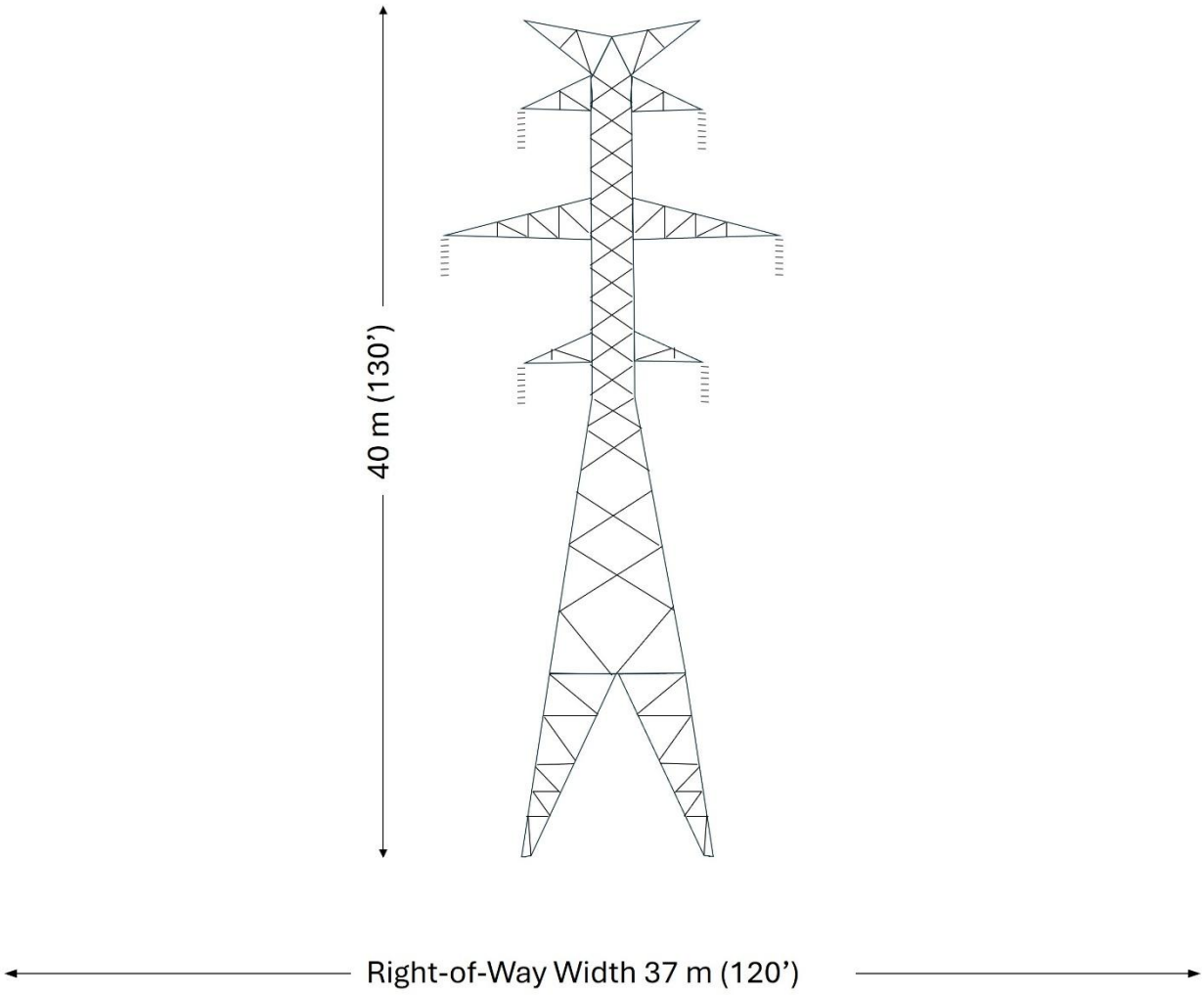


Figure 6-2: Example of Lattice Tower Structure



6.1. Design Phase

Following completion of the Class EA process, detailed engineering and design for the proposed Project will be undertaken. The final design plans will be based on necessary surveys, including a geotechnical survey, and consultation with stakeholders including the NCC, City of Ottawa, MTO, and private property owners. During the design phase, additional studies and surveys (e.g., Stage 2 AA, geotechnical investigations) will be conducted as required. Concurrent with finalization of the design, required permits, licences, and approvals (as listed in **Section 1.4.4**) will be obtained. Hydro One will also finalize restoration plans in consultation with appropriate stakeholders and the local communities, as necessary.

Hydro One recognizes a changing climate is likely to result in an increase of unusual weather patterns and severe weather events, which could potentially damage or adversely affect infrastructure and other public facilities. Hydro One is confident the facilities being planned for this Project will be engineered to adequately withstand effects of climate change throughout the duration of their planned lifespan.

6.2. Construction Phase

Construction activities will be guided by Hydro One standards and guidelines as well as Project-specific documents, which all construction personnel including contractors and sub-contractors will be required to adhere to. In addition, a project-specific Environmental Management Plan will be prepared, outlining specific requirements to be followed for the proposed Project.

Prior to construction, a detailed construction plan will be developed. Construction activities will be restricted to designated work areas and protective barriers, such as fencing, will be erected to protect features from construction related effects.

Throughout the construction period, an Environmental Specialist will be available to address unforeseen environmental effects and mitigation requirements. The Environmental Specialist will monitor activities to ensure conformance with the requirements set out in the Environmental Management Plan.

Should any archaeological finds be uncovered during construction, work in the vicinity will stop immediately pending assessment by the Project archaeologist and further consultation with the MCM – Heritage Program Unit, as well as the appropriate Indigenous communities.

Upon completion of construction, clean up and restoration (e.g., seeding, plantings) of areas disturbed by construction will occur, as required. Documents covering ongoing commitments, including monitoring and notification requirements will be prepared, and operation and maintenance staff will be briefed, as necessary.

Temporary facilities for the purpose of the proposed Project may include equipment staging areas and temporary stockpile areas, temporary rider poles or similar protective measures required during conductor stringing, and temporary structures near the transformer stations for the staging of outages. Temporary facilities will be required prior to, and during, the construction period. The location of the temporary facilities will be determined by the Project team and their contractor(s) during detailed design/construction planning.

Construction of the new 230 kV transmission line from Hawthorne TS to just east of Highway 417 will involve the following activities:

- Removal of incompatible vegetation within the transmission corridor;
- Installation of gravel access routes where none currently exist, and crane pads;
- Installation of foundations;
- Assembly and construction of steel transmission structures;
- Stringing new transmission conductors and lightning protection wire, referred to as “shieldwire;” and
- Clean up and site restoration.

Construction of the new 115 kV transmission line from east of Highway 417 to the Orléans TS will involve the following activities:

- Removal of incompatible vegetation (note: the new transmission line is in the middle of an existing transmission corridor and limited vegetation removal is required);
- Upgrading existing gravel access routes and installation of new gravel access routes where none currently exist. Gravel work pads will also be required at each structure location. In the Mer Bleue Bog area, temporary wooden rigging mats will be used instead of gravel;
- Auguring holes, setting wood or composite poles, and backfilling;
- Installation of new hardware and stringing new transmission conductors and shieldwire; and
- Clean-up and site restoration.

Modifications at Hawthorne TS will include:

- Installation of station entrance structures;
- Installation of a new 230 kV circuit breaker;
- Installation of two new battery buildings; and
- Installation of bus work, switchgear, and associated equipment.

Modifications at Orléans TS will include:

- Installation of permanent washroom facilities;
- Installation of new 230 kV transformer; and
- Installation of bus work, switchgear, and associated equipment.

6.3. Maintenance, Operation and Retirement Phases

The proposed Project is planned to be in service in 2029. The new 115 kV transmission line and the converted 230 kV transmission line would undergo regular maintenance in adherence with Hydro One's maintenance standards and regulatory requirements to maintain a safe and reliable electricity transmission system.

When transmission facilities become obsolete or unserviceable and/or deemed to be at end-of-life, the equipment is retired from service. Transmission facilities retired from service are often left in place (idle) for potential future use. The facilities may eventually be removed, and the site made suitable for other purposes. The foundations are typically cut back 1.0 m below ground surface when transmission structures are removed.

If a station site is suspected to be environmentally contaminated, the decommissioning of facilities will follow the guidance provided by O. Reg. 153/04 of the *Environmental Protection Act*.

6.4. Project Schedule

The anticipated schedule for the proposed Project activities is provided below in **Table** 6-1. This schedule shows key steps remaining in the Class EA process and subsequent anticipated timing of the start of construction.

Table 6-1: Project Schedule

Activity	Period
Draft ESR released for 30-day public review and comment period	October 20, 2025
Comment integration and response	November-December 2025
Filing of final ESR and Class EA Statement of Completion with the MECP	December 2025
Submission of Section 92 application to the Ontario Energy Board	December 2025
Ontario Energy Board Section 92 Approval	July 2026
Construction start	August 2026
Planned in-service date	2029 or earlier

7.0 Potential Effects and Mitigation Measures

This section describes the potential environmental and socio-economic effects and mitigation measures associated with both the short-term (construction) and long-term (operation/maintenance) activities of the proposed Project. The assessment of potential environmental and socio-economic effects for the proposed Project considered the baseline information on the environmental and socio-economic features collected for the PSA, as presented in **Section 4.0**.

The assessment is focused on the provincially regulated lands in the LSA, which are the subject of this Class EA, as the federal NCC-owned lands are the subject of a separate regulatory process (**Section 1.4**).

The potential environmental and socio-economic effects resulting from the construction and operation/maintenance of the proposed Project are similar to other projects undertaken by Hydro One and are well understood by the Project team. Hydro One has a strong track record of environmental compliance and stewardship and is committed to the completion of comprehensive environmental and social analysis and mitigation of potential effects.

The selection of mitigation measures is based on the following seven guiding principles:

- Avoidance of sensitive areas, where practical;
- Avoidance of watercourse crossings, where feasible, by use of an existing nearby crossing, access to structures from either side of the watercourse, or use of off-corridor access;
- Appropriate timing of construction activities, where feasible, to avoid sensitive time periods, such as fish spawning and egg incubation periods or migratory bird nesting periods;
- Proactive communication with landowners, businesses, and interested community members on the proposed Project timelines and construction areas;
- Proactive communication with Indigenous communities, government agencies, stakeholders, and interest groups regarding the proposed Project;
- Implementation of conventional, proven mitigation measures during construction consistent with the criteria set out in Appendix E of the Class EA

for TF (Hydro One, February 2024), and in accordance with applicable legislative requirements; and
- Development of environmental enhancement or compensation measures to offset the net effects of the Project where such effects exist.

Based on the Project design and implementation of the proposed mitigation measures, no significant adverse net effects (e.g., effects following the implementation of mitigation) are anticipated. The following subsections detail the effects assessment and avoidance, mitigation, and/or compensation commitments for the proposed Project.

7.1. Agricultural Resources

Agriculture is not a predominant land use within the urban boundaries of Ottawa; however, agriculture is an important component of the regional economy (Ottawa, 2025). The PSA is dominated by Class 3 soils, which are considered Prime Agricultural Areas, and Organic soils within the Mer Bleue Bog. The preferred route is not anticipated to have significant long-term effects on agricultural operations in the area; however, there may be temporary effects associated with construction. Potential effects from the Project include:

- Permanent loss of agricultural production on lands within the physical footprint of the new structures;
- Temporary loss of agricultural production associated with construction activities in the ROW;
- Temporary soil compaction from construction vehicles;
- Potential for construction activities to mix soil horizons, lowering the quality of soil or mixing of soil across agricultural properties;
- Potential disturbance to farm operations including planting and harvesting schedules, spraying and tilling activities;
- Removal of sections of agricultural hedgerows;
- Application of herbicides within the ROW with potential to spread into adjacent farm operations;
- Potential damage to field tile drains; and
- Potential for transmission line interference with automated Global Positioning System (GPS) guided farm equipment.

While some of the effects to agricultural operations will be long-term and result in net effects, many are temporary and can be mitigated with diligent construction planning and implementation of mitigation measures during construction. No significant net effects to agricultural resources are anticipated. The following subsections outline the

effects assessment for each potential effect and outline anticipated avoidance, mitigation, and/or compensation strategies to be employed by Hydro One.

7.1.1. Loss of Agricultural Lands and Crops

The Project may result in temporary removal of planted/established crops and/or lands available for crop production to facilitate construction activities within the transmission line ROW. Also, some agricultural lands will be permanently lost because of Project infrastructure (e.g., structure locations). All lands out of production and crops lost as a result of the Project's construction activities will be compensated in accordance with Hydro One's crop loss/crop lands out of production policies. Additionally, the following mitigation measures are proposed for effects to agricultural lands and crops:

- Contact will be maintained with landowners and stakeholders regarding work schedules and other items of interest (e.g., access roads, minimizing disturbances to existing and planned farm operations, etc.);
- Where practical, some construction and maintenance activities will be scheduled to avoid the growing season or sensitive times of year (e.g., extreme wet periods), although it is recognized that this will not be possible in all circumstances;
- Temporary gravel access roads, work pads around each structure location, and stringing pads, will reduce soil compaction and allow for all-weather access without causing rutting or topsoil/subsoil mixing;
- Temporary access roads and work pads will be built using gravel overlying heavy duty geotextile to facilitate removal when construction is complete to allow for re-cultivation of the area;
- Temporary access roads, pads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment;
- Work will be limited to the planned access roads, work pads, and puller/tensioner pads. If a later expansion to these areas is required, it will be discussed with the relevant landowner(s) in advance;
- Existing farm lanes and other existing access roads will be used whenever practical. In the event farm lanes are absent, access will be focused within the ROW or along field edges, to the extent practical; and
- Restoration measures, as informed by discussions with landowners (e.g., alleviate soil compaction, remove excess aggregate, etc.) on areas affected by construction, may be undertaken following the completion of construction and removal of temporary construction access, as necessary.

7.1.2. Soil Compaction

Project activities have potential to cause soil compaction through the use of heavy equipment. Compaction of soil may occur during both the construction and operation/maintenance phases of the Project. Soil compaction resulting from these activities is largely unavoidable and is anticipated to be temporary in nature. Measures to mitigate soil compaction include:

- Equipment with low bearing capacity will be used, where practical;
- Access will be located along existing farm lanes or field edges, where practical;
- Access roads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment;
- Work will be limited to the planned access roads, staging areas, and work areas. If a later expansion to these areas is required, it will be discussed with the landowner in advance;
- Temporary gravel access roads, work pads around each structure location, and stringing pads, will reduce soil compaction and allow for all-weather access without causing rutting or topsoil/subsoil mixing;
- Temporary access roads and work pads will be built using gravel overlying heavy duty geotextile to facilitate removal when construction is complete to allow for re-cultivation of the area; and
- Restoration measures, as informed by discussions with landowners, to cultivate or otherwise alleviate soil compaction on areas affected by construction, may be undertaken following the completion of construction and removal of temporary construction access, as necessary.

7.1.3. Soil Mixing

Mixing of soil including soil horizons and movement of soil between property parcels is a potential effect of the Project. Excavations may be required for construction activities. Excavation has the potential to result in mixing of soil horizons, reducing the quality of surface topsoil for agricultural purposes. This effect is anticipated to be minimal and limited to areas of deep ground disturbance (e.g., some footing locations) but may be permanent. Additionally, movement of construction equipment through the ROW may cause migration of soils from one agricultural field to another. Mitigation measures to minimize topsoil and subsoil mixing will include:

- Where cost, geotechnical conditions and engineering requirements allow, foundation types (such as helical piles or auguring for pole structures) that

minimize surface disturbance and do not require soil excavation or soil stripping of the foundation site will be used;
- Stripping or excavation of soils will be minimized to the extent practical;
- Where soil stripping is required, topsoil and subsoils will be removed and stockpiled separately;
- Depths of soil being removed will be carefully monitored and minimized during stripping activities;
- Volume of topsoil and subsoil salvaged for replacement or re-use on site will be maximized, where practical;
- Soils will be stripped under generally dry conditions (not saturated), such that rutting, soil mixing, or other undesired ground disturbance is minimized to the extent practical;
- Vegetation, stone piles, fencing, and deleterious materials will be removed prior to stripping;
- For backfilling operations, topsoil and subsoil will be replaced in reverse order of excavation to minimize the potential for additional mixing and maximizing future growing potential;
- Soil cover on exposed areas within agricultural areas will be discussed with the landowner for the most appropriate solution;
- Equipment and vehicle inspections and cleaning will be conducted using a risk-based approach, whereby vehicles and equipment that have come in contact with soils will be inspected and cleaned of dirt/debris/seeds; and
- Cleaning will occur in a manner that ensures that runoff is contained, and waste materials can be collected.

7.1.4. Disturbance to Farm Operations

Project activities will require construction and maintenance of the transmission line ROW. Effects to agricultural operations from construction and maintenance activities may include impediments to farm vehicle maneuverability or disruption to farm operations including planting and harvesting or tilling and spraying. Generally, disruption effects are anticipated to be temporary in nature and can be mitigated by:

- Where practical, the location of structures will be placed to minimize impacts to maneuverability of agricultural equipment (e.g., along lot lines or field boundaries, or in-line with existing structures);
- Contact will be maintained with affected landowners regarding work schedules and other items of interest (e.g., access roads, minimizing disturbances to farm operations, etc.);

- Access roads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment;
- Work will be limited to the planned access roads, staging areas, and work areas. If a later expansion to these areas is required, it will be discussed with the landowner in advance;
- To the extent practical, some construction and maintenance activities will be scheduled to avoid sensitive times of the year for agricultural operations, although it is recognized that this will not be feasible in all circumstances; and
- Constructed access roads will be smooth and tapered to allow for vehicular, pedestrian, and equipment crossings, where applicable.

7.1.5. Vegetation Removal

Construction of the transmission line ROW will require removal of 0.05 ha (500 square metres) of incompatible vegetation including trees typically found in hedgerows or windbreaks. Incompatible vegetation communities on provincially regulated lands associated with the Project include the following:

- Fresh-Moist Poplar Deciduous Woodland Type (WODM5-1) – 0.01 ha; and
- Dry-Fresh Deciduous Woodland Ecosite (WODM4) – 0.04 ha.

Construction and maintenance activities may require mechanical removal of vegetation (tree felling) and/or application of herbicides to species incompatible with overhead transmission lines. Effects from vegetation removal include potential for herbicide overspray and/or fragmentation of existing hedgerows and windbreak systems. Vegetation that will not affect construction or line clearances will be retained, where possible.

Construction and maintenance activities have potential to utilize herbicides to control noxious weeds and/or incompatible vegetation. There is also potential for inadvertent movement of trace soils between agricultural fields. Chemical control methods have potential to overspray to adjacent crops and movement of soils has potential to transport undesirable soil types and compounds. To minimize potential disruption to agricultural operations, the following mitigation measures will be implemented:

- Contact will be made with landowners to determine if organic or Integrated Production (IP) operations are present which may require additional considerations during construction planning;
- Equipment and vehicle inspections and cleaning will be established during construction to minimize the potential for inadvertent transport of trace soils;

- Cleaning will occur in a manner that ensures that runoff is contained, and waste materials can be collected;
- Field crews will be informed if working in organic or IP croplands; and
- Mitigation strategies will be discussed with landowners prior to construction and field crews will be informed of the required mitigation and monitored to ensure these strategies are properly implemented.

7.1.6. Damage to Field Tile Drains

The use of heavy equipment for construction and maintenance activities has potential to damage agricultural tile drains. If damage to tile drains occurs from construction or maintenance activities, small repairs may be carried out by Hydro One construction crews who are familiar with the work in coordination with the affected landowner. If major repairs are required, a licensed tile drainage contractor will be retained in consultation with the affected landowner. To minimize potential for tile drain damage, the following mitigation measures will be implemented for the Project:

- Landowners will be consulted to determine existing field tile locations in support of avoidance/protection measures;
- Tile drains will be avoided and/or protected (e.g., structure locations, temporary construction access), to the extent practical;
- Access roads, work pads, and stringing pads will be contained to a minimum length and width required to accommodate the safe movement of construction equipment;
- Work will be limited to the planned access roads, staging areas, and work areas. If a later expansion to these areas is required, it will be discussed with the landowner in advance;
- Where temporary access roads and work pads are built in tiled agricultural areas, gravel overlying heavy duty geotextile will be utilized to protect tile drains;
- Equipment with low bearing capacity will be used to minimize potential damage to tile drains, where practical; and
- Where practical, some construction and maintenance activities will be scheduled to avoid sensitive times of the year (e.g., extreme wet periods), although it is recognized that this may not be feasible in all circumstances.

7.2. Forestry Resources

As noted in **Section 4.2**, the proposed Project does not have the potential to affect forestry resources.

7.3. Archaeological Resources

As noted in **Section 4.3.1**, a Stage 1 AA (Matrix Heritage, 2025) found that, based on criteria outlined in the Standards and Guidelines for Consultant Archaeologists Section 1.3 (2011), the study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential requiring Stage 2 assessment. Additional Stage 1 assessment will be required if any Project impacts are planned beyond the limits of the Stage 1 study area (see mapping in Stage 1 report in **Appendix B-1**). The extent of permanently wet areas and areas of deep and pervasive disturbance will also be confirmed during Stage 2 assessment. Should these areas meet the criteria for exclusion at the time of assessment, survey of these areas is not required. Areas previously assessed and recommended do not require Stage 2 archaeological assessment under the MCM Standards and Guidelines for Consultant Archaeologists (2011).

The recommendations of the Stage 1 AA will be followed. Any further recommended assessment (e.g., Stage 2, 3, 4 AAs) will be completed as early as possible in the detailed design phase and prior to any ground disturbing activities.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out an archaeological assessment, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act*, 2002, S.O.2002, c.33 requires that any person discovering human remains must cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with Ontario Regulation 30/11 the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial services. In situations where human remains are associated with archaeological resources, the MCM should also be notified (archaeology@ontario.ca) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

In addition, all Indigenous communities that have an interest in the Project and/or location will also be immediately contacted so that, in the event such remains are Indigenous in origin, protocols are established.

7.4. Built Heritage Resources and Cultural Heritage Landscapes

As noted in **Section 4.3.2**, a CHRECPIA was completed for the Project by Matrix Heritage (Matrix Heritage, 2026) and is included in **Appendix B-2**.

The study area for the CHRECPIA follows the transmission corridor from Hawthorne TS to Orléans TS and includes property parcels immediately adjacent to the Project area. See Map 2 in **Appendix B-2** for mapping of the cultural heritage study area. The CHRECPIA identified five properties of potential heritage value or interest based on being older than 40 years of age within the cultural heritage study area. The properties identified include two properties built sometime between 1965 and 1976 on Pagé Road, and three properties on Mer-Bleue Road: one property built prior to 1976, and two properties built prior to 1976 (estimated 1960s) (Matrix Heritage, 2026).

The properties identified are of limited or no heritage value in the categories of design, history, and context, which are the three main categories to be considered in heritage evaluations under Regulation 9/06 of the *Ontario Heritage Act*. Therefore, the CHRECPIA concludes that there are no properties of Cultural Heritage Value or Interest, and therefore there can be no potential impacts on heritage (Matrix Heritage, 2026).

7.5. Land Use and Communities

7.5.1. Business Operations

Project activities are not anticipated to impact existing industrial operations such as those located in the industrial park southwest of the Highway 417/Walkley Road (Regional Road 74) interchange. Business access will be maintained throughout construction; in instances where access cannot be maintained, arrangements will be made for alternate access prior to construction activities starting and appropriate road signage will be provided. Where seasonal businesses are identified, efforts will be made to avoid disruption during peak/busy seasons, to the extent practical.

Access to construction areas will be carefully designed to avoid and minimize adverse effects. Advanced notice will be provided to the following parties outlining the location of

entry/exit points for the construction site and the schedule for construction work or construction related traffic in those areas:

- Nearby residences, farmers, landowners, and commercial operations;
- MTO; and
- Emergency response services.

Road signage will also be created and installed to reflect this access information.

7.5.2. Existing and Future Land Use Designations and Potential Future Development

The Project is within the City of Ottawa municipal boundaries. The outline of land use policies and OP acceptable uses and how the Project fits into provincial policy and the City of Ottawa OP is outlined in **Section 4.4.1**. Generally, OPs include support towards energy transmission and investment in eastern Ontario. Specifically, the City of Ottawa OP allows for the provision of opportunities to develop energy supply including electricity transmission facilities in all land use types. Since the Project is proposed within an existing transmission corridor, no impacts to land use designations, existing or future, are anticipated.

Where and when future development projects or initiatives are proposed along or within the ROW for the Project, Hydro One will apply its existing processes to review and facilitate these developments, including potential compatible uses within the transmission line ROW. In addition, Hydro One will work with the City of Ottawa to consider potential means of accommodating potential future development during design of the transmission line, within the property fabric traversed by the transmission line ROW.

7.5.3. Local Roads and Traffic

The proposed Project is located within an urban/rural landscape, with most of the preferred route falling within an existing transmission corridor. Construction activities have potential to cause disruption to provincial highway traffic and to local traffic on municipal roads. Specifically, stringing conductors across roads and the construction of new access roads may require temporary road closures, rolling closures, lane occupancy, and/or detours. The presence of heavy equipment may also increase traffic and loads, which may result in localized wear and tear on lower order roadways. Effects

to traffic and roadways are expected to be minimal and temporary in nature. Potential disruption to airports/aerodromes and railway lines are not anticipated.

Temporary effects to roads and traffic are largely unavoidable. To mitigate potential impacts from construction activities, Hydro One will:

- Obtain required permits from the MTO and obtain approval for any necessary rolling lane closures prior to construction activities within and adjacent to the Highway 417 right-of-way;
- Obtain required permits from the City of Ottawa for any necessary work within City road rights-of-way or when moving oversized loads (e.g., temporary construction related encroachment, entrance permit, over dimensional vehicle permit);
- Adhere to seasonal load restrictions;
- Where required, a Traffic Control Plan will be developed and shared with the City of Ottawa, as necessary;
- Construction haul routes and schedules will be shared with the City of Ottawa in advance of construction, as necessary;
- Construction traffic will access the construction area from the existing road network at specified construction access/egress locations;
- Common parking areas will be established for construction crews;
- To the extent practical, in an effort to avoid road closures and other disruptions during stringing, conductor stringing will utilize rider poles, boom-tipped riders, or other protective measures, to the extent practical;
- If temporary road or highway closures (e.g., rolling closures) are required during stringing or other construction activities, Hydro One will coordinate closely with the appropriate road authority to provide proper notice, required signage, and traffic controls. The duration of any temporary closures will be minimized to the extent practical;
- Where construction work is planned to directly affect local traffic (e.g., temporary road or lane closures), local advertisements (e.g., radio, newspaper, etc.) will be issued and road signage will be erected to provide notification/pre-construction information to area residents on timelines and potential detours, if required; and
- Traffic control officers or flag persons will be assigned to assist with construction entry/exit, as necessary.

With the implementation of the mitigation measures described above, the proposed Project is not anticipated to have a long-term net effect on local roads and traffic.

7.5.4. Mud and Construction Debris

Construction activities may result in the accumulation of mud and construction debris on and adjacent to local roads in construction areas. These effects have the potential to migrate to areas outside of the construction zone.

Construction will be completed with general clean site policies enforced requiring pick-up and disposal of refuse and construction waste at an approved waste management facility on a regular basis. Mud related to construction activities will be removed from local roads and access roads as necessary throughout construction. Mud mats will be installed (as needed) as a mechanism to reduce the transport of debris off-site. Vehicles and equipment will be regularly inspected and washed and maintained at work areas as necessary. Formal cleanup and site restoration (e.g., restoration planting and seeding) will further minimize this potential effect as construction progresses and is completed.

With the implementation of the mitigation measures described above, mud and construction debris generated by the proposed Project is not anticipated to have a long-term net effect.

7.5.5. Electric and Magnetic Fields

EMFs are invisible fields that surround electrical equipment such as power cords, wires, and everyday household items like microwaves, televisions, and vacuums. EMFs are strongest when close to their source. As you move away from the source, the strength of the fields fades rapidly.

Hydro One has a dedicated team that regularly monitors global studies around EMF and ensures that our infrastructure is built and maintained following best practices and industry standards. We look to Health Canada, the World Health Organization, and the International Commission on Non-Ionizing Radiation Protection (ICNIRP), for guidance on EMF and our approach. Based on global studies which have and continue to be regularly monitored, these organizations indicate members of the public in the vicinity of transmission lines do not need to take precautionary measures to protect from fields produced by electricity at extremely low frequencies, which includes transmission infrastructure.

Hydro One has developed an Information Sheet that addresses concerns related to EMF and is available in **Appendix C**.

EMF values from the proposed Project are expected to remain significantly below the ICNIRP exposure guidelines.

7.5.6. Noise and Vibration

Construction and maintenance activities have the potential to affect ambient noise and vibration levels. These effects, in turn, may create temporary nuisance or disturbance effects for local residents, land users, and wildlife.

All work is expected to be completed using common construction methods. The noise and vibration associated with construction would most likely be a result of activities such as general site grading, foundations work, and construction traffic. Each of these activities require the use of various pieces of heavy equipment, such as bulldozers, front-end loaders, small trucks, backhoes, bobcats, dump trucks, compactors, concrete trucks, and/or cranes.

Noise and vibration effects are anticipated to be short-term, temporary, and transient during the construction period. Vibration is expected to be temporary in nature, occurring only during specific activities (e.g., driving liners for concrete footings), and limited to the immediate vicinity of the construction work area. Indirect noise disturbance effects on wildlife during construction can include temporary declines in habitat occupancy, as well as changes to mobility and feeding habitat patterns. Mitigation measures to reduce potential nuisance effects resulting from noise and vibration include:

- Where geotechnical conditions and engineering requirements allow, foundation types (such as auguring holes for pole structures) that minimize vibrations during construction will be used;
- Equipment and machinery used on site will be maintained in good working condition; and
- Use of compression hardware instead of implosive connectors for splicing conductor to limit noise and vibration.

Construction activities will conform to the City of Ottawa Noise By-law No. 2017-255, and noise by-law exemptions will be sought if work is required outside of the hours specified (e.g., overnight).

Noise sources and vibration levels from maintenance activities after construction would be variable, are expected to be limited to a short duration, and would occur periodically over the life of the proposed Project. Except for periodic maintenance activities (e.g.,

inspection from ground-based vehicles and vegetation maintenance, etc.), no additional noise or vibration sources are expected during maintenance of the proposed Project. Therefore, no additional mitigation is required during the maintenance and operation of the Project.

Station upgrades are planned at both Hawthorne TS and Orléans TS. No new noise-emitting equipment will be installed at Hawthorne TS. A new 230 kV autotransformer is required at Orléans TS and an Environmental Activity Sector Registration (Air emissions - noise) for the transformer replacement at Orléans TS will be required. The acoustic assessment will determine if any additional mitigation is required to reduce sound power at the station to remain within regulatory compliance.

With the implementation of the mitigation measures described above, noise sources and vibration levels generated by the proposed Project are not anticipated to have a long-term net effect.

7.6. Mineral and Petroleum Resources

7.6.1. Aggregate Extraction

As discussed in **Section 4.5**, there are no areas within the PSA used for the extraction of aggregate; therefore, no potential effects have been identified for the proposed Project.

7.6.2. Petroleum Resources

Two abandoned petroleum wells were identified within approximately 1.5 km of the preferred route. The Project is not anticipated to have a temporary and/or permanent effect on petroleum pools and/or operations in proximity to the proposed Project.

7.7. Natural Environment Resources

7.7.1. Physical Environment

7.7.1.1. Physiography and Geology

The existing physiography, topography and geology is expected to remain as is following the construction of the proposed Project. Therefore, no net effects on the physical environment have been identified.

7.7.1.2. Spills

During construction and maintenance activities, there is the possibility of spills from the release of oils and fuels from construction/maintenance vehicles and equipment. There are several mitigation measures to reduce the risk of spills and to minimize the effect in the unlikely event that a spill occurs.

An Emergency Response Plan as well as spill cleanup equipment will be maintained and readily accessible at all times during construction and maintenance activities. Refuelling of vehicles and equipment will be completed in designated locations, a minimum of 30 m away from sensitive receptors (e.g., source water protection areas, watercourses, wetlands, etc.) while utilizing emergency spill trays. In the event refuelling is required outside of designated areas, additional containment or other mitigation and spill prevention measures will be utilized. Fuelling operations will require the operator to visually observe the fuelling process at all times.

Additional mitigation measures to reduce the risk of spills and to minimize the effect in the unlikely event that a spill occurs include the following:

- Equipment will be inspected regularly during construction to ensure it is clean and free of leaks;
- Areas impacted by a spill will be secured, and unauthorized personnel will be kept out of the affected area until further assessment and/or clean-up is conducted;
- Clean-up and the disposal of contaminated materials will be managed in accordance with provincial regulations and guidelines;
- Fuels, chemicals, lubricants, or other deleterious substances will be stored on level ground in properly contained storage areas;
- Only approved aboveground petroleum storage tanks will be used during the construction phase of the Project and will be stored in designated fuelling areas and with additional temporary containment measures; and
- The RVCA, SNCA, and the City of Ottawa will be consulted, as required, to undertake the proper action for managing the potential threats to source water protection areas.

Should a reportable spill occur, the MECP Spills Action Centre will be notified and containment and remediation measures undertaken.

7.7.1.3. Waste Generation

Construction waste will be generated by the proposed Project and will be disposed of at appropriate waste reception or recycling facilities. Waste produced during the construction period may include non-hazardous wastes (packaging, spent lubricating cartridges, coffee cups, etc.) and hazardous wastes (pneumatic oils from hydraulic systems, gasoline, and other lubricants/oils).

Hazardous waste (solid and liquid) will be transported by MECP licensed waste haulers to MECP registered disposal sites. Good management practices are recommended to prevent spills and contamination during construction (see above). Any temporary waste on-site will be stored in secured containers in designated sites away from sensitive areas and removed from the site on an ongoing basis.

All water from concrete chute washing activities will be contained in leak proof containers or in an approved settling pond off site. Waste produced will be minimized, segregated, and recycled where possible, and all testing, handling, storage, transport, and disposal of waste will be completed in accordance with all applicable legislation.

With the implementation of the mitigation measures described above, waste generated by the proposed Project is not anticipated to have a long-term net effect.

7.7.1.4. Excess Materials Management

Project activities have the potential to produce excess materials during construction and maintenance phases. Excess materials can include topsoil and subsoil from excavation or stripping activities. All efforts will be made to reuse soils onsite where practical and feasible; however, excess materials that cannot be managed onsite will be handled in accordance with O. Reg. 406/19.

Soil testing to meet the requirements of O. Reg. 406/19 will be completed, if necessary, during geotechnical investigations prior to or during construction. If excess material is deemed suitable, Hydro One will work with landowners to explore opportunities for beneficial reuse within the property parcel. Reuse sites will be selected based on the characterization of excess soils, the need for a beneficial reuse and the volume of excess soils required. Any excess soil required to leave the site will be tracked from the Project area to the final deposit site, if required, and taken to an approved facility licensed to accept excess soil based on its characterization or other off-site location that can demonstrate beneficial reuse.

7.7.2. Atmospheric Environment

7.7.2.1. Climate Change

The proposed Project will not emit greenhouse gases during operation. However, there will be temporary emission of fossil fuels from the vehicles and equipment used during construction and maintenance activities associated with the proposed Project. Idling of construction vehicles and equipment will be kept to a minimum and GPS or other navigational tools will be utilized to optimize routing to reduce fossil fuel emissions. The emissions directly related to the construction and maintenance of this Project would be minimal.

Hydro One recognizes that a changing climate is likely to result in an increase of unusual weather patterns and severe weather events, which could potentially damage or adversely affect infrastructure and other public facilities. The infrastructure being planned for this Project will be engineered to adequately withstand the effects of climate change.

7.7.2.2. Air Quality

Construction activities have the potential to create temporary, localized effects on air quality in the immediate vicinity of the proposed Project. Emissions from construction activities are primarily comprised of fugitive dust and combustion products from the movement and operation of construction equipment and vehicles. These emissions, in turn, may create a nuisance or disturbance effect for local residents and land users during the construction phase.

During construction, equipment and machinery will be maintained in good working condition to minimize excessive exhaust. Idling of construction vehicles and equipment will be kept to a minimum and GPS will be available in vehicles to optimize routing to reduce fossil fuel emissions. Additional mitigation measures to reduce nuisance effects of dust and air emissions during construction include the following:

- Vehicles will not exceed posted speed limits;
- Minimize and stabilize vehicular traffic and exposed soils in high traffic areas with suitable cover material;
- Avoid excavation and other construction activities that have the potential to release airborne particulates during windy periods, to the extent practical;
- If excavation or other construction activities with a potential to release airborne particulates must occur during windy conditions, dust controls will be utilized;

- Effective dust suppression techniques, such as on-site watering, will be implemented as necessary. Non-chloride dust suppressants will be used;
- Cover or otherwise contain loose construction materials with the potential to release airborne particulates during transport, installation, or removal to the extent practical; and
- Disturbed areas will be restored as soon as practical to minimize duration of soil exposure.

Emissions from maintenance activities during operation will be variable, are expected to be short-term, and would occur periodically over the life of the proposed Project. Nuisance effects posed by these temporary activities are expected to be negligible and would not result in noticeable or long-term changes to local air quality.

7.7.3. Noise and Vibration

There is the potential for increased noise and vibration during the construction and maintenance activities; however, as noted in **Section 7.5.6**, they are anticipated to be short-term, temporary, transient, and intermittent. This is because the proposed Project is linear, and activities would be planned sequentially. The duration of construction and maintenance activities at any one location along the transmission line corridor would be limited and intermittent, thereby reducing the duration of noise and vibration at any given area.

Station upgrades are planned at both Hawthorne TS and Orléans TS. No new noise-emitting equipment will be installed at Hawthorne TS. A new 230 kV autotransformer is required at Orléans TS to replace the existing 115 kV transformer. An Environmental Activity Sector Registration (Air emissions - noise) for the transformer replacement will be required. The acoustic assessment will determine if any additional mitigation is required to reduce sound power at the station to remain within regulatory compliance.

7.7.4. Surface Water Resources

During construction and certain maintenance activities, the potential effects of the proposed Project on surface water include changes in surface water quantity or quality conditions in nearby watercourses. These changes may be caused by site preparation, earthworks, discharge of construction water, and operation of vehicles and equipment.

7.7.4.1. Surface Water Quantity

Project activities during the construction phase that have the potential to influence surface water quantity conditions in nearby watercourses include:

- Site preparation for the new transmission structures, construction of access roads, temporary work pads at each structure location, and temporary stringing pads;
- Construction adjacent to municipal drains, watercourses, and wetland areas; and
- Discharge of construction water from dewatering activities.

Site preparation, including activities such as removal of vegetation, locates/daylighting of potential existing buried utilities, and construction of temporary access roads would be required in support of transmission structure installation. Vegetation removals during construction have the potential to result in the following effects:

- A temporary increase in overland flows;
- Potential organic and sediment loading to nearby municipal drains and watercourses; and
- Potential water temperature increases in instances where vegetation removal adjacent to watercourses is required.

Similarly, vehicle and construction equipment have the potential to create temporary rutting in soils which have the potential to result in localized ponding and/or channelization leading to additional erosion of soils.

7.7.4.2. Vegetation Removals and Soil Rutting

To avoid or minimize the potential adverse effects related to vegetation removals and soil rutting on surface water quantity, the following mitigation measures would be implemented:

- Where practical, activities with potential to cause rutting, ponding/channelization or erosion will be planned during stable and dry ground conditions;
- Existing watercourse crossings and constructed access roads will be utilized to the extent practical;
- Erosion and sediment control (ESC) measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be utilized, where necessary;
- Constructed access (e.g., mats or geotextile/crushed stone) roads will be utilized where possible and will be monitored to ensure there is no surface ponding to minimize rutting and pooling of water;
- Equalizing culverts will be installed under constructed access routes where necessary to prevent water pooling and allow for overland flow;

- Where erosion is a concern, exposed soils in previously vegetated areas will be re-vegetated as practical or have other erosion or sedimentation measures applied as necessary;
- Where applicable and possible, vegetative buffers will be maintained to protect receptors;
- Construction access and laydown areas will be restored following completion of construction;
- Work will be staged to minimize the extent of exposed soils (i.e., bare soils without vegetative cover or ESC such as coir blankets) at any given time;
- Topsoil will be stockpiled in designated areas away from water features and will utilize containment measures such as ESC as appropriate;
- Disturbed areas will be stabilized and restored as soon as practical;
- Equipment operation adjacent to watercourses and wetlands will be minimized, where possible;
- Works adjacent or around water feature banks will be conducted during appropriate conditions and times of the year (e.g., dry or frozen conditions), to the extent practical;
- Vegetation removals will be minimized to the extent practical. Compatible vegetation will be retained within riparian areas adjacent to watercourses;
- The limits of vegetation clearing will be clearly marked;
- Tree limbs will be disposed of by chipping or removal to designated areas - chipping is not permitted in or near watercourses;
- Woody material will not be burned;
- Stumps will be cut flush to ground where possible;
- Machine clearing and grubbing will be restricted near sensitive environmental areas; hand clearing will be required within watercourse banks/riparian areas;
- Replant with compatible vegetation (e.g., shrubs and native seed mix) as required;
- Chips spread on the right-of-way will not exceed 15 cm in depth to allow for vegetation re-growth;
- Lop and scatter will be used in sensitive areas;
- Salvable wood will be removed in sensitive areas by winching or by hand where possible;
- Skidding on steep slopes or through watercourses and wetlands will not be permitted;
- Brush will not be piled within 15 m of any watercourse; and
- RVCA and SNCA will be consulted, where appropriate, regarding ESC measures within regulated areas during detailed design.

With the implementation of the mitigation measures described above, vegetation removals and temporary soil rutting are not anticipated to have a long-term net effect on surface water quantity in the receiving watercourses.

The Project is predominantly located within a rural environment. It is anticipated that the proposed Project will utilize existing access routes wherever practical, and the number and location of access roads would be established during the detailed design phase. Access roads will be chosen to avoid crossing watercourses, or use existing crossings, where practical.

7.7.4.3. Access Roads

To avoid or minimize the potential adverse effects associated with the installation of access roads on surface water quantity, the following mitigation measures would be implemented:

- Access roads, work pads around each structure location, and stringing pads will be removed following construction on agricultural land;
- On non-agricultural land, access roads may be left in place depending on the nature and environmental sensitivity of the area, landowner agreement, and need for maintenance and access for emergency repairs in the future; Existing, natural drainage patterns and flows will be identified and maintained to the extent practical;
- Equalization culverts or similar methods may be used in construction of access roads. If surface water accretion issues are identified during construction, remedial measures (e.g., retroactive installation of equalization culverts within temporary access roads) will be undertaken promptly;
- Existing watercourse crossings and constructed access roads will be utilized to the extent practical;
- Construction and access planning will consider tile drains to ensure continued function of drainage tiles to the extent practical. Discussions with landowners will be held where further information is needed to avoid adverse effects; and
- ESC measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be used where necessary;
- Watercourse crossings will not be permitted unless there is a formal crossing structure in place (e.g. bridge, culvert, or constructed ford);

- Where required, crossing structures (e.g., bridges, culverts, or constructed fords) will be installed for construction access at watercourses and other low-lying areas and will be removed upon completion of construction – these may be removed following construction or left in place to facilitate future maintenance and access if emergency repairs are required;
- Crossing structures will be designed to accommodate the appropriate flood levels for the length of time they are planned to be in use;
- Permits will be obtained under S. 28 of the *Conservation Authorities Act* prior to installing any crossing structures;
- Specific ESC measures for each crossing will be included in permit applications; and
- A Request for Review will be submitted to the Department of Fisheries and Oceans if the work does not meet conditions in a code of practice.

With the implementation of the mitigation measures described above, installation of temporary and permanent access roads is not anticipated to have a long-term net effect on surface water quantity in the receiving watercourses.

7.7.4.4. Potential Effects on Surface Water Quality

Project activities during the construction phase that have the potential to influence surface water quality in nearby aquatic features (e.g., watercourses) include:

- Site preparation for the new transmission structures, construction of temporary and permanent access roads, and temporary laydown areas;
- Earthworks associated with the construction of access roads, temporary work pads, stringing pads, etc.;
- Discharge of construction water from dewatering activities to nearby lands; and
- Operation of vehicles and equipment throughout the construction phase.

Site preparation would consist of removal of vegetation, topsoil stripping and rough grading (where necessary), and stockpiling of materials. These activities would result in the temporary exposure and disturbance of soil with the potential for wind and water erosion and the transport of sediment to aquatic features. Site preparation would also result in the temporary accumulation of cleared vegetation with the potential for mobilization of organic debris and its transport to aquatic features during runoff events. Earthworks would consist of excavation, fill, and stockpiling activities, and would similarly result in disturbance and exposure of soil to wind and water erosion and the

transport of sediment to aquatic features. It is expected that the transmission ROW associated with the proposed Project will be restored to similar grades at the various areas of disturbance.

Earthworks may also be required for the construction of any required temporary access roads, temporary laydown areas, and pulling pads within the various disturbed work areas along the transmission line ROW. Stockpiling of soil and aggregate materials will also be required in support of earthworks. Access roads, if required, are planned to be installed using heavy duty geotextile which is easily removable.

Earthworks for the construction of temporary laydown areas, pulling pads, etc., would consist of excavation, fill and sub-grade preparation, followed by the installation of crushed stone overtop of geotextile fabric. Soil and aggregate materials would be stockpiled. Earthworks would also potentially be required during foundation preparations, though, depending on the technology, this may not be required. Earthworks to support the above activities would include stockpiling of soil and aggregate materials.

The measures outlined above to avoid or minimize potential impacts the proposed Project may have on surface water quantity will also serve to avoid or minimize the potential adverse effects of site preparation and other earthwork activities on surface water quality in aquatic features.

In addition, and in support of site preparation and earthwork activities, the following ESC measures will be implemented as a mechanism to avoid and minimize impacts on surface water quality:

- An ESC plan will be developed prior to construction and ESC measures will be identified and implemented as required. Measures such as erosion blankets/coir mats, silt socks, etc., or similar, are expected to form part of the ESC plan, where appropriate;
- Areas with high erosion potential will be identified and avoided, where possible;
- Construction activities near sensitive features or areas may be suspended during extreme wet weather events, and crews will review and consider weather forecasts in their planning of such work;
- ESC installations will only be removed after disturbed areas are restored, accumulated sediment has been disposed, and construction activities in the vicinity are completed;

- To reduce potential erosion, mechanical or vegetation erosion control measures will be employed, such as buffer strips, erosion control blankets and sediment fences, as required;
- Equipment operation on slopes adjacent to streams will be minimized to the extent practical;
- Disturbed areas near watercourses and wetlands or sensitive environmental areas will be restored as soon as practical; and
- ESC measures will be regularly inspected, including after each significant (>10 mm) rainfall event, and repaired where necessary to maintain functionality.

With the implementation of the mitigation measures described above, and the limited duration of the construction works, site preparation and earthwork activities are not anticipated to have long-term net effects on surface water quality conditions in aquatic features.

The removal and discharge of construction water may be required as a result of dewatering activities in holes or trenches related to foundations of transmission structures. The measures outlined above to avoid or minimize discharge of construction water on surface water quantity will also serve to avoid or minimize the potential adverse effects on surface water quality. As a result, dewatering activities are not anticipated to have long-term net effects on surface water quality in the receiving aquatic features.

7.7.5. Source Water Protection

During construction and maintenance activities, there is the possibility of contamination of surface water through spills or leaks from the release of oils and fuels from vehicles and equipment. Mitigation measures to reduce the risk of contamination of source water in the unlikely event that a spill or leak occurs. These measures include the following:

- Maintain an Emergency Response Plan and have readily accessible cleanup materials and equipment at all times during construction and maintenance activities;
- Remediate spills/leaks as soon as possible upon identification and notify the MECP Spills Action Centre, as required;
- Conduct refuelling in designated areas with appropriate protective measures and equipment available; and

- Locate refuelling areas outside of Source Water Protection (SWP) areas to the extent practical. If refuelling must occur within SWP areas, additional protective measures (emergency spill trays, etc.) may be employed as necessary.

The PSA does not cross any WHPAs or IPZs; therefore, construction and maintenance activities are not anticipated to impact WHPAs or IPZs. The PSA does however cross SGRAs (vulnerability score of 6) and HVAs (vulnerability scores ranging from 2 to 6). There are a number of Project-specific mitigation measures which will be implemented as a mechanism to reduce potential impacts. These measures include the following:

- Identify and protect SGRAs and HVAs during construction and maintenance activities, as required;
- Comply with relevant legislation and policies such as: *Clean Water Act*, Provincial Planning Statement, City of Ottawa OP, and RVCA/SNCA Source Water Protection Plans, where applicable;
- Consult with RVCA, SNCA, and the City of Ottawa during detailed design and construction planning on Project-specific mitigation measures.

As outlined in **Section 4.6.5**, both SWP areas that fall within the PSA have policies related to fuel handling and storage. Both SWP areas also identify the requirement for development of a Risk Management Plan if significant threats to source water resources are identified based on Project activities. Based on the scope of work for construction, operation and maintenance of the Project, significant threats to the protection of source water resources have not been identified. For example, handling and storage of fuel is anticipated to be limited to the amount needed for running equipment and bulk fuel storage tanks are not required. Project-specific mitigation measures and best management practices have been detailed above to further minimize the potential threat within SWP areas.

7.7.6. Groundwater Resources

During construction, the potential effects of the proposed Project on groundwater include:

- Changes in water quality due to disturbance of pre-existing soil contamination which may exist;
- Changes to existing groundwater quality or quantity due to excavation and construction dewatering; and
- Changes in groundwater flow regime due to the installation of foundations for transmission structures.

It is not expected that there would be any effects on groundwater during the maintenance and operation phase, due to a lack of subsurface disturbance once the transmission line is operational.

Changes in groundwater due to Project activities during construction could also affect the amount of groundwater discharged to nearby watercourses and natural environmental features (e.g., vegetation, fish habitat, wetlands, etc.).

Effects on groundwater due to dewatering would be ephemeral and have a zone of influence measured in the range of several tens of metres. This effect would be limited to the construction phase only. Where geotechnical conditions and engineering requirements allow, foundation types (such as helical piles) that minimize dewatering during construction will be used.

7.7.6.1. Groundwater Quality

Contaminated soil and groundwater containment and disposal measures would be implemented according to the pertinent regulations, as required.

The regional geology is dominated by shale and limestone that exists over much of the Ottawa region. Groundwater moves very slowly in shale bedrock and competent shale also acts as an aquitard (ENDM, 1991). The dominant aquifer in the Project area is found at the base of the overburden and generally consists of shale, limestone, dolostone, and siltstone (ENDM, 1991). The natural water quality is generally poor with taste and odour issues related to the shale bedrock. The overburden thickness varies and is generally thicker in the northern areas of the PSA/LSA (approximately 34 m deep) and becomes thinner in the southwest (approximately 14 m deep) (ENDM, 1991).

The Project will require lattice steel structures and composite, steel, or wood pole structures. Both types of structure will have augured footings. Given that the overburden thickness in the area is typically more than 15 m, it is unlikely that the piles will extend into bedrock. This type of foundation system will require excavation of soil and installation of annular seals. It is considered very unlikely that the installation of structure footings will impact water wells, even if wells are located relatively close to the structure foundations. Transmission line structure footings generally do not adversely affect the quality of water resources, as effects of construction are often shallow relative to deeper aquifers, temporary in duration, and often less intrusive than other construction methodologies (e.g., excavations for building foundations or driven pile footings).

No adverse effects are anticipated for changes in groundwater quality due to the construction of the proposed Project. If changes in groundwater quality were to occur, it is anticipated that groundwater quality would return to baseline conditions following the implementation of mitigation measures, such as containment and removal of contaminated soils.

7.7.6.2. Groundwater Quantity

The effects on groundwater quantity associated with construction of transmission structures are anticipated to be local to the hole or excavation. Foundation excavations would be backfilled in a timely manner. As such, it is predicted that there would be limited to no temporal effects on groundwater levels and quantity as a result of construction activities.

Construction is occurring predominantly within an existing transmission corridor. It is anticipated that water discharge would be to nearby agricultural lands, or within vegetated areas. It is anticipated that there would be some runoff from this discharge and some infiltration.

Transmission line structure footings generally do not adversely affect the quantity of water resources, as effects of construction are often shallow relative to deeper aquifers, temporary in duration, and often less intrusive than other construction methodologies (e.g., excavations for building foundations or driven pile footings). Subject to the completion of geotechnical studies and civil engineering designs, the Project team currently anticipates that the structure footings for the Project will be augured.

Though currently not anticipated, if detailed design suggests that construction dewatering of transmission structure foundation holes/excavations is required at a rate greater than 50,000 L/day, an EASR will be obtained from the MECP. The proposed Project will comply with applicable guidelines and legislation, including Provincial Water Quality Objectives, Ontario Drinking Water Standards, Objectives and Guidelines, and O. Reg. 153/04. Adequate dewatering and discharge plans would be developed prior to construction, and collected water would be contained and tested prior to disposal, if required.

It is anticipated that the municipal wells and local private water wells within the area will not be significantly affected as a result of dewatering activities associated with transmission line structure foundation holes or excavations. The zone of influence of such dewatering activities is very localized, and the majority of water wells exploit

aquifer(s) that are at a much greater depth than the proposed excavations (i.e., bedrock aquifers; **Section 4.6.4**). Where necessary, a hydrogeological assessment will be conducted to inform construction planning, permitting, and management.

The effects of dewatering activities during construction are expected to be temporary, and groundwater levels and flows are expected to return to pre-construction conditions following the construction period. The nature of the subsurface soils, the existence of a high-water table regime, and the small zone of influence to be created by construction dewatering is expected to result in a recovery to the pre-disturbance state in a matter of several days.

7.7.7. Natural Heritage Features

As mentioned previously in **Section 4.6.6**, the provincially regulated portion of the PSA was determined to contain woodlands, fish habitat, candidate significant wildlife habitat, and potential SAR habitat.

7.7.7.1. General Effects and Mitigation

Construction associated with the proposed Project may result in both temporary and limited permanent disturbance to natural heritage features. Permanent adverse effects include the potential removal of 0.05 ha (500 square metres) of incompatible vegetation to accommodate the proposed new double circuit 115 kV transmission line.

With exception to the 0.05 ha of incompatible vegetation removal requirements, it is anticipated that the long-term adverse effects to natural heritage features can generally be avoided or mitigated through structure placements and other mitigation measures; the locations for structures will be determined during the detailed design phase. Temporary adverse effects include those from work operations that physically or visually disrupt wildlife during active construction. Operation and maintenance activities may require vegetation removals or tree trimming to maintain access. Vegetation removals will be avoided during the migratory bird breeding season (April 5 – August 31), wherever feasible. Should any maintenance activities require vegetation removals during the migratory bird breeding season, nest sweeps will be conducted prior to removals. With the implementation of mitigation measures, no significant net effects on natural heritage features are anticipated during the maintenance and operation phase.

Construction activities would be restricted to designated work areas and protective barriers, such as fencing, would be erected to protect adjacent features from

construction related effects. For example, silt fencing and/or other sediment and erosion control measures would be installed as required to prevent the migration of sediment-laden water from the site. In addition, vegetation removal limits would be clearly demarcated. Prior to construction, a detailed construction plan would be developed and the RVCA and SNCA would be consulted for work in regulated areas.

Other measures that would be undertaken to reduce adverse effects resulting from the construction of the proposed Project include:

- Restricting access and minimizing travel/work areas to maximize retention of compatible vegetation;
- Implementing sediment and erosion controls;
- Selectively cutting and retaining compatible vegetation to promote regeneration;
- Disposing of non-salvageable limbs by chipping or removal to designated areas;
- Removal of isolated trees with the potential to support SAR bats will occur outside of the bat active season (i.e., April 1 through September 30), to the extent practical, following Ministry of the Environment, Conservation, and Parks (MECP) consultation and approval;
- Completing exit surveys following agency approved protocols in the event isolated trees with the potential to support SAR bats require removal during the bat active season. Removing isolated tree(s) where surveys confirm no habitat use, and completing removals between October 1 and March 31 in the event habitat use is confirmed following MECP consultation and approval;
- Using constructed access (mats, or geotextile and gravel), to avoid or minimize effects to soils (compaction, rutting etc.);
- Implementing the Clean Equipment Protocol for Industry (Halloran et. al, 2013) to reduce the spread of invasive species;
- Restoring compacted areas, as required;
- Retention of compatible vegetation to the extent practical; and
- Application of ESC as necessary.

Temporary construction access (e.g., access mats or geotextile and gravel) will be removed upon completion of construction. Temporary laydown areas will be installed during construction, and these areas will be restored following removal.

Most wildlife species that have the potential to occur within the Project work areas are habituated to human activities and are mobile. For the most part, sensitive resident

animals can relocate temporarily to nearby habitats through flight or via existing corridors (e.g., fencerows, watercourse riparian areas, etc.) to seek shelter as a mechanism to avoid noise and disturbance associated with construction activities and return after construction completion. Construction disturbance would be sufficiently local and transitory that minimal displacement of wildlife is anticipated. Therefore, the effect of the proposed Project on wildlife is anticipated to be minor.

Removal of vegetation has the potential to disturb nesting migratory birds. The *Migratory Birds Convention Act*, *1994* (MBCA) prohibits the disturbance, destruction or removal of a nest, egg or nest shelter of most migratory birds during the active season. In order to avoid contravention of the MBCA, vegetation removal will not be conducted during the migratory bird breeding season from April 5 to August 31 in nesting zone C1 as provided by ECCC (2018), where feasible. Bird nest sweeps will be conducted prior to any removals during nesting season according to approved protocols.

7.7.7.2. Fish and Aquatic Habitat

The proposed Project crosses two watercourses identified as having the potential to provide fish habitat. Although transmission structures are anticipated to be located in a manner to avoid impacts to fish and aquatic habitat, there is potential for fish and aquatic habitat to be affected short-term during the construction phase of the proposed Project through the removal of incompatible vegetation within riparian areas (i.e., tree height at maturity has potential to interfere with the safe and reliable operation of the line) and potential temporary watercourse crossings required to facilitate construction activities.

The removal of vegetation within riparian areas has the potential to affect fish habitat as it may reduce the amount of potential shade provided to fish and aquatic habitat, thereby influencing potential changes in water temperature, albeit over a small reach. Minimal tree removals are anticipated due to the fact that vegetation in the existing transmission corridor is regularly maintained. Removal of trees within riparian areas also has the potential to affect fish and aquatic habitat cover as it would represent a reduction of potential overhanging vegetation. In instances where trees within riparian areas require removal, their root structures will remain intact (i.e., grubbing will not be conducted within riparian areas) as a mechanism to maintain their current soil stabilization characteristics. With respect to temporary watercourse crossings, potential effects on fish and aquatic habitat include alterations to riparian areas, increased

turbidity and release of deleterious substances. No in-water work is currently anticipated to be required. In the event in-water works are required to support the construction of potential watercourse crossings, necessary permits and approvals from MECP, Conservation Authorities, and DFO would be obtained before the commencement of work.

Other potential disturbances to fish and aquatic habitat resulting from construction activities near water would be minimized through the development of an ESC plan, which would include mitigation measures such as crossings during low flow conditions, retaining stream bank vegetation (where practical), and storing materials away from water features. In addition, no refuelling of vehicles and/or equipment would be permitted within 30 m of a watercourse to prevent potential spills (e.g., fuel, oil, lubricant) from entering aquatic features.

As previously stated, although the transmission structures will be located to avoid impacts to fish and aquatic habitat to the extent feasible, the potential short-term effects on fish and aquatic habitat can be mitigated through the application of measures included in **Section 7.7.7.1** related to vegetation.

7.7.7.3. Woodlands

Minimal impacts to woodlands are anticipated since Project works are planned within an existing maintained transmission corridor.

7.7.7.4. Species at Risk

As noted in **Section 4.6.6.10,** species designated as either Endangered or Threatened under the *ESA* and *SARA* are provided species and habitat protection. The PSA was determined to provide potential habitat for SAR bats and Gray Fox.

Areas within the PSA with the potential to support SAR bats will be assessed prior to construction for presence of habitat trees (snags, cavities) to inform potential habitat retention, where possible. Contractors will be educated on the potential for bats/bat habitat which may be encountered within the general work areas. In the event potential SAR bat habitat (including buildings and trees with a 10 cm or greater diameter at breast height) requires removal in support of the Project, bat visual exit and/or acoustic surveys will be completed during the month of June in accordance with agency approved protocols to determine SAR bat use (or lack thereof). Construction of bat

nesting boxes in certain areas may be considered to offset the loss of bat roosting habitat, where practical.

The potential for Gray Fox to occur in the PSA is considered low to moderate. It is expected that Gray Fox would avoid the active construction area and adverse effects to Gray Fox are not anticipated during Project construction or operations.

Construction personnel will be aware of the potential presence of SAR and be able to identify SAR with the potential to occur within the general work areas. Should SAR be encountered during construction activities, activities will be stopped until it has been determined that harm will not occur. The required activities will be assessed to determine whether the work/schedule can be modified, or mitigation measures employed, to avoid potential effects on SAR and their habitat.

If avoidance of SAR and/or SAR habitat is not possible, MECP will be consulted in advance of construction to discuss detailed mitigation measures and or/assess the need for permitting/approvals under the current provincial SAR legislation at that time.

7.7.7.5. Wildlife and Significant Wildlife Habitat

Based on the results of the background review, ELC mapping, and results of the 2025 field investigations, the following candidate SWH types were identified within the provincially regulated portion of the PSA:

- Raptor Wintering Area;
- Bat Maternity Colonies;
- Turtle Wintering Areas;
- Reptile Hibernacula; and
- Special Concern and Rare Wildlife Species.

During Project construction activities, the following would be taken into consideration as a mechanism to avoid and/or mitigate impacts to SWH:

- Boundaries of important wildlife habitats will be identified and the ROW boundaries flagged prior to clearing;
- Retention of snags and cavity trees with potential to support bats;
- Retention of super canopy trees for nesting, to the extent practical;
- Trees containing stick nests and areas where active animal dens or burrows are encountered will be left undisturbed until unoccupied, as determined by a qualified person;

- Stick nests on transmission structures will be left undisturbed if eggs or young are in the nest until the young have fledged unless there is an immediate safety concern addressed. If no eggs or young are observed, the nest will be removed;
- Tree/vegetation clearing will be avoided during the breeding bird and bat active period, where practical;
- Where vegetation clearing is required, some of the cleared vegetative material may be used to create brush piles along the ROW edges to promote wildlife habitat were deemed appropriate;
- General avoidance of wildlife habitats, where practical;
- Promotion of wildlife habitat through vegetation control;
- Retention of natural vegetation, where possible;
- Use of native plant species where restoration seeding or planting is conducted; and
- Construction personnel will be educated on the potential for wildlife which may be encountered within the general work areas.

7.7.7.6. Invasive Species

There is potential for the proposed Project to inadvertently facilitate the spread of invasive species that may occur within or adjacent to work areas during the construction phase. Construction staff will be educated on the identification of invasive species and the importance of avoiding their spread to new areas. Additional measures that would be undertaken to reduce the spread of invasive species include:

- Utilizing native plant species during construction restoration;
- Taking care to avoid spreading invasive species (especially invasive plant species) that occur in or adjacent to work areas and educating crews on the importance of preventing the spread of invasive species;
- Abiding by the *Invasive Species Act* regulations;
- Proper handling, containment and disposal of invasive plant material, where required;
- Inspecting and cleaning equipment and vehicles as necessary to reduce potential for spreading invasive species propagules; and
- Tracking special treatment areas (e.g., large established populations of invasive species within the ROW) for consideration when planning future maintenance works.

7.8. Indigenous Culture, Values and Land Use

Hydro One is committed to developing and maintaining relationships of mutual respect with Indigenous communities and recognizes that Indigenous communities and their

lands are unique in Canada, with distinct legal, historical and cultural significance. Hydro One is committed to continue to engage with the Indigenous communities to provide regular Project updates and actively identify and avoid geographically defined areas which support current or past traditional use for the harvesting of wildlife or fish, the harvesting of traditional plants, or use as sites of spiritual or cultural significance.

No specific valued components or concerns were identified by Indigenous communities during the Class EA process.

Hydro One and its consultants have been working closely with interested communities and have included representatives from interested communities in archaeological and environmental fieldwork. Indigenous communities will be provided opportunities to review the findings of future archaeological field surveys and archaeological assessment reports. To date, AOO have been involved in natural environment field work, and representatives attended several fieldwork days along with Project staff members. In addition, AOPFN provided a liaison to participate in the Stage 1 AA site visit. Indigenous communities will be invited to participate in future field studies including the Stage 2 AA.

Hydro One will continue to seek to identify community concerns and build appropriate actions into proposed Project plans to address expressed concerns throughout the lifecycle of the asset.

7.9. Recreational Resources

There is potential that some recreational resources (e.g., trails within and around the existing transmission corridor) may be temporarily affected during the construction and maintenance phase of the proposed Project due to the presence of construction laydown areas within the corridor, as well as construction equipment and presence of construction crew members and traffic. Impacts during the operations phase are not anticipated.

While there may be some temporary impacts to the enjoyment of recreational resources in the PSA, such impacts are expected to be short-term in nature. Advanced notice will be provided to nearby residences, landowners, and commercial operations, outlining the location of entry/exit points for the construction site as well as the schedule for construction work or construction related traffic in those areas. Clear and temporary road signage will also be created and installed to reflect this information. Disturbance to

existing recreational resources will be avoided to the extent practical. This may include timing work to avoid seasons of heavier use. Safety precautions will be utilized throughout the Project area to protect the public such as anti-climbing devices and appropriate signage where necessary.

7.10. Visual and Aesthetic Resources

The proposed Project is located within an existing transmission corridor. Existing vertical elements include traffic and light standards and existing transmission lines. Location of transmission structures is one of the largest factors influencing the visual effects to specific receptors. Since the Project will utilize an existing transmission corridor, no significant impacts to visual and aesthetic resources are anticipated.

Except for the area between Hawthorne TS and immediately east of Highway 417, transmission structures will be shorter than existing structures, which will significantly reduce the net visual change of the proposed Project.

7.11. Summary of Potential Environmental Effects, Mitigation Measures, and Net Effects

Table 7-1 provides a summary of potential effects, the associated mitigation, and the net effects identified for the proposed Project, during the construction and operation and maintenance phases.

Table 7-1: Summary of Potential Effects, Mitigation Measures, and Net Effects

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
Agricultural Resources: Crop Loss	**Construction:** Potential for construction activities to result in crop loss.	The following mitigation is recommended to address these potential effects: • Contact will be maintained with landowners and stakeholders regarding work schedules and other items of interest (e.g., access roads, minimizing disturbances to existing and planned farm operations, etc.); • Where practical, some construction and maintenance activities will be scheduled to avoid the growing season or sensitive times of year (e.g., extreme wet periods), although it is recognized that this will not be possible in all circumstances; • Temporary gravel access roads, work pads around each structure location, and stringing pads, will reduce soil compaction and allow for all-weather access without causing rutting or topsoil/subsoil mixing; • Temporary access roads and work pads will be built using gravel overlying heavy duty geotextile to facilitate removal when construction is complete to allow for re-cultivation of the area; • Temporary access roads, pads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment; • Work will be limited to the planned access roads, work pads, and puller/tensioner pads. If a later expansion to these areas is required, it will be discussed with the relevant landowner(s) in advance; • New structures will be located as close as practical to the existing transmission infrastructure to minimize the overall area impacting agricultural operations; • Existing farm lanes and other existing access roads will be used whenever practical. In the event farm lanes are absent, access will be focused within the ROW or along field edges, to the extent practical; and • Restoration measures, as informed by discussions with landowners (e.g., alleviate soil compaction, remove excess aggregate, etc.) on areas affected by construction, may be undertaken following the completion of construction and removal of temporary construction access, as necessary.	**Net effects are predicted to be not significant.** Agriculture is a compatible use within overhead transmission line ROWs. Some portions of the Project footprint will require the loss of crops to accommodate construction as well as the permanent placement of Project infrastructure (i.e., structures). With the implementation of mitigation measures, potential net effects are anticipated to be short-term, isolated to the construction phase, irreversible, and low in magnitude. Crop loss and lands out of production temporarily as a result of the proposed Project (e.g., during construction) will be compensated.
Agricultural Resources: Soil Compaction	**Construction:** Potential to compact soil horizons through the use of heavy machinery over agricultural lands. **Operation:** Potential compaction to soil caused by the movement of maintenance vehicles over agricultural lands.	In addition to the mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Equipment with low bearing capacity will be used, where practical; • Access will be located along existing farm lanes or field edges, where practical; • Access roads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment; • Work will be limited to the planned access roads, work pads, and puller/tensioner pads. If a later expansion to these areas is required, it will be discussed with the relevant landowner(s) in advance; • Temporary access roads and work pads will be built using gravel overlying heavy duty geotextile to facilitate removal when construction is complete to allow for re-cultivation of the area; and • Restoration measures, as informed by discussions with landowners, to cultivate or otherwise alleviate soil compaction on areas affected by construction, may be undertaken following the completion of construction and removal of temporary construction access, as necessary.	**Net effects are predicted to be not significant.** Agriculture is a compatible use within overhead transmission line ROWs. Some agricultural fields will have new transmission structures. The preferred route maximizes the use of the existing transmission corridor, resulting in the least amount of net new transmission structures within agricultural fields. With the implementation of mitigation measures, potential net effects are anticipated to be short-term, occasional, reversible, and low in magnitude.
Agricultural Resources: Soil Mixing	**Construction:** Potential for excavation activities to cause mixing of soil horizons.	In addition to the mitigation outlined above, the following mitigation is recommended to address these potential effects: • Where cost, geotechnical conditions and engineering requirements allow, foundation types (such as helical piles or auguring for pole structures) that minimize surface disturbance and do not require soil excavation or soil stripping of the foundation site will be used;	**No net effects are predicted with the implementation of mitigation measures.**

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
		• Stripping or excavation of soils will be minimized to the extent practical; • Where soil stripping is required, topsoil and subsoils will be removed and stockpiled separately; • Depths of soil being removed will be carefully monitored and minimized during stripping activities; • Volume of topsoil and subsoil salvaged for replacement or re-use on site will be maximized, where practical; • Soils will be stripped under generally dry conditions (not saturated), such that rutting, soil mixing, or other undesired ground disturbance is minimized to the extent practical; • Vegetation, stone piles, fencing, and deleterious materials will be removed prior to stripping; • For backfilling operations, topsoil and subsoil will be replaced in reverse order of excavation to minimize the potential for additional mixing and maximizing future growing potential; • Soil cover on exposed areas within agricultural areas will be discussed with the landowner for the most appropriate solution; • Equipment and vehicle inspections and cleaning will be conducted using a risk-based approach, whereby vehicles and equipment that have come in contact with soils will be inspected and cleaned of dirt/debris/seeds; and, • Cleaning will occur in a manner that ensures that runoff is contained, and waste materials can be collected.	
Agricultural Resources: Disturbance to Farm Operations	**Construction & Maintenance:** Potential for construction and ongoing maintenance activities to impact farm operations including planting and harvesting schedules, spraying, tilling activities, etc. **Operation:** Impediments to the maneuverability of agricultural equipment.	In addition to the mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Where practical, the location of structures will be placed to minimize impacts to maneuverability of agricultural equipment (e.g., along lot lines or field boundaries, or in-line with existing transmission structures); • Contact will be maintained with affected landowners regarding work schedules and other items of interest (e.g., access roads, minimizing disturbances to farm operations, etc.); • Access roads, work pads, and stringing pads will be constructed to a minimum length and width required to accommodate the safe movement of construction equipment; • Work will be limited to the planned access roads, work pads, and puller/tensioner pads. If a later expansion to these areas is required, it will be discussed with the relevant landowner(s) in advance; • To the extent practical, some construction and maintenance activities will be scheduled to avoid sensitive times of the year for agricultural operations, although it is recognized that this will not be feasible in all circumstances; and • Constructed access roads will be smooth and tapered to allow for vehicular, pedestrian, and equipment crossings, where applicable.	**Net effects are predicted to be not significant.** Agriculture is a compatible use within overhead transmission line ROWs. Some agricultural fields will have new transmission structures (i.e., structure footings). With the implementation of mitigation measures, net effects during construction are anticipated to be short-term, isolated, reversible, and low in magnitude. With the implementation of mitigation measures, net effects during operation and maintenance of the transmission line are anticipated to be long-term, periodic, reversible, and low in magnitude.
Agricultural Resources: Vegetation Removal	**Construction & Maintenance:** Construction may require the removal of vegetation for the construction of new structures. Ongoing maintenance of the transmission ROW may also require removal of incompatible vegetation.	In addition to the mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Vegetation that will not affect construction or line clearances will be retained, where possible; • Field crews will be informed if working in organic or IP croplands; and • Mitigation strategies will be discussed with landowners prior to construction and field crews will be informed of the required mitigation and monitored to ensure these strategies are properly implemented.	**Net effects are predicted to be not significant.** Due to the work being located within an existing transmission corridor, vegetation removal will be limited. With the implementation of mitigation measures, net effects due to vegetation removal are anticipated to be medium-term, occasional, reversible, and low in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
Agricultural Resources: Damage to Field Tiles	**Construction & Maintenance:** Potential for equipment to damage or crush existing agricultural tile drains.	In addition to the mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Landowners will be consulted to determine existing field tile locations in support of avoidance/protection measures; • Tile drains will be avoided and/or protected (e.g., structure locations, temporary construction access), to the extent practical; • Access roads, work pads, and stringing pads will be contained to a minimum length and width required to accommodate the safe movement of construction equipment; • Where temporary access roads and work pads are built in tiled agricultural areas, gravel overlying heavy duty geotextile will be utilized to protect tile drains, where practical; Equipment with low bearing capacity will be used to minimize potential damage to tile drains, where practical; and • Where practical, some construction and maintenance activities will be scheduled to avoid sensitive times of the year (e.g., extreme wet periods), although it is recognized that this may not be feasible in all circumstances.	**Net effects are predicted to be not significant.** If damage to tile drains occurs as a result of construction activities and/or maintenance activities, the tile will be repaired by a licensed tile drainage contractor in consultation with affected landowner. With the implementation of mitigation measures, net effects are anticipated to be short-term, rare, reversible, and negligible in magnitude.
Forestry Resources	No forestry operations have been identified within the PSA; therefore, the Project is not anticipated to have adverse effects on forestry resources.	N/A	N/A
Archaeological Resources	**Detailed Design and Construction:** Disturbance or destruction of archaeological resources.	The following mitigation is recommended to address these potential effects: • Avoid and protect an archaeological site as a preferred alternative; • Archaeological assessment to be carried out by a licensed archaeologist as early as possible during detailed design and prior to any ground disturbance activities; • All associated archaeological assessment reports shall be entered into the Ontario Public Register of Archaeological Reports. If timelines allow, an expedited review request will be submitted and reports entered into the Ontario Public Register of Archaeological Reports prior to ground disturbing activities; and • Hydro One will follow the recommendations of the archaeological assessments. Discovery of undocumented archaeological resources and/or human remains will follow the provisions of the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act.*	**Net effects are predicted to be not significant.** Additional archaeological investigations will be completed prior to ground disturbing activities, as required.
Built Heritage Resources and Cultural Heritage Landscapes	No built heritage resources or cultural landscapes are present within the provincially regulated portion of the PSA; therefore, the Project is not anticipated to have adverse effects on cultural heritage resources.	N/A	N/A
Land Use and Communities: Business Operations	**Construction:** Potential for activities to disrupt	The following mitigation is recommended to address these potential effects: • Contact will be maintained with business owners with the potential to be impacted by construction regarding work schedule and other items of interest.	**No net effects are predicted with the implementation of mitigation measures.**

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
	commercial or industrial operations.	• Access to businesses will be maintained at all times during construction to the extent feasible. If existing access cannot be maintained, arrangements will be made for alternate access, including public signage as required. • Construction activities and equipment will be managed to avoid damage and disturbance to adjacent properties, structures and operations. • Where seasonal businesses are identified, efforts will be made to avoid disruption during peak/busy seasons, to the extent practical.	
Land Use and Communities: Existing and Future Land Use Designations and Potential Future Development	**Operation:** Incompatibility with future development.	The following mitigation is recommended to address these potential effects: • Throughout the province, development (both residential and commercial/industrial) occurs around existing transmission line corridors and stations. Uses deemed to be compatible with overhead transmission lines are often approved within transmission line ROWs. Hydro One has existing departments and processes to review proposals for developments that are planned adjacent to or within transmission line ROWs and facilitate compatible uses of these corridors. • Typically, there are no restrictions placed on development or new construction outside of the transmission line ROW itself. • Where and when future development projects or initiatives are proposed to occur along or within the ROW for the new transmission line, Hydro One will apply its existing processes to review and facilitate these future developments, including potential compatible uses within the transmission line ROW. • Hydro One will work with the City to consider potential means of accommodating potential future development during design of the transmission line, within the property fabric traversed by the line.	**Net effects are predicted to be not significant.** While there will be restrictions to future development within 2 m of the transmission line ROW, the transmission line will be constructed within an existing transmission corridor and will not impede the existing or future development of adjacent lands. With the implementation of mitigation measures, net effects to existing and future land use designations and potential future development are anticipated to be long-term, continuous in duration, reversible, and negligible in magnitude.
Land Use and Communities: Local Roads and Traffic	**Construction:** Potential for increased traffic, including heavy equipment, on local and regional roads. In addition, stringing of conductors across roadways, including provincial Highway 417, may require temporary road closures and detours.	The following mitigation is recommended to address these potential effects: • Obtain required permits from the MTO and obtain approval for any necessary rolling lane closures prior to construction activities within and adjacent to the Highway 417 right-of-way; • Obtain required permits from the City of Ottawa for any necessary work within City road rights-of-way or when moving oversized loads (e.g., temporary construction related encroachment, entrance permit, over dimensional vehicle permit); • Adhere to seasonal load restrictions; • Where required, a Traffic Control Plan will be developed and shared with the City and MTO, as necessary; • Construction haul routes and schedules will be shared with the City of Ottawa in advance of construction, as necessary; • Construction traffic will access the construction area from the existing road network at specified construction access/egress locations; • Common parking areas will be established for construction crews; • To the extent practical, in an effort to avoid road closures and other disruptions during stringing, conductor stringing will utilize rider poles, boom-tipped riders, or other protective measures, to the extent practical; • If temporary road or highway closures (e.g., rolling closures) are required during stringing or other construction activities, the Hydro One will coordinate closely with the appropriate road authority (i.e., MTO, City of Ottawa) to provide proper notice, required signage, and traffic controls. The duration of any temporary closures will be minimized to the extent practical; • Where construction work is planned to directly affect local traffic (e.g., temporary road or lane closures), local advertisements (e.g., radio, newspaper, etc.) will be issued and road signage will be	**Net effects are predicted to be not significant.** With the implementation of mitigation measures the net effects are anticipated to be short-term in duration, isolated to construction, reversible, and low in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
		erected to provide notification / pre-construction information to area residents on timelines and potential detours, if required; and • Traffic control officers or flag persons will be assigned to assist with construction entry/exit, as necessary.	
Land Use and Communities: Mud and Construction Debris	**Construction & Maintenance:** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone.	The following mitigation is recommended to address these potential effects: • Roads will be cleaned/scraped to remove mud on an as needed basis; • Mud mats will be installed (on an as need basis) as a mechanism to reduce the transport of mud; • Vehicles and equipment will be regularly inspected and cleaned as necessary; construction sites will be kept generally tidy at the extent practical and waste bins will be available wherever solid wastes are generated; • Waste materials will be collected and transported to a licensed or approved waste management facility on a regular basis; and • General clean site policies will be implemented requiring pick-up and disposal of refuse and construction waste on a regular basis.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, the net effects are anticipated to be immediate in duration, isolated to construction, reversible, and low in magnitude.
Land Use and Communities: Electric and Magnetic Fields (EMF)	**Operation:** Potential exposure to increased EMF once the transmission line is energized.	The following mitigation is recommended to address these potential effects: • EMF levels associated with the proposed Project are anticipated to remain significantly lower than the general public exposure limits; and • The proposed Project will be designed and operated in accordance with appropriate regulatory requirements.	**No net effects are predicted with the implementation of mitigation measures.** Health Canada does not consider that any precautionary measures are needed regarding daily exposures to EMFs at extremely low frequencies. There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors.
Land Use and Communities: Noise & Vibration	**Construction & Maintenance:** Potential disturbance as a result of noise. **Operation:** Station upgrades at Orléans TS include a new 230 kV autotransformer.	The following mitigation is recommended to address these potential effects: • Construction will be completed in accordance with local noise control by-laws (City of Ottawa By-law 2017-255), or applicable exemptions; • Where geotechnical conditions and engineering requirements allow, foundation types (e.g., holes for pole structures) that minimize vibrations during construction will be used; • Equipment and machinery used on site will be maintained in good working condition; • Use of compression hardware instead of implosive connectors for splicing conductor to limit noise and vibration; and • An Environmental Activity Sector Registration (EASR) will be obtained to reflect a change in noise-emitting equipment at Orléans TS.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects from Project noise and vibration during construction are anticipated to be short-term, isolated to the construction phase, reversible, and low in magnitude. With the implementation of mitigation measures, net effects from Project noise during maintenance of the transmission line are anticipated to be immediate in duration, rare in frequency, reversible, and negligible in magnitude. With the implementation of mitigation measures, net effects from Project noise during operation of the Orléans TS are anticipated to be long-term in duration, continuous in frequency, reversible, and negligible in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
Mineral and Petroleum Resources	No areas have been identified within the PSA that are used for the extraction of aggregate. Similarly, no active petroleum wells have been identified within the PSA. Therefore, the Project is not anticipated to have adverse effects on mineral and petroleum resources.	N/A	N/A
Natural Environment Resources - Physical Environment: Spills	**Construction & Maintenance:** The use of heavy machinery during construction and ongoing maintenance has the potential to result in spills.	The following mitigation is recommended to address these potential effects: • Equipment will be inspected regularly during construction to ensure it is clean and free of leaks; • Areas impacted by a spill will be secured, and unauthorized personnel will be kept out of the affected area until further assessment and/or clean-up is conducted; • Clean-up and the disposal of contaminated materials will be managed in accordance with provincial regulations and guidelines; • Fuels, chemicals, lubricants, or other deleterious substances will be stored on level ground in properly contained storage areas; • Only approved aboveground petroleum storage tanks will be used during the construction phase of the Project and will be stored in designated fuelling areas and with additional temporary containment measures outside of designated source water protection areas; and • The RVCA, SNCA, and/or the City of Ottawa, will be consulted to undertake the proper action for managing the potential threats to source water protection areas, as needed.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects from spills are anticipated to be immediate to short-term in duration, rare, reversible, and low to medium in magnitude.
Natural Environment Resources - Physical Environment: Waste Generation	**Construction:** Construction activities will generate waste including non-hazardous and potentially hazardous waste requiring proper containment and disposal.	The following mitigation is recommended to address these potential effects: • Hazardous waste (solid and liquid) should be transported by MECP license waste haulers to MECP registered disposal sites; • Temporary waste on-site should be placed in secured containers in designated sites away from sensitive areas and removed from the site on an ongoing basis; • All water from concrete chute washing will be contained in leak-proof containers or in an approved settling pond off site; and • Waste produced will be minimized, segregated and recycled where possible, and all testing, handling, storage, transport and disposal of waste will be completed in accordance with all applicable legislation.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects from waste generation are anticipated to be short-term in duration, periodic in frequency, reversible, and negligible to low in magnitude.
Natural Environment Resources – Atmospheric Environment: Climate Change	**Construction & Maintenance:** Emissions will be generated from vehicles and equipment which will contribute to greenhouse gases responsible for climate change.	The following mitigation is recommended to address these potential effects: • Equipment will be properly serviced and maintained; • Idling of construction vehicles and equipment will be kept to a minimum and GPS or other navigation tools will be used in vehicles to optimize routing; and • The transmission line will be designed to adequately withstand the effects of climate change.	**No net effects are predicted.** Maintenance and other operational tasks requiring the use of combustion engine vehicles and equipment will become more efficient due to the need to maintain one transmission corridor instead of two, resulting in decreased fossil fuel emissions over the long term.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
	Operation: The transmission line may be susceptible to effects of climate change such as increased frequency and severity of storms, including high winds, lightning, heavy precipitation, etc.		
Natural Environment Resources - Atmospheric Environment: Air Quality	**Construction & Maintenance:** Potential for fugitive dust and impacts to air quality from vehicle emissions.	In addition to the applicable mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Vehicles will not exceed posted speed limits; • Minimize and stabilize vehicular traffic and exposed soils in high traffic areas with suitable cover material; • Avoid excavation and other construction activities that have the potential to release airborne particulates during excessively windy periods, to the extent practical; • If excavation or other construction activities with a potential to release airborne particulates must occur during windy conditions, dust controls will be utilized; • Cover or otherwise contain loose construction materials with the potential to release airborne particulates during transport, installation or removal to the extent practical; • Disturbed areas will be restored as soon as practical to minimize duration of soil exposure; and • Effective dust suppression techniques, such as on-site watering, will be implemented as necessary. Non-chloride dust suppressants will be used.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects to air quality from the Project are anticipated to be immediate in duration, periodic, reversible, and negligible to low in magnitude.
Natural Environment Resources – Atmospheric Environment: Noise and Vibration	**Construction & Maintenance:** Potential disturbance as a result of noise, including potential use of implosive splicing and their associated increased vibrations levels. Indirect noise disturbance effects on wildlife during construction can include temporary declines in habitat occupancy, as well as changes to mobility and feeding habitat patterns. **Operation:** Station upgrades at Orléans TS include a new 230 kV autotransformer, which will likely have greater noise	Refer to the mitigation recommended for Noise and Vibration under Land Use and Communities above.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects from Project noise and vibration during construction are anticipated to be short-term, isolated to construction, reversible, and low in magnitude. With the implementation of mitigation measures, net effects from Project noise and vibration during maintenance of the transmission line are anticipated to be immediate in duration, rare in frequency, reversible, and negligible in magnitude. With the implementation of mitigation measures, net effects from Project noise during operation of the Orléans TS are anticipated to be long-term in duration, continuous in frequency, reversible, and negligible in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
	emissions than the existing transformer.		
Natural Environment Resources - Surface Water Resources: Vegetation Removals and Soil Rutting	**Construction:** Potential for vehicles and equipment to create rutting in soils, and ponding or channelization of surface water leading to erosion of soils. Vegetation removals have the potential for increases in both overland flow and water temperature, as well as mobilization and transport of organic debris and sediment into nearby watercourses.	The following mitigation is recommended to address these potential effects: • Where practical, activities with potential to cause rutting, ponding/channelization or erosion will be planned during stable and dry ground conditions; • Existing watercourse crossings and constructed access roads will be utilized to the extent practical; • The use of ESC measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be utilized, where necessary; • Where required, temporary crossing structures will be installed for construction access at watercourses and other low-lying areas and will be removed upon completion of construction; • The use of constructed access (e.g., mats or geotextile/crushed stone) roads will be utilized and will be monitored to ensure there is no surface ponding to minimize rutting and pooling of water; • Vegetation removals will be minimized to the extent practical. Compatible vegetation will be retained within riparian areas adjacent to watercourses; • Machine clearing and grubbing will be restricted near sensitive environmental areas; hand clearing will be required within watercourse banks/riparian areas; • Replant with compatible vegetation (e.g., shrubs and native seed mix) as required; • Constructed access (e.g., mats or geotextile/crushed stone) roads will be utilized where possible and will be monitored to ensure there is no surface ponding to minimize rutting and pooling of water; • Equalizing culverts will be installed under constructed access routes where necessary to prevent water pooling and allow for overland flow • Where erosion is a concern, exposed soils in previously vegetated areas will be re-vegetated as practical or have other erosion or sedimentation measures applied as necessary; • Where applicable and possible, vegetative buffers will be maintained to protect sensitive receptors; • Construction access and laydown areas will be restored following completion of construction; • Work will be staged to minimize the extent of exposed soils (i.e., bare soils without vegetative cover or ESC such as coir blankets) at any given time; • Cleared vegetation will be relocated to designated areas away from water features; • Topsoil will be stockpiled in designated areas away from water features and will utilize containment measures such as ESC as appropriate; • Disturbed areas will be stabilized and restored as soon as practical; • Equipment operation adjacent to watercourses and wetlands will be minimized, where possible; • Works adjacent or around water feature banks will be conducted during appropriate conditions and times of the year (e.g., dry or frozen conditions), to the extent practical; • Vegetation buffers along water feature banks will be maintained to the extent practical, and restored; • Vegetation removals will be minimized to the extent practical. Compatible vegetation will be retained within riparian areas adjacent to watercourses; • The limits of vegetation clearing will be clearly marked; • Tree limbs will be disposed of by chipping or removal to designated areas - chipping is not permitted in or near watercourses; • Woody material will not be burned; • Stumps will be cut flush to ground where possible; • Machine clearing and grubbing will be restricted near sensitive environmental areas; hand clearing will be required within watercourse banks/riparian areas;	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be short-term, occasional, reversible, and low to medium in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
		• Replant with compatible vegetation (e.g., shrubs and native seed mix) as required; • Chips will not be spread on the right-of-way will not exceed 15 cm in depth to allow for vegetation re-growth; • Lop and scatter will be used in sensitive areas; • Salvable wood will be removed in sensitive areas by winching or by hand where possible; • Skidding on steep slopes or through watercourses and wetlands will not be permitted; • Brush will not be piled within 15 m of any watercourse; and • RVCA and SNCA will be consulted where appropriate regarding ESC measures within regulated areas during detailed design.	
Natural Environment Resources - Surface Water Resources: Access Roads	**Construction:** Potential impacts to surface water flows resulting from access road construction.	The following mitigation is recommended to address these potential effects: • Access roads, work pads around each structure location, and stringing pads will be removed following construction on agricultural land; • On non-agricultural land, access roads may be left in place depending on the nature and environmental sensitivity of the area, landowner agreement, and need for maintenance and access for emergency repairs in the future; • Existing, natural drainage patterns and flows will be identified and maintained to the extent practical; • Equalization culverts or similar methods may be used in construction of access roads. If surface water accretion issues are identified during construction, remedial measures (e.g., retroactive installation of equalization culverts within temporary access roads) will be undertaken promptly; • Existing watercourse crossings and constructed access roads will be utilized to the extent practical; • Construction and access planning will take into account tile drains to ensure continued function of drainage tiles to the extent practical. Discussions with landowners will be held where further information is needed to avoid adverse effects; • ESC measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be used where necessary; • Watercourse crossings will not be permitted unless there is a formal crossing structure in place (e.g., bridge, culvert, or constructed ford); • Where required, crossing structures (e.g., bridges, culverts, or constructed fords) will be installed for construction access at watercourse and other low-lying areas and will be removed upon completion of construction – these may be removed following construction or left in place to facilitate future maintenance and access if emergency repairs are required; • Crossing structures will be designed to accommodate the appropriate flood levels for the length of time they are planned to be in use; • Permits will be obtained under S. 28 of the Conservation Authorities Act prior to installing any crossing structures; • Specific ESC measures for each crossing will be included in permit applications; and • A Request for Review will be submitted to the DFO if the work does not meet conditions in a code of practice.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be immediate to short-term in duration, isolated to construction, reversible, and low in magnitude.
Natural Environment Resources – Surface Water Resources: Erosion and Sedimentation	**Construction:** Potential for erosion, sedimentation and soil loss during site preparation and construction.	In addition to the applicable mitigation outlined in this table, the following additional mitigation is recommended to address these potential effects: • An ESC plan will be developed before construction and ESC measures will be identified and implemented as required. Measures such as erosion blankets/coir mats, silt socks, etc., or similar, are expected to form part of the ESC plan, where appropriate; • Areas with high erosion potential will be identified and avoided, to the extent practical;	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be immediate to short-term in duration, rare, reversible, and low in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
		• Construction activities near sensitive features or areas may be suspended during extreme wet weather events, and crews will review and consider weather forecasts in their planning of such work; • ESC installations will only be removed after disturbed areas are restored, accumulated sediment has been disposed, and construction activities in the vicinity are completed; • In an effort to reduce potential erosion, mechanical or vegetation erosion control measures will be employed, such as buffer strips, erosion control blankets and sedimentation fences, as required; • Equipment operation on slopes adjacent to watercourses will be minimized to the extent practical; • Disturbed areas near watercourses and wetlands or sensitive environmental areas will be restored as soon as practical; and • ESC measures will be regularly inspected (including after each significant rainfall event >10 mm) and repaired where necessary to maintain functionality.	
Natural Environment Resources - Source Water Protection: Surface Water Quality	**Construction and Maintenance:** Potential for impacts to surface water quality via sediment introduction.	Refer to the mitigation recommended Erosion and Sedimentation above.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be immediate to short-term in duration, rare, reversible, and low in magnitude.
Natural Environment Resources - Source Water Protection: Source Water Protection	**Construction:** Potential for impacts to source water resources during construction activities.	In addition to the applicable mitigation outlined above, the following mitigation is recommended to address these potential effects: • Identify and protect Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers during construction and maintenance activities, as required; • Comply with relevant legislation and policies such as: Clean Water Act, Provincial Policy Statement, City of Ottawa OP, and RVCA/SNCA Source Water Protection Plans, where applicable; • Fuels, chemicals, lubricants, or other deleterious substances will be stored on level ground in properly contained storage areas; • Only approved aboveground petroleum storage tanks will be used during the construction phase of the Project and will be stored in designated fuelling areas and with additional temporary containment measures outside of designated source water protection areas; and • The RVCA, SNCA, and/or the City of Ottawa, will be consulted to undertake the proper action for managing the potential threats to source water protection areas, as needed.	**Net effects are predicted to be not significant.** No WHPAs or IPZs are located within the PSA, however, SGRAs and HVAs (with vulnerability scores ranging from 2 to 6) have been identified within the PSA. With the implementation of mitigation measures, net effects are anticipated to be immediate to short-term in duration, rare, reversible, and low in magnitude.
Natural Environment Resources - Groundwater Resources: Groundwater Quality	**Construction:** Disturbance of contaminated soil has the potential to contribute to groundwater contamination.	Refer to the mitigation recommended for Spills and Waste Management under Physical Environment, Vegetation Removals and Soil Rutting under Surface Water Resources, and Soil Mixing under Agricultural Resources.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be immediate to short-term in duration, rare, reversible, and low in magnitude.
Natural Environment Resources - Groundwater Resources: Groundwater Quantity	**Construction:** Disturbance and compaction to soil has the potential to inhibit infiltration.	Refer to mitigation recommended for Soil Compaction under Agricultural Resources.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be short-term, occasional, reversible, and low in magnitude.
Natural Environment Resources - Groundwater	**Construction:** Dewatering activities/removal of groundwater have the	The following mitigation is recommended to address these potential effects: • Construction water will be discharged in compliance with permits and/or approvals from MECP and the City of Ottawa, as required;	**Net effects are predicted to be not significant.**

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
Resources: Groundwater Quantity	potential to result in temporary lowering of aquifers.	• A construction water management plan will be developed prior to construction and implemented appropriately (e.g., passing discharge water through a filter bag or drum before discharge to the environment to capture sediment and slow down the water velocity, etc.), as required; • Where possible, opportunities to maximize retention times and reduce surface flow velocities will be executed; • Where geotechnical conditions and engineering requirements allow, foundation types (such as helical piles) that minimize the amount of construction dewatering required will be utilized; • Where practical, discharge of construction waters is to occur at least 30 m away from sensitive receptors (e.g., watercourses, wetlands, etc.). If discharge of construction waters must occur within 30 m of a watercourse or wetland, additional ESC will be utilized; and • If deemed necessary, a hydrogeological assessment will be conducted to inform construction planning, permitting and management.	With the implementation of mitigation measures, net effects are anticipated to be immediate, isolated to construction, reversible, and negligible to low in magnitude.
Natural Environment Resources - Natural Heritage Features: Fish and Aquatic Habitat	**Construction & Maintenance:** Potential disturbance to fish habitat as a result of vegetation loss, soil erosion, sedimentation, etc.	Refer to the mitigation recommended for Surface Water Quality, Vegetation Removals and Soil Rutting, and Spills under Natural Environment Resources.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be short-term, rare or isolated in frequency, reversible, and negligible to low in magnitude.
Natural Environment Resources – Natural Heritage Features: Woodlands	**Construction:** Construction of the transmission line ROW will require removal of 0.05 ha (500 square metres) of incompatible vegetation. Incompatible vegetation communities include the following: • Fresh-Moist Poplar Deciduous Woodland Type (WODM5-1) – 0.01 ha; and • Dry-Fresh Deciduous Woodland Ecosite (WODM4) – 0.04 ha. **Maintenance:** Vegetation management within the ROW to ensure that incompatible vegetation does not threaten the safe and reliable operation of the transmission line.	The following additional mitigation is recommended to address these potential effects: • The extent of clearing and vegetation removal required for the transmission line ROW within woodlands will be minimized to the extent practical; • Woodlands will be taken into account when planning access, and the footprint of work areas/access within woodlands will be minimized to the extent practical; • Prior to construction, the MECP will be consulted regarding permitting/approvals next steps under the applicable provincial SAR legislation in effect at that time; • Tree removals and other vegetation clearing will be completed outside of the migratory bird breeding season (i.e., April 5 through August 31, nesting zone C5) (ECCC, 2018) and the bat active season (i.e., April 1 through September 30), where practical; • Where vegetation clearing is required during the breeding bird season, nest searches will be conducted by a qualified person in accordance with applicable provincial and federal requirements; • In the event woodlands with the potential to support bats require tree removals, bat acoustic surveys may be completed during the month of June in accordance with agency approved protocols to determine SAR bat habitat use (or lack thereof). Where acoustic surveys confirm SAR bat habitat use, the MECP will be consulted prior to construction regarding permitting/approvals next steps under the applicable provincial SAR legislation in effect at that time; • Snags (dead standing trees) and cavity trees that do not pose a risk to the construction or operation of the transmission line will be identified and retained, to the extent practical; and • Woodlands disturbed during construction will be restored following completion of construction with compatible native species (e.g., native seed mix and shrub stock).	**Net effects are predicted to be not significant.** Incompatible vegetation removal will not represent a net loss of vegetation on the landscape, but rather a transition from vegetation that is incompatible with transmission line corridors to vegetation that is compatible. With the implementation of mitigation measures, net effects are anticipated to be medium to long-term in duration, continuous, reversible, and low in magnitude.
Natural Environment Resources - Natural	**Construction & Maintenance:** Potential disturbance to SAR and	Refer to mitigation recommended for Vegetation Removal and Soil Rutting and Woodlands under Natural Environment Resources. Additional mitigation includes:	**Net effects are predicted to be not significant.**

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
Heritage Features: Species at Risk (SAR)	SAR habitat during construction and maintenance activities.	• Impacts to potential SAR habitat will be avoided, where possible. In the event impacts cannot be avoided, MECP will be consulted regarding permitting/approval requirements during detailed design; • Boundaries of SAR habitats will be identified and flagged off; • To the extent possible, incompatible vegetation/trees with the potential to provide SAR habitat will be removed/trimmed to the extent that they no longer pose a risk to overhead transmission lines while still maintaining their potential SAR habitat characteristics; • Construction personnel will be aware of the potential presence of, and be able to identify, SAR with the potential to occur within the general work areas; • Should SAR be encountered during construction activities, activities will be stopped until it has been determined that harm will not occur. The required activities will be assessed to determine whether the work/schedule can be modified, or mitigation measures employed, to avoid potential effects on SAR and their habitat; • If avoidance of SAR and/or SAR habitat is not possible, MECP and/or ECCC will be consulted in advance of construction to discuss detailed mitigation measures and/or assess the need for permitting/approvals under the applicable provincial SAR legislation in effect at that time or *SARA*. • If a SAR is harmed or killed as a result of work activities, the MECP and/or ECCC will be notified, and the relevant work activities will cease within the immediate area until the species has been removed by personnel authorized to handle SAR; and • SAR observed during construction activities will be reported to the MECP and/or ECCC, as required.	Permitting under the applicable provincial SAR legislation and/or SARA will be obtained in advance of construction, where necessary. With the implementation of mitigation measures, net effects to SAR are anticipated to be short to medium-term, isolated to construction, reversible, and low in magnitude.
Natural Environment Resources – Natural Heritage Features: SAR Bats	**Construction & Maintenance:** Potential disturbance or loss of SAR bats and/or SAR bat habitat.	In addition to the applicable mitigation outlined above, the following additional mitigation is recommended to address these potential effects: • Snags (dead standing trees) and cavity trees with the potential to provide SAR bat habitat that do not pose a risk to the operation of the transmission line will be identified by a qualified person and retained to the extent practical; • Habitat removal during the bat active period (April 1 to September 30) will be avoided to the extent feasible. Tree removals should take place during the non-active bat period (October 1 to March 31); • The potential to impact SAR bats would be restricted to maternity sites or day-roosts; • Assess for maternity roosts along the preferred route before construction for habitat retention, to the extent practical; • Educate contractors by informing them of the bat species in Ontario which receive species and habitat protection; • In the event potential SAR bat habitat (including trees with a 10 cm or greater diameter at breast height) requires removal in support of the Project, bat visual exit and/or acoustic surveys will be completed during the month of June in accordance with agency approved protocols to determine SAR bat use (or lack thereof); and • Should SAR bat habitat be confirmed in the ROW, the MECP will be consulted to determine if the aforementioned mitigation measures are sufficient or if permits are required under the applicable provincial SAR legislation in effect at that time.	**Net effects are predicted to be not significant.** Permitting under the applicable provincial SAR legislation and/or *SARA* will be obtained in advance of construction, where necessary. With the implementation of mitigation measures, net effects to SAR bats are anticipated to be short to medium-term, isolated to construction, reversible, and low in magnitude.
Natural Environment Resources - Natural Heritage Features: Wildlife and Significant Wildlife Habitat	**Construction:** Construction activities have the potential to impact wildlife due to vegetation removals and disturbance of wildlife	Refer to mitigation recommended for Woodlands under Natural Environment Resources. Additional recommended mitigation includes: • Boundaries of important wildlife habitats will be identified and the ROW boundaries flagged prior to clearing; • Retention of snags and cavity trees with potential to support bats, to the extent practical; • Retention of super canopy trees for nesting, to the extent practical;	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects to wildlife and significant wildlife habitat are anticipated to be short-term, isolated to construction, reversible, and low in magnitude.

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
	habitat, and introduction of potential barriers to wildlife mobility.	• Trees containing stick nests and areas where active animal dens or burrows are encountered will be left undisturbed until unoccupied, as determined by a qualified person; • Stick nests on transmission structures will be left undisturbed if eggs or young are in the nest until the young have fledged unless there is an immediate safety concern addressed. If no eggs or young are observed, the nest will be removed; • Where vegetation clearing is required, some of the cleared vegetative material may be used to create brush piles along the ROW edges to promote wildlife habitat where appropriate; • General avoidance of wildlife habitat, where practical; • Promotion of wildlife habitat through vegetation control; • Retention of natural vegetation, where possible; • Use of native plant species where restoration seeding or planting is conducted; and, • Construction personnel will be educated on the potential for wildlife which may be encountered within the general work areas.	
Natural Environment Resources - Natural Heritage Features: Invasive Species	**Construction:** Construction activities have the potential to inadvertently spread invasive species.	Refer to mitigation recommended for Vegetation Removal and Soil Rutting under Natural Environment Resources. Additional recommended mitigation includes: • Utilizing native plant species during construction restoration; • Taking care to avoid spreading invasive species (especially invasive plant species) that occur in or adjacent to work areas and educating crews on the importance of preventing the spread of invasive species; • Abiding by the *Invasive Species Act* regulations; • Proper handling, containment and disposal of invasive plant material, where required; • Inspecting and cleaning equipment and vehicles as necessary to reduce potential for spreading invasive species propagules; and • Tracking special treatment areas (e.g., large established populations of invasive species within the ROW) for consideration when planning future maintenance works.	**Net effects are predicted to be not significant.** With the implementation of mitigation measures, net effects are anticipated to be short to medium-term, rare, reversible, and low in magnitude.
Indigenous Culture, Values and Land Use	**All Phases:** Potential to affect Indigenous community interests.	• Indigenous communities have expressed interest in being involved with future archaeological and natural environment field work. Hydro One and its consulting archaeologist and biologist will work with interested communities to include Indigenous representatives in archaeological and environmental fieldwork; • Indigenous communities will be provided opportunities to review the findings of archaeological field surveys and archaeological assessment reports; and • Discovery of undocumented archaeological resources and/or human remains will follow the provisions of the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act*.	Indigenous communities will be consulted throughout the life of the Project to mitigate against adverse net effects to the communities' interests. Through engagement and consultation no net effects are anticipated.
Recreational Resources	**Construction & Maintenance:** Potential for temporary disturbance to tourism and enjoyment of recreational resources (e.g., trails, etc.).	The following mitigation is recommended to address these potential effects: • Though there may be temporary impacts to the enjoyment of recreational resources adjacent to the proposed Project, such impacts are expected to be short-term in nature; • Advanced notice will be provided to nearby residences, farms, landowners and commercial operations, outlining the location of entry/exit points for the construction site as well as the schedule for construction work or construction related traffic in those areas. Clear and temporary signage will be created and installed to reflect this information; • Disturbance to existing recreational resources will be avoided, to the extent practical. This may include timing work to avoid seasons of heavier use; and	**No net effects are predicted with the implementation of mitigation measures.**

Environmental Concern	Project Phase & Potential Effects	Mitigation Measures	Characterization of Net Effects and Determination of Significance
		• Safety precautions will be utilized throughout the Project area to protect the public such as anti-climbing devices and appropriate signage, where necessary.	
Visual & Aesthetic Resources	Due to the new transmission line being located within an existing transmission corridor, no adverse effects on visual and aesthetic resources are anticipated.	N/A	N/A

7.12. Cumulative Effects Assessment

The Cumulative Effects Assessment (CEA) for the Project has been completed in accordance with the Class EA for TF requirements. The Class EA states that, “The assessment will include the proposed undertaking and any other proposed undertakings in the immediate project area where documentation is available (e.g., other environmental assessments).” For this Project, the CEA involved the consideration of Project effects combined with effects from other proposed undertakings in the immediate Project area (overlapping the 500 m LSA) where documentation was publicly available. To extend a CEA beyond the immediate Project area (i.e., to assess trajectories of change over time on a broader regional basis) is outside the scope of the Class EA and Hydro One’s ability to influence, control, or reasonably predict.

7.12.1. Identification and Assessment of Cumulative Effects

If an environmental and socio-economic element evaluated in the effects assessment does not have any predicted net effects, then no further analysis of that element is required in the cumulative effects assessment. Therefore, the cumulative effects assessment is limited to elements with net effects that could act cumulatively with net effects from other projects or activities in the Project’s LSA.

No potential effects or net effects were identified for the following environmental and socio-economic elements as described in **Section 7.11**, and they are, therefore, not carried forward in this CEA:

- Agricultural Resources: Soil Mixing;
- Forestry Resources;
- Archaeological Resources;
- Built Heritage Resources and Cultural Heritage Landscapes;
- Land Use and Communities: Business Operations;
- Land Use and Communities: EMF;
- Mineral and Petroleum Resources;
- Atmospheric Environment: Climate Change;
- Indigenous Culture, Values, and Land Use;
- Recreational Resources; and
- Visual and Aesthetic Resources.

The depth of analysis of potential cumulative effects depends upon the relative contribution of the applied-for project to the predicted cumulative effects. The Project's contribution to potential cumulative effects depends on various factors, such as:

- The source of the disturbance;
- The resilience of the receiving environment; and
- The way in which disturbances interact in time and space.

The level of detail provided in the cumulative effects assessment reflects the extent to which a cumulative effect on an environmental or socio-economic element is probable, the likely scale or magnitude of effect, as well as the extent to which these effects can be accurately and reasonably described relative to the receiving environment.

The same criteria that were used to characterize and evaluate the significance of net effects were used for the cumulative effects assessment (see **Section 2.4**).

A qualitative assessment was considered the most appropriate method to evaluate the significance of predicted cumulative effects in consideration of the nature and context of the Project activities. The assessment of cumulative effects relied on available literature, baseline data and information, and the professional judgement of the assessment team.

The significance of the Project's contribution to cumulative effects is determined in a manner similar to that employed in determining the significance of net effects as previously outlined in **Section 2.5**.

7.12.2. Regional and Historic Cumulative Effects to Aboriginal Treaties and Indigenous Rights

Hydro One recognizes and appreciates the legacies of settlement, including agricultural and land conversion and development activities have, and continue to put pressure on Indigenous communities' current and future use of lands and resources. Hydro One's role is to provide the necessary electrical infrastructure based on regional planning assessments and direction provided by the IESO. Hydro One is acting on the direction provided by IESO to accommodate the forecasted electricity demands in the City of Ottawa and the Orléans area.

7.12.3. Project Inclusion List

The Technical Guidance for Assessing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act, 2012* (CEA Agency, 2018), and the best

practices approach described in the Cumulative Effects Assessment Practitioner's Guide (Hegmann et al., 1999) advise the inclusion of certain and reasonably foreseeable activities for cumulative effects assessment. The certain and reasonably foreseeable developments and activities identified for this assessment adopt this approach, using the following criteria:

- **Certain** – the activity or development will proceed, or there is a high probability it will proceed (i.e., the development is either under construction or has been approved).
- **Reasonably foreseeable** – the activity or development is expected to proceed (i.e., the development is in the process of obtaining approval and permits, or the proponent has publicly disclosed its intention to seek the necessary approvals to proceed).

The assessment includes certain and reasonably foreseeable activities and developments identified for the Project-specific LSA as of September 1, 2025. The sources reviewed to identify projects or activities that could have cumulative interactions with the Project include:

- Natural Resources Canada Major Projects (Government of Canada, 2025b);
- Canadian Impact Assessment Registry (Impact Assessment Agency of Canada, 2025);
- Investing in Canada Plan Project Map (Infrastructure Canada, 2025);
- Environmental Registry of Ontario (Government of Ontario, 2025a);
- Environmental Assessment Projects by Category, list of approved individual EAs by industry sector (Government of Ontario, 2025b);
- Access Environment – Environmental Approvals and Registrations Interactive Map (Government of Ontario, 2025c);
- Ontario's Infrastructure Plan Interactive Map (Government of Ontario, 2025d);
- Infrastructure Ontario Projects (Infrastructure Ontario, 2025);
- Ontario's Highways Program Interactive Map (Ministry of Transportation, 2025); and
- Hydro Ottawa Current Major Projects (Hydro Ottawa, 2025).

Some reasonably foreseeable developments are expected to have been completed prior to, or are scheduled to commence after, Project construction. Where construction schedules for reasonably foreseeable developments were not known, it was conservatively assumed that construction schedules are concurrent and overlap with Project construction activities. **Figure 7-1** provides an overview of known projects that

overlap with the LSA which have been included in this CEA. As summarized in **Table 7-2**, overlapping projects have been categorized into the following three tiers (in decreasing order of information available):

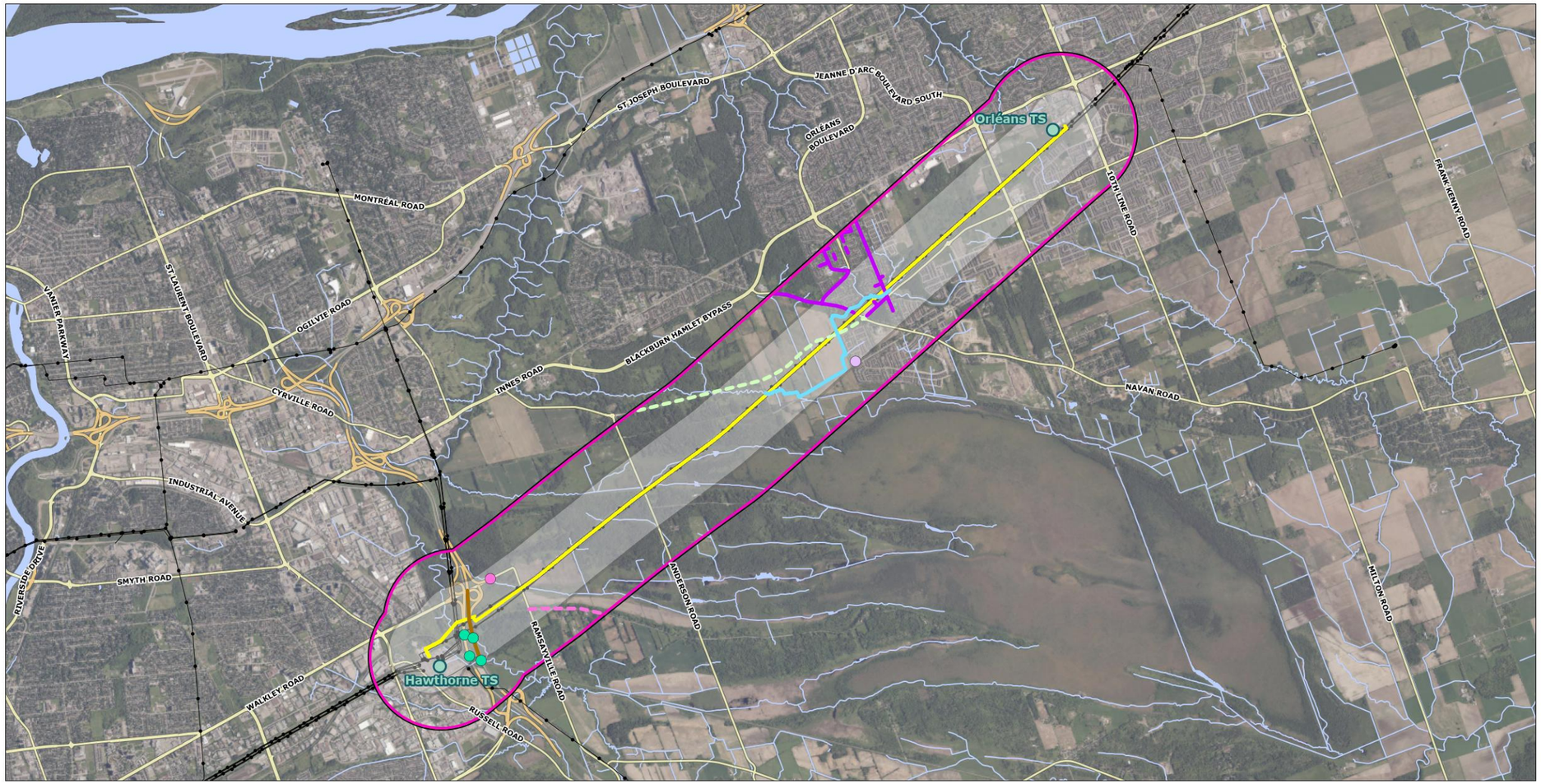
1. Projects with completed and publicly available impact assessments or environmental assessments;
2. Known current, and future Hydro One projects where the environmental assessment (including selection of a preferred alternative) is not yet completed but where, as owners of transmission line infrastructure, Hydro One has a reasonable understanding of what future potential effects may be; and
3. Other future projects where proponents have not yet started or completed an environmental assessment or other planning study such that insufficient information is publicly available to meaningfully assess interactions with the Project. It is noted that for these future projects, this Class EA and CEA will be available for consideration to their benefit, including the potential to assess cumulative effects of the Project combined with those future projects.

Table 7-2: Projects Included in the Cumulative Effects Assessment

Project Name	Proponent	Interaction with Orléans Area Reinforcement
Tier 1 Projects: Effects Assessment Documentation Publicly Available		
Brian Coburn Boulevard Extension	City of Ottawa	The proposed boulevard extension intersects with the Project LSA at Renaud Road at the centre northeast section of the proposed transmission line.
Tier 2 Projects: Hydro One Planned Future Undertakings with Owner Predicted High-Level Effect Knowledge		
Orléans System Upgrade	Hydro One Networks Inc. and Hydro Ottawa	Orléans System Upgrades will overlap with the Project LSA at the centre northeast section of the proposed transmission line.
Tier 3 Projects: Future Projects in Area where Assessment of Effects are not known		
CPR and Cyrville Road Bridges	MTO	The proposed bridge rehabilitation will intersect with the western end of the Project LSA at Highway 417.

Project Name	Proponent	Interaction with Orléans Area Reinforcement
East of Walkley Road to east of Hunt Club Bridge Replacement	MTO	The proposed bridge replacement will intersect with the western end of the Project LSA at Highway 417.
Road Resurfacing – Walkley Extension Road east of Highway 417	City of Ottawa	The proposed road resurfacing will intersect with the western end of the Project LSA near Highway 417.
Road Resurfacing – Ridge Road	City of Ottawa	The proposed road resurfacing will intersect with the western end of the Project LSA.
Natural Feature Renewal	City of Ottawa	The proposed natural feature renewal will intersect with the central portion of the Project LSA.
Sewer P.S. Renewal	City of Ottawa	The proposed sewer renewal will intersect with the central portion of the Project LSA.

Figure 7-1: Cumulative Effects Assessment



ORLÉANS AREA REINFORCEMENT PROJECT

Transformer Station (TS)
Proposed Transmission Line
Regional Study Area (1 km)
Local Study Area (500 m)
Existing Transmission Line
Major Road
Highway
Waterbody (MNR, 2024)
Watercourse (MNR, 2024)

Tier 1
Brian Coburn Boulevard Extension

Tier 2
Orleans System Upgrade

Tier 3
CPR and Cyrville Road Bridges

Natural Feature Renewal
Road Resurfacing
East of Walkley Road to east of Hunt Club Road
Road Resurfacing
Sewer P.S. Renewal

CUMULATIVE EFFECTS ASSESSMENT
FIGURE 7-1

MAP DRAWING INFORMATION:
DATA PROVIDED BY HYDRO ONE NETWORKS INC. MNRF, DILLON CONSULTING LTD.

MAP CREATED BY: AEE
MAP CHECKED BY: AL
MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

SCALE 1:50,000
0 0.5 1 2 km
PROJECT: 24-8296 STATUS: DRAFT DATE: 2025-09-30

FILE LOCATION: K:\2024\248296\Product\Client\ESR\ESR\ESR.aprx

7.12.4. Analysis of Cumulative Effects

The cumulative effects analysis completed for Tier 1 and Tier 2 projects on the Project Inclusion List is summarized in **Table 7-3**. The scope of this Project-specific cumulative effects assessment is appropriate for the scale of the Project. Project-specific cumulative effects assessments must determine whether the Project under review is incrementally responsible for adversely affecting a given element (Hegmann et al., 1999).

Cumulative effects were assessed by looking at each project's effects assessment tables from their respective EA reports, identifying potential temporary and long-term effects and net effects for each project and evaluating the predicted adverse effects of the Project, in combination with the projects identified within the Project LSA. Cumulative effects were analyzed from a "temporary effect" or a "long-term effect" perspective. Temporary effects are effects primarily related to construction activities associated with the respective infrastructure. Long-term effects represent potential project effects that may be experienced over the life of the project. It is noted, however, that some long-term effects are related to periodic maintenance activities which will not be persistent throughout the entire lifespan of the project but will be limited to periodic maintenance events (e.g., maintenance vehicles tracking mud on local roads will only occur if and when maintenance activities are required in muddy areas).

Table 7-3: Cumulative Effects Assessment

Environmental Concern	Brian Coburn Boulevard Extension – Temporary Effect	Brian Coburn Boulevard Extension – Long-Term Effect	Orléans System Upgrades -Temporary Effect	Orléans System Upgrades - Long-Term Effect	Cumulative Effects Analysis - Temporary Effect	Cumulative Effects Analysis - Long-Term Effect	Characterization of Net Cumulative Effects & Determination of Significance
Agricultural Resources: Crop Loss	**Yes** Approximately 30 ha of agricultural land will be required to accommodate the recommended project footprint and farm access may be disrupted.	**Yes** Approximately 30 ha of agricultural land will be required to accommodate the recommended project footprint and farm access may be disrupted.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has the potential to remove crops and soils from agricultural production to accommodate construction activities. If multiple projects are under construction at the same time this may result in a temporary cumulative effect of reduced agricultural production.	**Yes** One project has the potential to permanently remove agricultural land from production to accommodate new infrastructure. Multiple projects on the landscape will result in an additive loss of cropland.	**Net cumulative effects are predicted to be not significant.** Long-term permanent removal of land available for agricultural production is not considered significant in the larger landscape of Ontario. Agriculture is a compatible use within overhead transmission line ROWs and the extent of agricultural land permanently removed for transmission line projects is limited to the structure locations. The preferred route for the Project maximizes the use of the existing transmission corridor, resulting in the least amount of net new transmission structures within agricultural fields. With the implementation of mitigation measures, potential net cumulative effects are anticipated to be short-term, isolated to the construction phase, irreversible, and low in magnitude.
Agricultural Resources: Soil Compaction	**Yes** The Project has the potential to result in soil compaction during	**No** The Project has the potential to result in soil compaction during	**No** Not applicable. The project's EA did not	**No** Not applicable. The project's EA did not	**No** One project has the potential for isolated soil compaction within the	**No** Not applicable.	**No net cumulative effects are predicted.** Cumulative effects are not anticipated as the

Environmental Concern	Brian Coburn Boulevard Extension – Temporary Effect	Brian Coburn Boulevard Extension – Long-Term Effect	Orléans System Upgrades -Temporary Effect	Orléans System Upgrades - Long-Term Effect	Cumulative Effects Analysis - Temporary Effect	Cumulative Effects Analysis - Long-Term Effect	Characterization of Net Cumulative Effects & Determination of Significance
	vegetation clearing activities. Mitigation measures have been developed to prevent soil compaction and disturbed soils within impacted areas should be re-established as soon as weather/conditions permit.	vegetation clearing activities. No long-term effects are anticipated as disturbed soils and areas will be re-established as soon as weather/conditions permit.	include an assessment of this element.	include an assessment of this element.	respective project limits. Cumulative effects are not anticipated as Project-specific mitigation measures can be implemented to address the effect.		other project will not result in net effects with the implementation of project-specific mitigation measures.
Agricultural Resources: Disturbance to Farm Operations	**Yes** The project has potential to fragment existing farm parcels and reduce access due to the new road and transitway facilities. Project-specific measures are proposed to mitigate effects on farms within the project study area.	**No** Potential impacts to farm access during operation of the new infrastructure will be mitigated through design with the provision of new access.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** One project has the potential to temporarily disturb farm operations within the respective project limits. Cumulative effects are not anticipated as Project-specific mitigation measures can be implemented to address the effect.	**No** Not applicable	**No net cumulative effects are predicted.** Cumulative effects are not anticipated as the other project will not result in net effects with the implementation of project-specific mitigation measures.
Agricultural Resources: Vegetation Removal	**Yes** Approximately 30 ha of agricultural land will be required to accommodate the recommended project footprint.	**Yes** Approximately 30 ha of agricultural land will be required to accommodate the recommended project footprint.	**Potential** The project may require the removal of vegetation such as hedges and trees if they impede access to Hydro Ottawa and/or Hydro One equipment during construction.	**Potential** The project may require the long-term maintenance or removal of vegetation such as hedges and trees if they impede access to Hydro Ottawa and/or Hydro One equipment during operations.	**Yes** Two projects have the potential to temporarily disturb vegetation on agricultural lands. If multiple projects are under construction at the same time this may result in a temporary cumulative effect of reduced vegetation cover.	**Yes** Two projects have the potential to disturb vegetation on agricultural lands, and one project will require the removal of approximately 30 ha of agricultural land which represents a long-term effect on vegetation cover.	**Net cumulative effects are predicted to be not significant.** Long-term permanent removal of vegetation on agricultural land is not considered significant in the larger landscape of Ontario. Agriculture is a compatible use within overhead transmission line ROWs and the extent of agricultural land permanently removed for transmission line projects is limited to the structure footings

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							themselves. The preferred route for the Project maximizes the use of the existing transmission corridor, resulting in the least amount of net new transmission structures within agricultural fields. With the implementation of mitigation measures, net cumulative effects due to vegetation removal are anticipated to be medium-term, occasional, reversible, and low in magnitude.
Agricultural Resources: Damage to Field Tiles	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable.	**No** Not applicable.	**No** Not applicable.
Land Use and Communities: Existing and Future Land Use Designations and Potential Future Development	**No** Anticipated effects will be long-term and associated with project operation. No potential effects on land use will be temporary.	**Yes** The project requires the permanent change of the current land use (i.e., agriculture, Greenbelt) to roadway and transitway.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable.	**No** One project has identified the need to permanently acquire lands and change the land use to roadway and transitway. No cumulative effects are anticipated as the change in land use will have a positive effect on potential future development, as the roadway will improve mobility and transit through the area.	**No net cumulative effects are predicted.** While one project will result in an impact to future land uses, the impact is known ahead of the development taking place. The roadway and transitway will result in a positive effect on mobility that will not interact cumulatively with the proposed Project to cause a net adverse effect on existing and future land use or

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							potential future development.
Land Use and Communities: Local Roads and Traffic	**Yes** Construction activities have the potential to cause short-term, temporary, and localized disruptions in traffic operations especially during peak hours. This includes potential disruptions related to construction detours and lane closures.	**No** The project will have a positive net effect on traffic and mobility through the area.	**Potential** It is assumed there may be short-term impacts to local traffic during construction while workers conduct upgrades and cable replacements.	**No** Long-term impacts on local roads and traffic are not anticipated assuming Hydro Ottawa operations are similar to Hydro One's.	**Yes** Two projects have identified temporary impacts to traffic operations. This includes potential disruptions related to construction detours and lane closures.	**No** Not applicable.	**Net cumulative effects are predicted to be not significant.** Impacts on local roadways would be temporary in nature. Road closures or disruptions to traffic require approvals from local municipalities or MTO prior to construction. Local municipalities and MTO have processes in place to coordinate multi-project impacts and mitigate network disruptions. With the implementation of mitigation measures, net cumulative effects on roads and traffic during construction are anticipated to be short-term in duration, isolated to the construction phase, reversible, and low to medium in magnitude.
Land Use and Communities: Mud and Construction Debris	**Yes** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone.	**No** Long-term effects were not identified in the project's EA.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified temporary effects from construction activities. Effects can be mitigated through Project-specific mitigation measures.	**No** Not applicable.	**No net cumulative effects are predicted.** Cumulative effects are not anticipated as the other project will not result in net effects with the implementation of project-specific mitigation measures.

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Land Use and Communities: Noise and Vibration	**Yes** The expected impacts from construction will be limited to isolated and local surface construction generating an increase in intermittent noise. Intermittent noise may be a disturbance to nearby receptors.	**Yes** Noise levels at a number of areas are greater than 55 decibels with the future conditions having an increase in noise levels more than 5 decibels. A few areas are also expected to exceed 60 decibels. Therefore, noise sensitive areas may be affected by the operation of the new roadway/transitway. Mitigation measures including noise attenuating berms, walls, or a combination will be required for the project and have been incorporated into the design. Vibration levels due to the project are not expected to exceed the level commonly considered perceptible by most building occupants.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified noise effects associated with construction. Should several projects proceed at the same time these effects could be compounded.	**Yes** One project has indicated a potential for increased noise during operations. Once built, this project combined with the proposed Project and other future developments may result in an increase in nuisance noise impacting nearby receptors.	**Net cumulative effects are predicted to be not significant.** Noise and vibration during construction is temporary in nature. The potential long-term increase in noise associated with the Brian Coburn Boulevard Extension will be mitigated with project-specific mitigation measures and design features. With the implementation of mitigation measures, net cumulative effects during construction are anticipated to be short-term in duration, intermittent in frequency, reversible, and low in magnitude. With the implementation of mitigation measures, net cumulative effects from noise during operation are anticipated to be long-term in duration, continuous, reversible, and negligible in magnitude.
Natural Environment Resources - Physical Environment: Spills	**Yes** Potential for short-term localized pollutant release into watercourses related to crossings and work adjacent to the road	**No** Long-term effects were not identified in the project's EA.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified the potential for short-term localized pollutant release during construction activities. Project-specific	**No** Not applicable.	**No net cumulative effects are predicted.** Spills are not expected to occur and would be the result of an accident or malfunction. Due to the low likelihood and

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	and/or Bus Rapid Transit corridor during construction.				mitigation and spill response can be implemented to mitigate concerns.		unplanned nature of potential spills, a cumulative effects assessment is not warranted.
Natural Environment Resources - Physical Environment: Waste Generation	**Yes** The project identified that during construction there will be some excess materials that will require removal from the project site. These may include but are not limited to concrete, rubble, asphalt, waste steel/metal structural components, earth, and road ROW appurtenances.	**No** Long-term effects were not identified in the project's EA.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has the potential to generate waste materials during construction which may have effects on local communities if not handled properly. Project-specific mitigation measures can be implemented to mitigate concerns.	**No** Not applicable.	**No net cumulative effects are predicted.** Cumulative effects are not anticipated as the other project will not result in net effects with the implementation of project-specific mitigation measures.
Natural Environment Resources - Atmospheric Environment: Air Quality	**Yes** Varied construction activities, including soil/ground disturbance, are expected to create isolated and short-term local air quality impacts.	**No** The project's EA states that project contributions and pollutant concentrations are expected to improve with vehicle environmental controls and newer engine technologies. The project is anticipated to have negligible impacts on air quality.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified increased potential for isolated and short-term local air quality impacts.	**No** Not applicable.	**No net cumulative effects are predicted.** Air quality impacts are expected to be localized within a limited zone of influence during construction activities and will quickly attenuate with distance from the source. It is not likely that the project will act cumulatively with the proposed Project to noticeably impact air quality in the region.
Natural Environment Resources – Atmospheric Environment: Noise and Vibration	**Yes** Potential disturbance as a result of construction noise.	**Yes** Noise levels at a number of areas are greater than 55 decibels with the future conditions expected to have an increase in noise levels	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified noise and vibration effects associated with construction. Effects are	**Yes** One project has indicated a potential for increased noise and vibration during operations. Project-specific mitigation	**Net cumulative effects are predicted to be not significant.** Noise and vibration during construction is temporary in nature. The potential long-term

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		more than 5 decibels. A few areas are also expected to exceed 60 decibels. Therefore, noise sensitive areas may be affected by the operation of the new roadway/transitway. Mitigation measures including noise attenuating berms, walls, or in combination will be required for the project and have been incorporated into the design. Vibration levels due to the project are not expected to exceed the level commonly considered perceptible by most building occupants. The project includes an *Ecological Restoration and Enhancement Plan* to address impacts to wildlife due to edge effects, including noise.			anticipated to be short-term and temporary.	measures are proposed to address operational noise.	increase in noise associated with the Brian Coburn Boulevard Extension will be mitigated with project-specific mitigation measures and design features. With the implementation of mitigation measures, net cumulative effects from noise and vibration during operation are anticipated to be long-term in duration, continuous in frequency, reversible, and negligible in magnitude.
Natural Environment Resources - Surface Water Resources: Vegetation Removals and Soil Rutting	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable.	**No** Not applicable.	**No** Not applicable.
Natural Environment Resources - Surface Water Resources: Access Roads	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable.	**No** Not applicable.	**No** Not applicable.

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Natural Environment Resources - Surface Water Resources: Erosion and Sedimentation and Surface Water Quality	**Yes** Potential for erosion leading to sediment-laden run-off during construction activities.	**Yes** The project will result in an increase in impervious surfaces and will lead to increases in stormwater runoff peak and volume following rain events with enough rainfall to generate runoff into adjacent watercourses. The project's EA has proposed enhanced grass swales with rock check dams and vegetated filter strips to mitigate erosion and sedimentation during operation.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified increased potential for erosion and sedimentation during construction activities. The project includes an Erosion and Sediment Control Plan.	**Yes** One project has identified the potential for surface water run-off and sedimentation related to an increase in impervious surfaces during project operation.	**Net cumulative effects are predicted to be not significant.** It is possible that the other project in the LSA may interact cumulatively with the proposed Project during construction to increase sediment loads in nearby watercourses, however, this would likely only occur as a result of an accident or extreme weather event, since appropriate ESC measures will be in place on both projects. No cumulative effects are anticipated during operation of the proposed Project since no net effects during operation are predicted. With the implementation of mitigation measures, net cumulative effects during construction are anticipated to be immediate to short-term in duration, rare, reversible, and low in magnitude.
Natural Environment Resources - Source Water Protection: Source Water Protection	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable.	**No** Not applicable.	**No** Not applicable.

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Natural Environment Resources - Groundwater Resources: Groundwater Quality and Quantity	**Yes** Various construction activities, including those requiring foundations for structures, and associated with the Innes Road Bus Rapid Transit tunnel may require dewatering during construction. Potential for temporary, short-term, localized groundwater impacts to be mitigated via future study and verifying limits for lightweight fill requirements and dewatering management.	**No** Long-term effects were not identified in the project's EA.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified potential effects on groundwater quality and quantity during construction activities. Project-specific mitigation measures can be implemented to manage potential temporary effects.	**No** Not applicable.	**Net cumulative effects are predicted to be not significant.** It is possible that the other project in the LSA may interact cumulatively with the proposed Project during construction to impact groundwater quality and quantity, however, appropriate project-specific mitigation measures will be implemented for both projects. With the implementation of mitigation measures net cumulative effects during construction are anticipated to be short-term, occasional, reversible, and low in magnitude.
Natural Environment Resources - Natural Heritage Features: Fish and Aquatic Habitat	**Yes** Short-term, localized sediment release may result from run-off associated with various construction activities. Sedimentation of fish habitat may decrease water quality in the short-term, as well as cause respiratory distress and reduced feeding efficiency in fish. Project-specific mitigation measures are proposed.	**No** Long-term effects were not identified in the project's EA.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified potential for effects on fish and fish habitat during construction activities. Project-specific mitigation measures can be implemented to manage potential temporary effects.	**No** Not applicable.	**Net cumulative effects are predicted to be not significant.** Project-specific mitigation measures carried out through permitting, approvals, and license requirements can mitigate concerns at the project level. With the implementation of mitigation measures, net cumulative effects are anticipated to be short-term, rare or

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							isolated in frequency, reversible, and low in magnitude.
Natural Environment Resources - Natural Heritage Features: SAR, including SAR Bats	**Yes** There is a moderate to high probability for several SAR to occur within the project area. Potential effects during construction are anticipated due to vegetation clearing and grubbing, encroachment into unevaluated wetlands, and the installation of roadway/culvert infrastructure resulting from construction and staging activities.	**Yes** Long-term impacts include impacts to SAR birds and bats through the removal of treed habitat and nesting areas.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified potential effects on SAR during construction activities. Project-specific mitigation measures can be implemented to manage potential temporary effects.	**Yes** One project has identified potential long-term effects on SAR. Project-specific mitigation measures can be implemented to manage potential long-term effects.	**Net cumulative effects are predicted to be not significant.** Potential impacts can be mitigated through project-specific mitigation measures, including those carried out through adherence to SAR timing windows for vegetation clearing and permit conditions. With the implementation of mitigation measures, net cumulative effects to SAR are anticipated to be short to medium-term, periodic, reversible, and low in magnitude.
Natural Environment Resources - Natural Heritage Features: Wildlife and Significant Wildlife Habitat	**Yes** The project will result in localized reduction and disturbance of natural areas within the Greenbelt, an increase in habitat fragmentation and reduction of habitat connectivity, increases in wildlife vehicle collisions and wildlife mortality, edge effects (noise, road salt, and other vehicle pollutants, lights, reduction of core habitat, etc.).	**Yes** The project will result in localized reduction and disturbance of natural areas within the Greenbelt, an increase in habitat fragmentation and reduction of habitat connectivity, increases in wildlife vehicle collisions and wildlife mortality, edge effects (noise, road salt, and other vehicle pollutants, lights, reduction of core habitat, etc.).	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified effects to wildlife habitat and significant wildlife habitat. With the implementation of project-specific mitigation measures, the net effect is anticipated to be negligible to moderate.	**Yes** One project has identified effects to wildlife habitat and significant wildlife habitat. With the implementation of project-specific mitigation measures, the net effect is anticipated to be negligible to moderate.	**Net cumulative effects are predicted to be not significant.** Mitigation for the Brian Coburn Boulevard Extension mitigation includes an Ecological Restoration and Enhancement Plan to offset permanent habitat loss and the proposed Project is being constructed within an existing maintained transmission line ROW with limited net effects

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							anticipated on wildlife and wildlife habitat. With the implementation of mitigation measures, net cumulative effects to wildlife and significant habitat are anticipated to be long-term in duration, periodic, reversible, and medium in magnitude.
Natural Environment Resources - Natural Heritage Features: Invasive Species	**Potential** The project report has identified best management practices during construction to prevent the introduction of invasive species.	**Potential** The project report has identified best management practices during operation to prevent the introduction of invasive species.	**No** Not applicable. The project's EA did not include an assessment of this element.	**No** Not applicable. The project's EA did not include an assessment of this element.	**Yes** One project has identified the potential for introduction or spread of invasive species during construction activities. Project-specific mitigation measures can be implemented to manage potential temporary effects.	**Yes** One project has identified the potential for introduction or spread of invasive species during operation. Project-specific mitigation measures can be implemented to manage potential long-term effects.	**Net cumulative effects are predicted to be not significant.** The Brian Colburn Boulevard Extension and the proposed Project will implement industry standard best practices for the control and management of invasive species during their construction and operation. With the implementation of mitigation measures, net cumulative effects are anticipated to be short to medium-term, rare, reversible, and low magnitude.

7.12.5. Summary of Cumulative Effects

The potential cumulative effects for the Project were assessed by considering potential effects from other undertakings that interact and overlap with the Project LSA (500 m from the preferred route for the Project). Potential effects were determined based on publicly available information from completed Environmental Assessments where possible or based on anticipated potential project effects from other Hydro One projects being planned nearby.

The CEA determined that there are no areas of environmental concern that will result in a significant net cumulative effect. The mitigation measures outlined for the Project, summarized in **Table 7-1**, provide adequate Project-specific mitigation that remain effective after considering cumulative effects from the other projects. In the event some or all of the projects identified proceed concurrently, temporary construction-related effects can be further coordinated for mitigation with project proponents.

8.0 Effects Monitoring

The purpose of effects monitoring is to confirm the extent of the proposed Project's environmental effects by comparing the actual effects with the predicted effects, to verify the effectiveness of mitigation measures, and to determine whether additional measures are warranted. Monitoring also confirms that the commitments, conditions of approval, where applicable, and compliance with other environmental legislation are met. An Environmental Specialist will be assigned to the Project for the duration of construction to monitor construction activities and provide guidance on needed field changes.

As noted in **Section 7.0**, a Project-specific Environmental Management Plan will be prepared following the completion of the Class EA process and before the start of construction. The Environmental Management Plan will:

- Summarize legislative requirements;
- Summarize environmental commitments set out in the final ESR, and terms and conditions of approval, if any;
- Ensure the documentation of pre-construction site conditions, where necessary;
- Provide specific directions to construction personnel on the implementation of environmental mitigation measures, response plans, and other information (e.g., identification of SAR);
- Ensure supporting protection plans have been implemented during construction;
- Describe the environmental monitoring process and frequency to be undertaken during construction;
- Outline steps to be taken when documenting monitoring and identify procedures for follow-up actions, as required; and
- Provide specific directions on the post-construction restoration of work areas and access locations.

At the end of construction, an as-constructed plan will be prepared to guide ongoing operation and maintenance activities. The plan will document "as constructed" conditions as well as ongoing monitoring requirements, if required.

9.0 Conclusion

Hydro One is seeking approval under the *EA Act* to construct a new 115 kV transmission line and upgrade an existing 115 kV transmission line to 230 kV to upgrade the electricity supply in the Orléans area in the City of Ottawa. The new 115 kV transmission line will be approximately 12 km in length and will be located between Hawthorne TS and Orléans TS in the City of Ottawa. The Project will also involve a new 44 kV yard and feeder egress at Hawthorne TS and a new 230 kV autotransformer at Orléans TS to facilitate the increased station capacity.

Following identification of the need for the Project, Hydro One identified a preferred route that utilizes an existing transmission corridor. As discussed in **Section 5.0**, co-location of infrastructure provides several benefits such as efficiency during construction and maintenance by utilizing existing access roads and limiting construction impacts to the existing ROW.

Since the Notice of Commencement was published in August 2024, municipal, provincial, and federal government officials, staff and agencies, Indigenous communities, potentially affected and interested persons, and interest groups were consulted. One COH was held on April 9, 2025, from 3:00 - 7:00 PM, in the Orléans neighbourhood of Ottawa. The COH was a drop-in format and included display panels and tabletop mapping and Project staff members were available to answer questions. Additionally, an interactive online mapping platform was hosted on the Project web page since the commencement of the Class EA process, with regular updates to reflect the progress of the Project and Class EA.

Potential short- and long-term environmental effects were identified for the proposed Project and corresponding mitigation measures were developed to address these effects. Based on information collected, Project design, and the planned implementation of the proposed mitigation measures, no significant net effects are predicted as a result of the Project.

The draft ESR was made available for public review and comment for 30 days, from October 20, 2025, to 4:30 PM on November 19, 2025. Additionally, Hydro One extended

the draft ESR comment period for Algonquins of Ontario and Algonquins of Pikwakanagan to provide more time for a fulsome review. Hydro One has made best efforts to respond and resolve issues raised by concerned parties during the comment period. Comments received during this period, and Hydro One's responses, are documented in this final ESR.

Upon filing of this final ESR with the MECP, the proposed Project will be implemented in full compliance with the requirements of the Class EA process as outlined in the final ESR, incorporating input obtained throughout the planning process. Hydro One will obtain the necessary environmental approvals and permits required for the proposed Project prior to construction.

10.0 References

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Appendix A

Appendix A-1

Contact List

Indigenous Communities, Businesses & Affiliations

Organisation	Full name	Position	Status	Email	Main address	Main phone
Algonquins of Ontario	AOO Economic Development Office	Economic Develop	Active	algonquins@tanakiwin.com	31 Riverside Drive, Suite 101 Pembroke ON K8A 8R6	
Algonquins of Ontario	Ashley Keller		Active	akeller@tanakiwin.com		
Algonquins of Ontario	Candise Todd		Active	ctodd@tanakiwin.com		
Algonquins of Ontario	Consultation Office		Active	algonquins@tanakiwin.com	31 Riverside Drive, Suite 101 Pembroke ON K8A 8R6	
Algonquins of Ontario	Ethan Huner	Natural & Cultural Resource Strategist	Active	ehuner@tanakiwin.com	31 Riverside Drive, Suite 101 Pembroke ON K8A 8R6	+1 613 735 3759 ext. 209
Algonquins of Ontario	Finance		Active	finance@tanakiwin.com		
Algonquins of Ontario	Gabriel Pearce		Active	gpearce@tanakiwin.com		
Algonquins of Ontario	Jim Meness	Executive Director	Active	jmeness@tanakiwin.com	31 Riverside Drive, Suite 101 Pembroke ON K8A 8R6	
Algonquins of Ontario	Josee Rochon		Active			
Algonquins of Ontario	Melissa Knight	Senior Project Development Manager	Active	mknight@tanakiwin.com		
Algonquins of Pikwakanagan	Amanda Two-Axe Kohoko	Consultation Coordinator/ Economic Development	Active	consultation@pikwakanagan.ca	3-469 Kokomis Inamo Pikwakanagan ON K0J 1X0	+1 613 625 2800 ext. 237
Algonquins of Pikwakanagan	Donna Mcknight		Active	finance.consultant@pikwakanagan.ca		
Algonquins of Pikwakanagan	Doug Kutschke		Active	finance@pikwakanagan.ca		
Algonquins of Pikwakanagan	Kassandra Tiegs		Active	pmgr2.consultation@pikwakanagan.ca		
Algonquins of Pikwakanagan	Korey Kauffeldt	Energy Project Coc	Active	CEC@pikwakanagan.ca		(613) 625-1551
Algonquins of Pikwakanagan	Samantha Galbraith		Active			(613) 625-1551
Algonquins of Pikwakanagan	Selena Roesler	Finance Manager	Active	mgr.finance@pikwakanagan.ca		
Algonquins of Pikwakanagan	Valerie Taggart	Project Coordinato	Active	projectco3@pikwakanagan.ca		
Kitigan Zibi Anishinabeg	Jean-Guy Whiteduck	Chief	Active	jean-guy.whiteduck@kza.qc.ca	1 Paganakomin Mikan P.O. Box 309 Maniwaki QC J9E 3C9	+1 819 449 5170
Kitigan Zibi Anishinabeg	Samantha Tenasco	Executive Secretar	Active	samantha.tenasco@kza.qc.ca	1 Paganakomin Mikan P.O. Box 309 Maniwaki QC J9E 3C9	

Federal Government & Agencies

Organisation	Full name	Position	Status	Email	Main address	Main phone
Canadian National Railway (CN Rail)	Proximity CN Rail	Proximity General	Active	Proximity@cn.ca	1 Administration Road Vaughan ON L4K 2R8	
National Capital Commission (NCC)	Alexander Stone	Environmental Program Officer – Greenbelt	Active	Alexander.Stone@ncc-ccn.ca	40 Elgin Street Ottawa ON K1P 1C7	+1 613 239 5678
National Capital Commission (NCC)	Geneviève Marquis		Active	genevieve.marquis@ncc-ccn.ca		

National Capital Commission (NCC)	Isabelle Hughes	Acting Senior Manager, Greenbelt & Natural Resources	Active	isabelle.hughes@ncc-ccn.ca		
National Capital Commission (NCC)	Jasmine Guest		Active	Jasmine.Guest@ncc-ccn.ca		
National Capital Commission (NCC)	Joshua Nguyen	Environmental Offi	Active	joshua.nguyen@ncc-ccn.ca		
National Capital Commission (NCC)	Marie-eve Bellfoy		Active	marie-eve.bellfoy@ncc-ccn.ca		
National Capital Commission (NCC)	Marion Gale	Senior Land Use Pl	Active	Marion.Gale@ncc-ccn.ca		613-239-5678
National Capital Commission (NCC)	Monica Maika		Active	monica.maika@ncc-ccn.ca		
National Capital Commission (NCC)	Natalie Glancy	Environmental Offi	Active	Natalie.Glancy@ncc-ccn.ca	40 Elgin Street, Suite 202 Ottawa ON K1P 1C7	+1 613 239 5678 ext. 5659

Provincial Government & Agencies

Organisation	Full name	Position	Status	Email	Main address	Main phone
Ministry of Citizenship and Multiculturalism (MCM)	Karla Barboza	Team Lead - Heritage	Active	karla.barboza@ontario.ca	400 University Avenue, 5th Floor, Toronto, Ontario, M7A 2R9	+1 416 660 1027
Ministry of Energy and Electrification	Farrah Ali-Khan		Active		77 Grenville Street Toronto ON M5S 1B1	+1 416 526 2963
Ministry of Energy	Amy Gibson	Manager - Indigenous Energy Policy	Inactive		77 Grenville Street, 5th Floor Toronto ON M7A 2C1	+1 416 315 8641
Ministry of Energy	Gillian Brown	Senior Advisor (A) - Indigenous Energy Policy	Inactive		77 Grenville Street Toronto ON M5S 1B1	+1 647 924 8139
Ministry of Energy	Rosalind Ashe	Senior Advisor - Indigenous Energy Policy	Inactive		77 Grenville St., 6th Floor Toronto ON M7A 1B3	+1 437 239 6154
Ministry of Municipal Affairs and Housing (MMAH)	Michael Elms	Community Planning and Development	Active	michael.elms@ontario.ca	8 Estate Lane, Rockwood Kingston ON K7M 9A8	+1 613 545 2132
Ministry of Natural Resources and Forestry (MNRF)	MNR Southern Region Email Int	MNRF Southern Region Email Inbox	Active		99 Wellesley Street West, Toronto, Ontario, Canada, M7A 1W2	
Ministry of Natural Resources (MNR)	MNR Southern Region Email Int	MNR Southern Region Email Inbox	Active	SR.planning@ontario.ca	99 Wellesley Street West, Toronto, Ontario, Canada, M7A 1W2	
Ministry of the Environment, Conservation and Parks (MECP)	EA Notification Eastern Region	General Mailbox	Active	eanotification.eregion@ontario.ca	1259 Gardiners Road, Unit 3 Kingston ON K7P 3J6	+1 613 540 6852

Ministry of the Environment, Conservation and Parks (MECP)	Emily Tieu	Supervisor (A), Ottawa District - Drinking Water and Environmental Compliance Division	Active	Emily.Tieu@ontario.ca	2430 Don Reid Drive, Unit 103 Ottawa ON K1H 1E1	+1 613 521 3450 ext. 235
Ministry of the Environment, Conservation and Parks (MECP)	Jon Orpana	Environmental Resource Planner & EA Coordinator - Eastern Region	Active	jon.orpana@ontario.ca	135 St. Clair Avenue West, 8th Floor, Toronto, Ontario, M4V 1P5	613-548-6918
Ministry of Transportation (MTO)	Alexandre Gitkow	Corridor Management Officer (East)	Active	Alexandre.Gitkow@ontario.ca		613-323-1253
Ministry of Transportation (MTO)	George Taylor	Highway Corridor Management Officer	Active	George.Taylor2@ontario.ca	1355 John Counter Boulevard Kingston ON K7K 0E5	+1 613 483 5307
Ministry of Transportation (MTO)	Jenn Meleschuk	Manager, Engineering Program Delivery East	Inactive		1355 John Counter Blvd Postal Bag 4000 Kingston ON K7L 5A3	+1 613 539 6231
Ministry of Transportation (MTO)	Kartik Suresh	Head, Corridor Management East	Active	Kartik.Suresh@ontario.ca		
Ministry of Transportation (MTO)	Tarique Kamal	Senior Project Manager	Active	Tarique.Kamal@ontario.ca		
Rideau Valley Conservation Authority	Glen McDonald	Director of Planning and Watershed Science	Active	glen.mcdonald@rvca.ca	3889 Rideau Valley Drive Manotick ON K4M 1A5	+1 613 692 3571 ext. 1133
Rideau Valley Conservation Authority	Megan Peacock	Regulations Officer - Engineering and Regulations	Active	megan.peacock@rvca.ca	3889 Rideau Valley Drive Manotick ON K4M 1A5	+1 613 692 3571 ext. 1193
South Nation Conservation	James Holland	Senior Planner	Active	jholland@nation.on.ca	38 Victoria Street, P.O. Box 29 Finch ON K0C 1K0	+1 613 984 2948

Municipal Government & Elected Officials

Organisation	Full name	Position	Status	Email	Main address	Main phone
City of Ottawa	Catherine Kitts	Councillor, Ward 19 Orléans South-Navan	Active	Catherine.Kitts@ottawa.ca		

City of Ottawa	Frank McKinney	Program Manager - Transportation Planning, Environmental Assessments	Active	frank.mckinney@ottawa.ca	110 Laurier Avenue West 4th Floor, Ottawa ON K1P 1J1	+1 613 580 2424 ext. 28540
City of Ottawa	Heather Scott	Councillor's Assistant, Ward 19 (Orleans South Navan)	Active	Heather.Scott@ottawa.ca		
City of Ottawa	Laura Dudas	Councillor, Ward 2	Active	Laura.Dudas@ottawa.ca	110 Laurier Avenue West Ottawa ON K2P 2H9	
City of Ottawa	Planning Department	Planning Departme	Active	planning@ottawa.ca	110 Laurier Avenue West Ottawa ON K1P 1J1	

Appendix A-2

Compiled Consultation Materials

Orléans Area Reinforcement

Notice of Commencement

Hydro One is energizing life in the City of Ottawa by ensuring we can meet the present and future electricity needs of a growing and vibrant community. To support growing electricity demand in the Orléans area, Hydro One is initiating a Class Environmental Assessment to build a new approximately 12 kilometer 115 kilovolt (kV) transmission line. This project also includes converting an existing 115 kV transmission line to 230 kV.

Project description

The proposed new transmission line would be in the middle of an existing hydro corridor between Hydro One's Hawthorne Transformer Station (TS) and Orleans TS, as shown on the map. The majority of the new line would consist of single poles similar to roadside distribution lines.

No alteration to the existing transmission corridor are required to convert the existing transmission line from 115 kV to 230 kV, but modifications to station equipment inside Hawthorne TS and Orleans TS are required to accommodate the increased capacity.

The Class EA Process

The Class EA will follow the "Class Environmental Assessment for Transmission Facilities" (Class EA, 2024), in accordance with the *Ontario Environmental Assessment Act*. This process applies to routine transmission infrastructure projects and ensures that potential natural, economic, social, and cultural effects are thoroughly considered before a project begins. For more information, please visit **HydroOne.com/ClassEA**.

Following approval from the Ontario Energy Board under Section 92 (Leave to Construct) of the *Ontario Energy Board Act*, and the successful completion of the Class EA process, construction would commence in 2025 and be completed by 2028.

Freedom of Information and Protection of Privacy Act
All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of Section 30 of the *Environmental Assessment Act* and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the *Freedom of Information and Protection of Privacy Act* (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential.

See reverse for map

We want to hear from you

Early, meaningful and open engagement is a top priority for Hydro One. Receiving input from Indigenous communities, members of the public, businesses, government agencies, and other interested parties will be instrumental to inform the Class EA and project. We invite you to engage with us. You can also email us to join our project contact list to receive updates about the project. A Community Open House will be held locally in late 2024 and a separate invitation will be distributed.

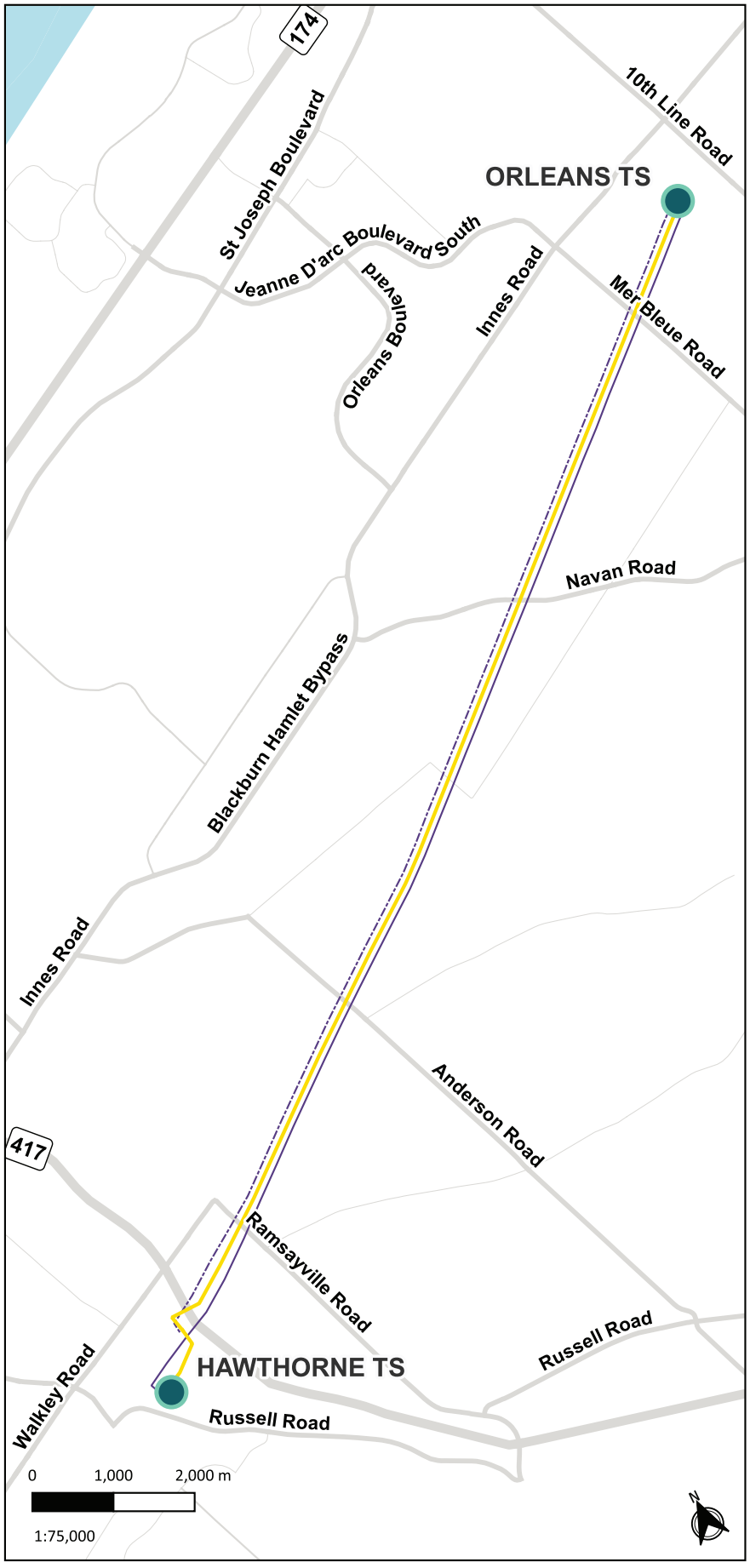
1.877.345.6799

Community.Relations@HydroOne.com

HydroOne.com/Orleans

Map Legend

- Proposed 115 kV Transmission Line
- Existing Transmission Line to be operated at 230 kV
- Existing Transmission Line
- Transformer Station
- Road
- Watercourse
- Waterbody



Invitation to our community open house

Orléans Area Reinforcement project

March 2025

Hydro One is energizing life in the Ottawa area to meet current and future electricity needs of Orléans. In late 2024, Hydro One initiated a class environmental assessment (class EA) for the Orléans Area Reinforcement project. The proposed project includes a new 115 kilovolt (kV) transmission line between Hydro One's existing Hawthorne Transformer Station (TS) and Orléans TS. The project also includes converting an existing 115 kV transmission line between the two stations to 230 kV.

Once built, the proposed new 115 kV transmission line will run along the existing hydro corridor, as shown on the map on the reverse side of this notice. There are no anticipated changes to the existing transmission towers to convert the line from 115 kV to 230 kV. Equipment in both stations will be upgraded to connect the new proposed line.

Planning process

Minimizing the environmental effects of our projects and operations is important to us. The planning of this project is following the Class EA for Transmission Facilities (2024) in accordance with Ontario's *Environmental Assessment Act*. As part of the class EA process, potential impacts are being considered by gathering environmental and technical data, along with input from Indigenous communities, community members, elected officials, interest groups and businesses.

A portion of the proposed project is on federal lands owned by the National Capital Commission (NCC) and is subject to the *National Capital Act*, as well as Section 82 of the *Impact Assessment Act* (IAA). The project requires a Federal Land Use, Design and Transaction Approval (FLUDTA) in accordance with the *National Capital Act* and a determination of significance in accordance with Section 82 of the IAA. Later in this study, a project description for the portion of the project on federal lands will be posted on the Canadian Impact Assessment Registry for a 30-day comment period as part of the federal regulatory approval process. The project is planned to be completed and in-service by 2028.

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See reverse for map

We want to hear from you

Meaningful and open engagement is a priority for Hydro One. Feedback from residents, interest groups, elected officials and Indigenous communities will be used to inform all aspects of the class EA and the project.

We invite you to attend our in-person community open house to learn more about the project, ask our team questions and share your feedback. You can also visit our website for project updates and contact information.

Wednesday, April 9

Notre-Dame-des-Champs Community Hall
3659 Navan Road
Ottawa, ON K2B 1H9
3 to 7 p.m.

We're here to help

If you have any questions, or would like additional information about this project, contact us at:

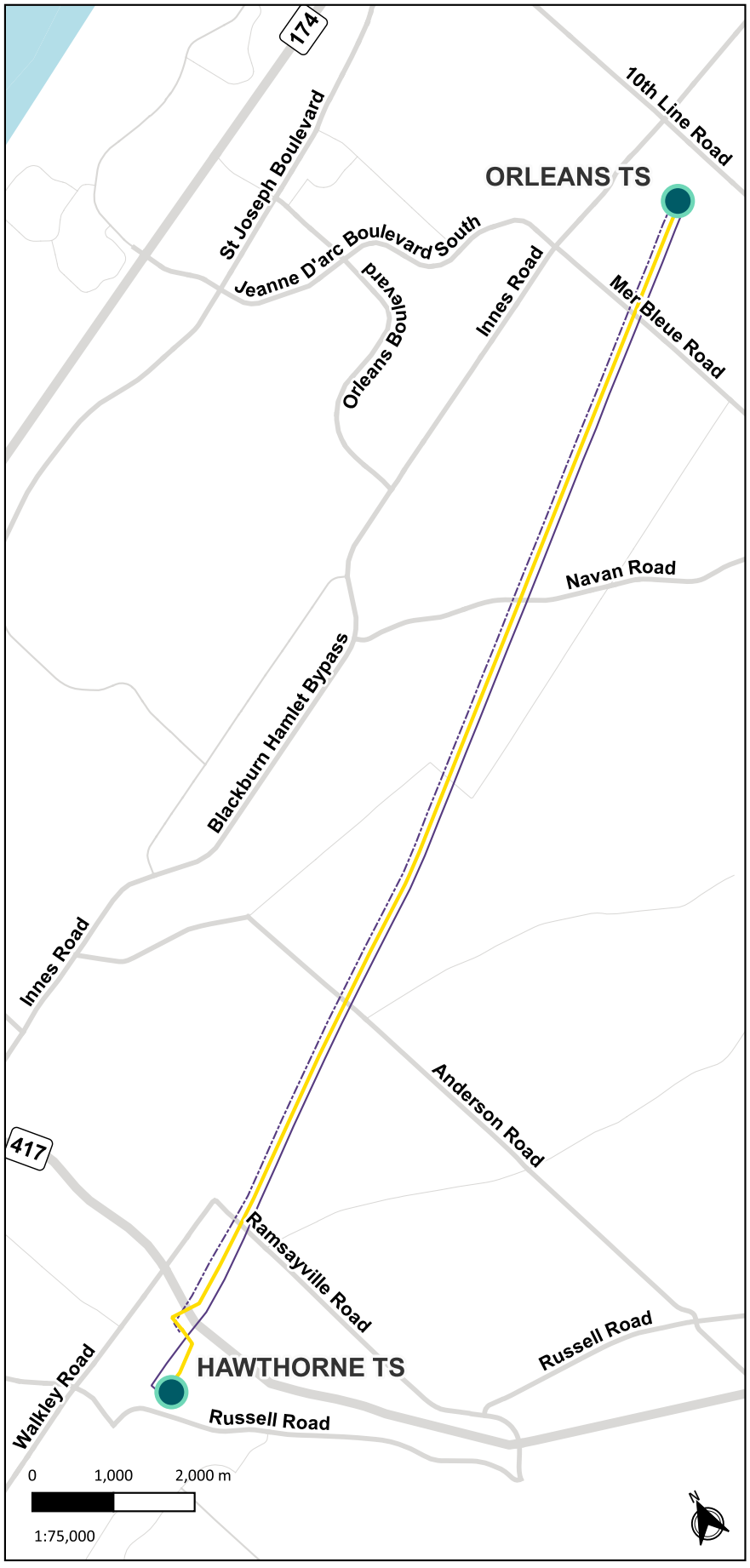
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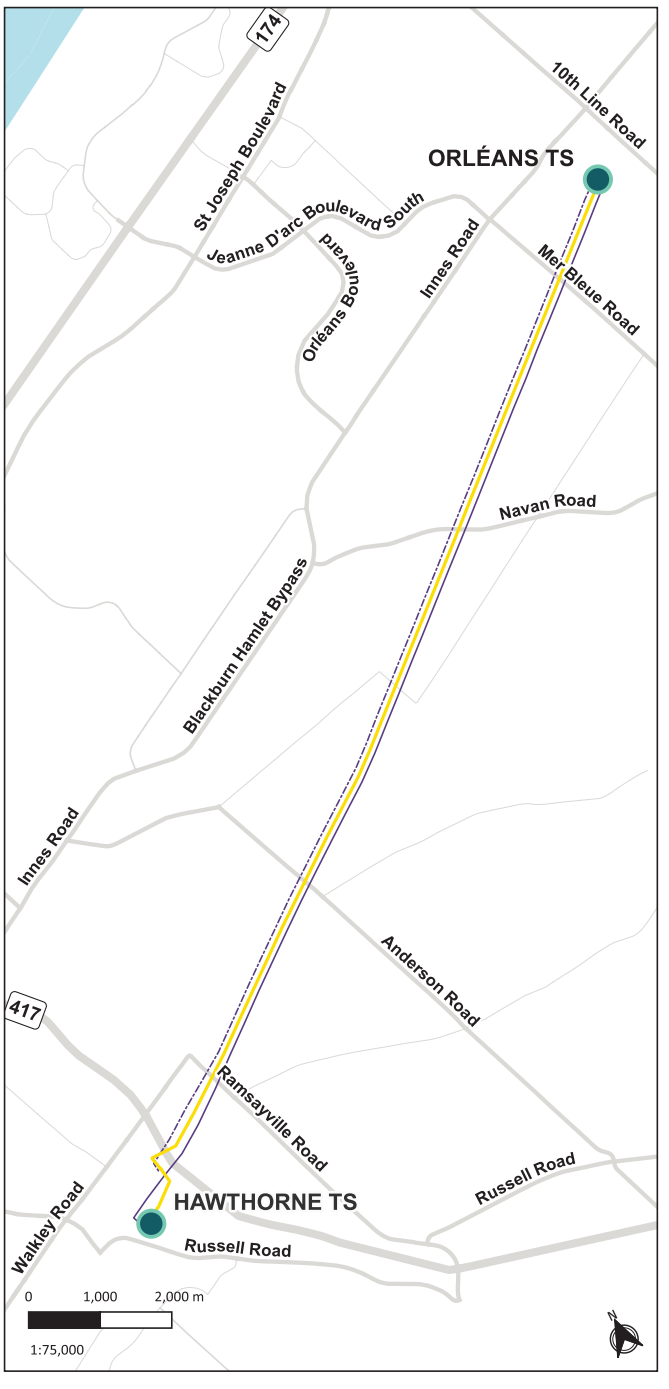
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hydro one

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Notre-Dame-des-Champs Community Hall
3659 Navan Road
Ottawa, ON K2B 1H9
3 to 7 p.m.

We're here to help

If you have any questions, or would like additional information regarding this project, please feel free to contact us at:

416.345.6799

Community.Relations@HydroOne.com

HydroOne.com/Orleans

Welcome

Orléans area reinforcement project

Community open house

April 2025



Welcome

Orléans area reinforcement project

Community open house

We are here today to:

- Share project details for the proposed new transmission line and existing line upgrade
- Provide an overview of the Class Environmental Assessment (Class EA) process
- Present key milestones and next steps
- Gather your input and answer questions



HydroOne.com/Orleans

How the system works

Building infrastructure to meet the energy needs of today and tomorrow involves a number of partners, including:

Builds, owns, operates and maintains electricity transmission and distribution facilities across Ontario

Oversees planning to ensure electricity needs are met both now and in the future

Regulates the electricity market in Ontario, including electricity rates



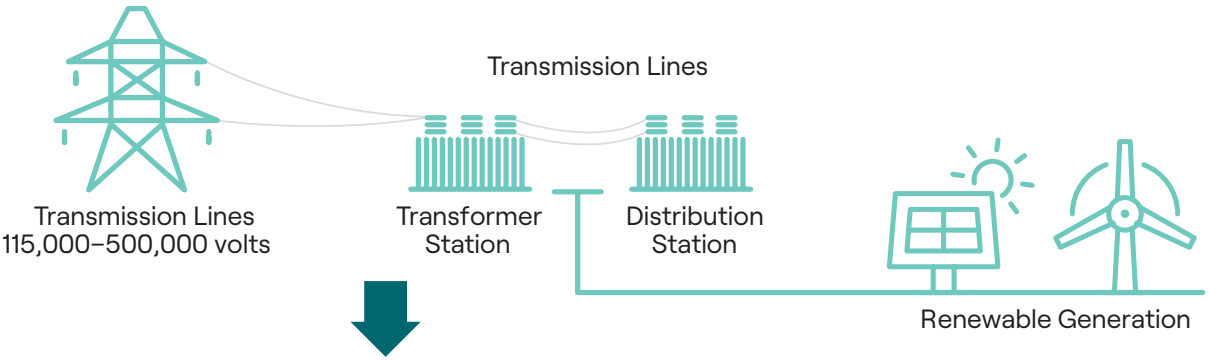
Hydro One's role in delivering power to you

We energize life for people and communities, helping Ontarians live better and have a brighter future.

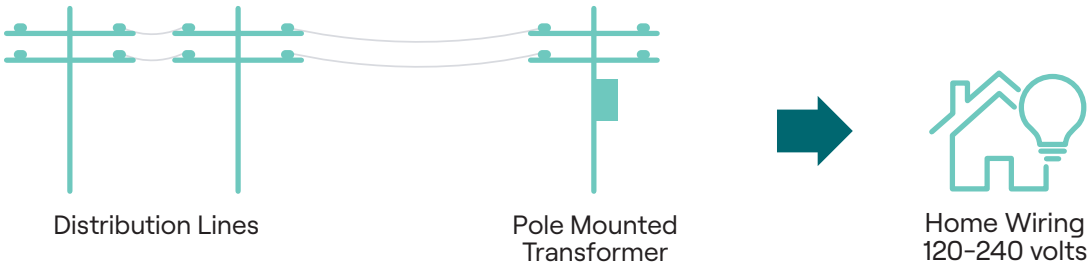
Ontario Power Generation and private generation companies



Hydro One or licensed transmitter



Hydro One or Ottawa Hydro



Project overview

To support growing electricity demand in the Orléans area, Hydro One is initiating a Class Environmental Assessment (Class EA) to propose the following:

- A new 115-kilovolt (kV) transmission line that will be approximately 12 kilometres (km) long
- Convert an existing 115-kV transmission line to 230-kV

The proposed new transmission line would be in the middle of the existing transmission corridor between Hydro One's Hawthorne Transformer Station (TS) and Orléans TS.

Changes to the existing transmission structures are not expected to convert the existing 115-kV line to 230-kV. We expect upgrades to both Hawthorne TS and Orléans TS to connect the new line.



Planning process

The Class Environmental Assessment (Class EA) for Transmission Facilities (2024) is the first step towards completing the planning for this proposed project. This process applies to transmission infrastructure projects that are carried out routinely and have predictable environmental effects that can be readily managed to ensure that potential effects are thoroughly considered before a project begins.

Steps of a Class EA

- Consultation with Indigenous communities, property owners, community members, elected officials, interest groups and government agencies
- Collection of environmental (natural and socio-economic) data
- Evaluation of reasonable alternative methods for reinforcing the Orléans area electricity supply
- Identification of potential effects and mitigation measures
- ★ Selection of a preferred method of reinforcing electricity supply
- Draft environmental study report (ESR) made available for public review and comment period
- Final ESR and Statement of Completion submitted to the Ministry of the Environment, Conservation and Parks (MECP)

For more information, please visit **HydroOne.com/ClassEA**

Planning process for federal lands

Approximately six km of the proposed project is on federal lands owned by the National Capital Commission (NCC) and is subject to the *National Capital Act*, as well as Section 82 of the *Impact Assessment Act* (IAA). The project requires a Federal Land Use, Design and Transaction Approval (FLUDTA) in accordance with the *National Capital Act* and a determination of significance in accordance with Section 82 of the IAA.

Later in this study, a project description for the portion of the project on federal lands will be posted on the Canadian Impact Assessment Registry for a 30-day comment period as part of the federal regulatory approval process.



Proposed route

The route for the proposed new transmission line is within an existing transmission corridor between Hawthorne TS and Orléans TS as shown on the map to the right



Legend

- Transformer Station (TS)
- Proposed Transmission Line
- Existing Transmission Line
- Existing Transmission Line to be Operated at 230 kV
- Road
- Waterbody
- Watercourse
- National Capital Commission (NCC) Trail

SCALE 1:7,500

0 0.5 1 2km

See our table maps for a larger version of the proposed route.

Benefits of the proposed route

The proposed route uses the existing transmission corridor between Hawthorne TS and Orléans TS and has the following benefits:

- Limits impacts to the natural environment and cultural heritage resources by working within the existing corridor
- Avoids property impacts by limiting the project to the existing Hydro One corridor
- Reduces the cost and technical complexity of the project by limiting the need for new infrastructure or facilities

Rationale for the proposed route

The Class EA requires that if technically reasonable alternative methods, such as routes or sites, are identified, they be assessed through a comparative evaluation.

Assessing alternative routes is not necessary in this case because this project can be completed within the existing corridor. As a result, this Class EA is focused on consultation and impact assessment with respect to the proposed route.

Working in the community

We understand these types of projects can be disruptive, and we will make best efforts to minimize impacts by:



Working closely with licence holders for recreational facilities along the corridor and reduce impacts to these facilities as much as possible.



Installing safety equipment under the wires to minimize road or walkway closures.



Installing signs along the corridor during construction.



Minimizing impacts with selective vegetation removals.



Talk to our project team, use the table map and/ or our interactive map on our website to share locations you have specific concerns about.

Designing the transmission line

When the proposed route is confirmed and approved, the detailed design for the transmission line will consider:

- Residential and business effects
- Structure heights and clearances
- Structure locations
- Environmental constraints
- Distance between structures
- Construction methodology
- Topography and soil conditions

Over the next several months, we will complete more detailed environmental and technical studies to inform the design of the proposed new line. We will also gather feedback from local residents, interest groups and Indigenous communities to help inform the design and mitigation measures.



Working with property owners

Throughout the planning and delivery of the project we will:

- Engage with owners to discuss how the proposed transmission line may intersect with their properties.
- Understand existing conditions and work with owners to ensure feedback is taken into consideration.
- Answer questions and provide regular project information and updates.

As we move through the Class EA process, our real estate team will work with directly impacted property owners to discuss next steps.



Working with Indigenous communities

Hydro One continues to work closely with Indigenous communities in a spirit of cooperation and shared responsibility.

Forging meaningful relationships with Indigenous communities based on trust, confidence and accountability is vital to building partnerships and advancing reconciliation.

Our engagement, advocacy and strategic direction are set by Indigenous Relations policy and led in collaboration with the Indigenous communities we work with every day.

Hydro One's approach



Project timeline

Ongoing engagement throughout the project

Environmental studies & assessments

August 2024
Notice of Commencement of Class EA

April 2025
Community open house

September 2025
Release of draft ESR for public review

October/November 2025
Finalize Class EA

June 2026
Proposed start of construction, pending approvals

2028
Line in-service

*All dates are subject to change



Thank you

Your feedback and input is important to us. Please share your feedback with our team and complete a comment form before you go. To provide comments or to be added to the project contact list, please call or email:

1.877.345.6799

Community.Relations@HydroOne.com

For the most up-to-date project information and project updates, visit:

HydroOne.com/Orleans

Appendix A-3

Record of Consultation

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-01-09 15:43	Email	Outgoing	Ethan Huner Jim Meness Melissa Knight	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and informed them that a Class Environmental Assessment (EA) for a new 115 kV transmission line in Ottawa, with plans to convert an existing line to 230 kV, had been initiated. Hydro One welcomed Algonquins of Ontario to participate in spring field studies and offered to meet for a briefing.
2025-01-10 09:12	Email	Incoming	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and thanked them for providing information regarding the Project. Algonquins of Ontario provided the contact information for the representative who would be coordinating monitors for archaeological studies. Algonquins of Ontario noted they would review the Project information and reach out with any questions.
2025-01-10 11:09	Email	Outgoing	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Ontario and introduced themselves to the representative that was coordinating the archaeological field monitors.
2025-01-13 09:28	Email	Incoming	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Hydro One and noted they would soon be in touch with input on the Project.
2025-01-16 10:32	Email	Incoming	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	The Algonquins of Ontario representative coordinating the archaeological field monitors emailed Hydro One and introduced themselves.
2025-03-10 10:46	Email	Outgoing	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Ontario and invited them to the public community open house and to connect them with the consultants leading the field monitoring in the spring.
2025-03-10 11:49	Email	Incoming	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Hydro One and indicated their interest in participating in the upcoming field monitoring season and expressed their interest in attending the community open house.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-03-14 09:34	Email	Outgoing	Candise Todd Ethan Huner Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon Consulting Limited (Dillon), on behalf of Hydro One, emailed Algonquins of Ontario and provided a tentative schedule for the amphibian call count surveys and Western Chorus Frog surveys for the Project occurring in April, 2025. Dillon requested confirmation if Algonquins of Ontario had monitors available to attend the field dates.
2025-03-14 12:12	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and indicated they would be in touch over the following weeks with more information, including the Health and Safety Plan for review and sign-off, field methodologies and survey protocols, and general study locations and anticipated timelines for the 2025 field season. Dillon noted that exact dates, times, and locations for meeting would be communicated closer to the field dates, and reminded Algonquins of Ontario that the dates in April 2025 were tentative and pending weather. Dillon stated they would be providing a Monitoring Agreement for their sign-off prior to beginning the fieldwork.
2025-03-14 14:37	Email	Outgoing	Candise Todd Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario to clarify the process for monitoring agreements and rates.
2025-03-14 16:20	Email	Outgoing	AOO Economic Development Office Bmortimer - Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Ontario and provided them with the Notice of Commencement and invitation to the Project Community Open House.
2025-03-24 12:41	Email	Outgoing	Bmortimer - Candise Todd Ethan Huner Jim Meness Nicholle Smith	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed they had the rates from Hydro One and noted that Algonquins of Ontario could let Dillon know if anything needed to be changed. Dillon indicated that they would send Algonquins of Ontario the summary of field surveys including methodology and general timing, the Health and Safety Plan for review and sign-off, and the Indigenous Monitor Agreements the following week. Dillon confirmed they were still planning to go out for amphibian call count on April 10, 2025. Dillon provided details of the location and a map noting the meeting location details would be provided closer to each survey date. Dillon stated they had cc'd the archaeological consultant on the email.
2025-03-25 11:49	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Nicholle Smith	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario outlining planned field surveys for 2025. Surveys were planned for April 10, 17, and 24, focusing on the Western Chorus Frog.
2025-03-26 13:41	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and indicated that the amphibian surveys would be conducted between sunset and midnight and the Western Chorus Frog surveys would be during the day. Dillon noted that the dates may be delayed due to the weather and that they would keep Algonquins of Ontario updated.
2025-04-01 14:59	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	The Algonquins of Ontario emailed Dillon to acknowledge that they would relay the news of the field study postponement to their field monitor.
2025-04-01 15:00	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon, on behalf of Hydro One, emailed the Algonquins of Ontario to inform them of a weather-related postponement of the previously scheduled amphibian surveys on April 10.
2025-04-07 11:34	Email	Outgoing	Candise Todd Ethan Huner Jim Meness Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario to provide an updated field schedule including dates for upcoming surveys.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-04-10 11:00	Email	Incoming	Candise Todd	Alissa Lee (Dillon)	Algonquins of Ontario emailed Dillon and thanked them for the updated field schedule. Algonquins of Ontario requested clarification on the payment process, and the address for liability insurance.
2025-04-10 11:29	Email	Outgoing	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario clarifying the payment process and address information for liability insurance.
2025-04-14 10:24	Email	Outgoing	Candise Todd Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon)	Dillon, on behalf of Hydro One, emailed the Algonquins of Ontario to inform them of changes to the scheduled amphibian surveys due to weather conditions.
2025-04-22 10:06	Email	Incoming	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and provided the signed Monitor Agreement and the proof of Liability Insurance.
2025-04-22 10:24	Email	Outgoing	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario noting the Agreement file that was sent contained the incorrect documents.
2025-04-22 10:27	Email	Incoming	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and apologized for sending the incorrect file.
2025-04-22 10:30	Email	Incoming	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon sending them the correct file for the Monitor Agreement.
2025-04-22 10:34	Email	Outgoing	Candise Todd Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and thanked them for the update and mentioned they will keep an eye out for the WSIB certificate. They confirmed receipt of a representative's acceptance of the Health and Safety Plan and stated that everything else is good to go.
2025-05-30 16:11	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and advised they may have to reschedule to following week's planned field surveys noting the surveys included breeding birds, aquatic habitat assessments, and least bittern surveys. Dillon noted they would confirm the following Monday to give Algonquins of Ontario time to plan.
2025-05-30 16:24	Email	Incoming	Candise Todd	Calvin Blewitt (Dillon)	Algonquins of Ontario emailed Dillon and noted they were off the following Monday but would look for their email.
2025-05-30 17:26	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and indicated they did not have to reschedule and that they would plan for Tuesday, June 3, 2025.
2025-05-31 09:17	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for the information.
2025-05-31 09:45	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and requested confirmation of the location and timing of the field surveys.
2025-06-02 10:30	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and noted they had tried to call them, advising that the surveys planned for June 3, 2025, had to be rescheduled to the morning of June 11, 2025 due to accessibility issues. Dillon stated that the surveys had included breeding bird surveys and a spring botanical survey. Dillon indicated they would be in contact with time and meeting place details.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-06-02 10:43	Email	Outgoing	Candise Todd	Calvin Blewitt (Dillon)	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and noted they saw they were off that day and apologized.
2025-06-02 14:38	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the start time and coordinates for the field survey the following day.
2025-06-03 00:00	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and indicated that the field surveys could not be completed and that they were planning on finishing them the following day, if Algonquins of Ontario wanted to participate. Dillon advised that the surveys would consist of the aquatic habitat assessments and the last set of turtle visual encounter surveys. Dillon noted they would follow up with the time and place.
2025-06-03 00:00	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and requested confirmation that the field survey information was regarding the Project.
2025-06-03 00:00	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the start time and coordinates for the field surveys the following day.
2025-06-03 14:00	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed that the information was regarding the Project.
2025-06-03 14:15	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided details on the field survey location and start time.
2025-06-04 13:37	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and indicated they did not have any monitors available for fieldwork.
2025-06-05 16:47	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the updated tentative survey dates to be completed in June and July, 2025.
2025-06-10 00:00	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed they would attend the field survey and requested the details for the location and time.
2025-06-10 16:31	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and reminded them of the surveys planned for the following day as well as that Friday, June 13, 2025.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-06-10 22:11	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and noted they would follow up with the information regarding the field survey in Ottawa and inquired in Algonquins of Ontario representative was planning on attending the survey the following day in Petawawa. Dillon provided the contact information for the representative that would be on site for the surveys and requested confirmation of Algonquins of Ontario attendance the following day.
2025-06-12 00:00	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One , emailed Algonquins of Ontario and noted they were confirming the details for the field surveys the following day and would confirm.
2025-06-12 00:00	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided details for the following days field surveys. Dillon provided the contact information for the representative conducting the field studies and requested that it be shared with the Algonquins of Ontario monitor.
2025-06-12 00:00	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed they did not have any monitors available for the field surveys the following day.
2025-06-12 08:17	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed their monitors attendance. Algonquins of Ontario requested that Dillon coordinate the field monitors with themselves as they complete the coordinating and invoicing.
2025-06-12 08:36	Email	Outgoing	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and thanked them for confirming. Dillon noted that there was a last minute update to the field survey schedule and that they would make sure to provide sufficient notice in the future.
2025-06-12 10:36	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them. Algonquins of Ontario inquired if the survey planned for the following day was still happening, and if Dillon could provide the timing details.
2025-06-12 11:40	Email	Incoming	Candise Todd Gabriel (algonquins Of Ontario) Pearce Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and advised that their monitor was not available for the surveys the following day but would confirm if there was another monitor available.
2025-06-12 14:10	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and thanked them for confirming.
2025-06-16 00:00	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided some context for the field survey notes that were provided.
2025-06-16 12:45	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the field survey notes and station locations completed in June. Dillon noted they would provide the notes from the most recent surveys as soon as they had all of the field notes compiled.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-06-17 14:52	Email	Outgoing	Candise Todd Finance - Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided updates on the Project field work as there had been some updates to the schedule and planned level of effort.
2025-06-18 10:31	Email	Incoming	Candise Todd Finance - Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and inquired what time the monitor would need to be at the meeting location on Friday, June 20, 2025.
2025-06-18 11:48	Email	Outgoing	Candise Todd Finance - Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and indicated the meeting time and location for the field work on June 20, 2025.
2025-06-18 11:57	Email	Incoming	Candise Todd Finance - Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for the information, noting they had sent the details to the field monitor.
2025-06-19 11:59	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and requested confirmation that everything was ready for the following day's field work.
2025-06-19 12:04	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed the details of the following day's field work and provided contact information for the Dillon representative who would be on site.
2025-06-19 13:25	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed the information.
2025-06-19 14:28	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and requested confirmation whether they would have a monitor available for Monday, June 23, 2025.
2025-06-19 15:23	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and requested confirmation of the remaining planned field work dates.
2025-06-20 13:37	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed that a revised field schedule was sent a few days prior and that they forwarded it again. Dillon indicated they had to cancel the field work on Monday, June 23, 2025, due to the forecasted heat. Dillon noted they would send over the revised schedule for the following week as soon as they could.
2025-06-24 08:02	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario, and confirmed that the tree monitoring field work had been moved to Wednesday and Thursday, June 25 and 26, 2025, respectively. Dillon noted that if Algonquins of Ontario had a monitor that could join them they would send the meeting details.
2025-06-24 15:07	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and noted they were waiting on a monitor to respond and they would get back to Dillon.
2025-07-08 15:37	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed the survey results previously sent were for the Project.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-07-09 10:14	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and requested confirmation of the meeting time for the field work on Friday, July 11, 2025.
2025-07-09 12:45	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and confirmed the meeting time and place for the field work on July 11, 2025.
2025-07-09 13:00	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for confirming the field survey details.
2025-07-09 13:03	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and inquired about the timing for the surveys occurring from July 28 to July 30, 2025.
2025-07-09 13:50	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and noted they would confirm the details with the field staff going out on the requested dates and get back to them.
2025-07-09 13:55	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them.
2025-07-10 13:25	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and asked if their monitor would be attending the fieldwork on July 11, 2025.
2025-07-10 13:52	Email	Incoming	Candise Todd	Calvin Blewitt (Dillon)	Algonquins of Ontario emailed Dillon and confirmed their monitor would attend the planned fieldwork for July 11, 2025, and towards the end of July 2025.
2025-07-10 13:56	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and thanked them.
2025-07-14 09:44	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the Field Level Hazard Assessment that was signed by the Algonquins of Ontario representative during fieldwork July 11, 2025.
2025-07-14 10:12	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for providing the Field Level Hazard Assessment that the monitor had signed off for the field work.
2025-07-21 14:52	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and reminded them about the upcoming fieldwork surveys for the Project scheduled for July 28-30, 2025. Dillon noted that the surveys will complete the Ecological Land Classification, Wetland Assessment, and Tree Inventory and invited them to join if they had someone available.
2025-07-22 10:11	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed they would check in with their monitor to see if they had availability to join the fieldwork. Algonquins of Ontario requested to be updated once the details had been worked out.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-07-24 11:47	Email	Incoming	Ashley (algonquins Of Ontario) Keller Candise Todd Finance - Josee Rochon	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for their patience while resolving an issue with an invoice. Algonquins of Ontario clarified that the invoice should reflect May 1 instead of May 13 due to a typo and noted they would send the updated invoice for processing.
2025-07-24 14:09	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and informed them that the field schedule had been moved to July 30, July 31, and August 1, 2025 due to a heatwave and possible thunderstorms. Dillon inquired if a monitor would be available to attend on those dates.
2025-07-24 14:31	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and noted they were waiting for confirmation if the monitor could attend the fieldwork based on the date changes. Algonquins of Ontario inquired if there was a start time and meeting location.
2025-07-25 08:55	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and informed them that the fieldwork would start at 8 AM and provided a location for convenient parking and noted they could meet there.
2025-07-25 09:05	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and informed them that the meeting location had been changed to the trailhead at the specified coordinates.
2025-07-25 13:01	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and confirmed the contact information for the field monitor.
2025-07-25 13:10	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided their contact information.
2025-07-25 13:26	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them.
2025-07-29 11:34	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and requested confirmation of the field monitor attendance.
2025-07-29 11:50	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed the field monitor would be going out July 30, 2025 - August 1, 2025.
2025-07-29 11:57	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith Steven Greidanus	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and thanked them for confirming the field monitor.
2025-08-01 13:33	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided the field level hazard assessments from July 30 to August 1.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-08-05 08:46	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and thanked them for providing the field level hazard assessments.
2025-08-13 10:59	Email	Outgoing	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Ontario and provided a detailed summary of findings from the fieldwork conducted from July 30 to August 1, 2025.
2025-08-13 15:09	Email	Incoming	Candise Todd Josee Rochon Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Ontario emailed Dillon and confirmed receipt of daily pictures from a representative regarding the findings, including the discovery of wild rice, which was of particular note. Algonquins of Ontario thanked Dillon and noted they were missing the tailgate forms for the July 30 and August 1, 2025 fieldwork dates.
2025-08-25 16:21	Email	Outgoing	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and provided the Stage 1 Archaeological Assessment and Archaeological Overview Assessment and requested feedback.
2025-08-26 13:11	Email	Incoming	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One to indicate that they will provide comments and feedback on Archeological Assessment Report within the next 2 weeks.
2025-09-23 14:08	Email	Incoming	Candise Todd Engagement - Jeff Dillane Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and provided their availability for upcoming archaeological work
2025-09-26 13:32	Email	Outgoing	Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and followed up regarding their comments or concerns on the Stage 1 AA and the Archaeological Overview Assessment for the Project.
2025-10-03 14:25	Email	Outgoing	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Ontario and followed up with them for their comments on the Stage 1 AA report.
2025-10-06 09:27	Email	Incoming	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Hydro One regarding the Stage 1 AA and the Archaeological Overview Assessment for the Project, supporting areas identified for Stage 2 testing and supporting the report recommendations. Algonquins of Ontario recommended including additional detail on influences of relict shoreline areas on archaeological potential within the study areas. Algonquins of Ontario requested to be kept up-to-date of ongoing archaeological work.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-10-06 09:40	Email	Outgoing	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Hydro One to indicate that they were happy with the content of the Stage 1 Archaeological report and the Archaeological Overview Assessments. However, Algonquins of Ontario requested that future reports include more detail about the influences of relict shoreline areas on archaeological potential in study areas.
2025-10-08 10:08	Email	Outgoing	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Ontario and indicated that the fieldwork for the Project was pushed to November 3, 2025 due to ongoing excavations and to align with the pedestrian survey field preparation. Matrix Heritage noted the shift would allow all assessments to be conducted concurrently. Matrix Heritage acknowledged multiple schedule changes and committed to emailing separate schedule updates for other projects.
2025-10-08 10:27	Email	Incoming	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and requested the tailgate forms so they could update their files.
2025-10-15 15:01	Email	Outgoing	Jean-Guy Whiteduck Samantha Tenasco	Christopher Grol Erika Dawson	Hydro One emailed Kitigan Zibi Anishinabeg and provided the Notice of Completion of draft ESR for the Project. Hydro One notified Kitigan Zibi Anishinabeg of the completion of the draft ESR for the Project and noted it would be available starting October 20, 2025 for 30 days for review. Hydro One invited questions or concerns.
2025-10-15 15:01	Email	Outgoing	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and provided the Notice of Completion of draft ESR for the Project. Hydro One notified Algonquins of Pikwakanagan of the completion of the draft ESR and noted it would be available starting October 20, 2025 for 30 days to review. Hydro One offered to provide capacity to support Algonquins of Ontario's review of the draft ESR.
2025-10-16 13:52	Email	Incoming	AOO Economic Development Office Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and acknowledged receipt of the Notice of Completion of the draft ESR for the Project. Algonquins of Ontario thanked Hydro One for the offer of capacity funding to support their review and noted they would discuss internally in the coming days. Algonquins of Ontario noted they would follow up the following week.
2025-10-27 14:01	Email	Incoming	Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and inquired regarding capacity funding to support their review of the draft ESR. Algonquins of Ontario provided an outline of their typical invoicing for report reviews.
2025-10-29 15:59	Email	Outgoing	Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and indicated it was important they have the capacity needed to meaningfully review and provide feedback on the draft ESR. Hydro One inquired if Algonquins of Ontario could provide their anticipated costs for the review.
2025-10-30 15:12	Email	Outgoing	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Ontario and confirmed the start date and details for the Stage 2 AA fieldwork on November 5, 2025 for the Project.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-10-30 15:22	Email	Incoming	Candise Todd Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and provided their estimated costs to review the draft ESR.
2025-10-30 15:32	Email	Outgoing	AOO Economic Development Office Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and indicated they would provide the capacity funding requested to review the draft ESR. Hydro One noted that they were extending the review period for Algonquins of Ontario to December 2, 2025.
2025-10-30 15:40	Email	Incoming	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and indicated they were waiting for a response from on of their monitors and would send their contact information once confirmed.
2025-11-04 13:08	Email	Outgoing	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Ontario and indicated that they were calling a rain day for the planned fieldwork and confirmed that the assessment would take place November 6, 2025 instead.
2025-11-07 00:00	Phone	Outgoing	Candise Todd	Erika Dawson	Hydro One called the Algonquins of Ontario Archaeology Coordinator after an encounter during a Stage 2 archaeological survey.
2025-11-07 14:20	Email	Outgoing	Candise Todd Jim Meness	Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Ontario and noted they wanted to reach out and check in on the field monitors following an encounter during the Stage 2 archaeological fieldwork that morning. Hydro One indicated to reach out of there was any support that Hydro One could offer the monitor.
2025-11-10 14:41	Email	Incoming	Candise Todd Jim Meness	Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Hydro One and thanked them for checking in on the monitor and offering support.
2025-11-20 14:26	Email	Outgoing	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Ontario and provided the details, including the meeting point and start time, for the planned test pitting portion of the Stage 2 archaeological fieldwork. Matrix Heritage indicated there were three small sections left to test pit.
2025-11-20 15:11	Email	Incoming	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and confirmed their monitor, and inquired if they thought the three remaining sections could be completed in one day.
2025-11-20 15:15	Email	Outgoing	Candise Todd Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Ontario and indicated they thought the three remaining sections to be test pitted for the Stage 2 AA could be completed in one day based on how quickly they worked through the other areas of the corridor.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-11-20 15:43	Email	Incoming	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and agreed the fieldwork was moving quickly.
2025-11-24 09:04	Email	Incoming	Candise Todd Engagement - Jeff Dillane Jim Meness Josee Rochon Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Ontario emailed Matrix Heritage and thanked them for the updates to the Stage 2 AA fieldwork.
2025-11-25 15:00	Email	Outgoing	Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness Josee Rochon	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and reminded them that their review of the draft ESR is due on December 2, 2025. Hydro One also inquired about logistics of the capacity funding for Algonquins of Ontario's review of the draft ESR.
2025-12-18 10:54	Email	Outgoing	AOO Economic Development Office Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness Josee Rochon	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and followed up on Algonquins of Ontario's review of the draft ESR, and the logistics of the capacity funding for Algonquins of Ontario's review of the draft ESR.
2026-01-29 12:16	Email	Outgoing	AOO Economic Development Office Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness Josee Rochon	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario and thanked them for sharing their feedback on the draft ESR. Hydro One indicated they were reviewing Algonquins of Ontario's comments and would send back some responses. Hydro One advised they would keep Algonquins of Ontario updated on the ESR timelines.
2026-02-05 08:38	Email	Incoming	AOO Economic Development Office Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness Josee Rochon	Christopher Grol Erika Dawson	Algonquins of Ontario emailed Hydro One and provided the completed forms.
2026-02-05 11:46	Email	Outgoing	AOO Economic Development Office Consultation Office (Algonquins of Ontario) Ethan Huner Jim Meness Josee Rochon	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Ontario (AOO) to provide them with their responses to AOO's comments on the draft Environmental Study Report.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2024-08-16 13:35	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and informed them that a Class Environmental Assessment (EA) for a new 115 kV transmission line in Ottawa, with plans to convert an existing line to 230 kV, had been initiated. Hydro One invited Algonquins of Pikwakanagan to participate in the field studies scheduled for spring/summer 2025. Hydro One offered to meet with Algonquins of Pikwakanagan to discuss the Project and their broader engagement.
2024-08-27 08:49	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Hydro One about scheduling a meeting to discuss the proposed Project.
2024-08-27 16:45	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed the Algonquins of Pikwakanagan and noted they were taking the potential dates back to the Project team and would get back to them as soon as possible. Hydro One inquired whether the Algonquins of Pikwakanagan First Nation would like the meeting to be specific to the Project or a broader meeting encompassing the overall relationship with Hydro One.
2024-08-28 07:50	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Hydro One and thanked them for taking the dates back to the Hydro One team. The Algonquins of Pikwakanagan indicated their preference for the meeting to be Project oriented and that they could schedule a broader relationship meeting at a later time.
2024-08-28 10:48	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed the Algonquins of Pikwakanagan and confirmed the meeting date and time. Hydro One provided a tentative meeting agenda and the list of attendees from Hydro One. Hydro One offered to provide a copy of the slides to the First Nation after the meeting.
2024-09-03 10:00	Meeting		Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson Jeff Hankin	Hydro One and Algonquins of Pikwakanagan had a virtual meeting to discuss the Project.
2024-10-11 15:11	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Samantha Galbraith Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided a tentative agenda for them to comment on for the meeting the following week.
2024-10-16 08:25	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Samantha Galbraith Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and requested clarification on some of the agenda items ahead of the meeting on October 17, 2024.
2024-10-16 09:50	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Samantha Galbraith Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided clarification on the agenda items.
2024-10-16 14:42	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Samantha Galbraith Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and thanked them for clarifying. Algonquins of Pikwakanagan noted they were looking forward to the meeting planned with Hydro One the following day. Algonquins of Pikwakanagan provided their contact information in case Hydro One needed to contact them.
2024-10-17 13:00	In-Person Meeting		Amanda Two-Axe Kohoko Korey Kauffeldt Samantha Galbraith Valerie Taggart	Christopher Grol Erika Dawson	Hydro One met with the Algonquins of Pikwakanagan to discuss activities in Algonquin territory, including the Project.
2024-11-13 14:35	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and requested a capacity funding schedule for their review and consideration. Hydro One offered to arrange a phone call to discuss.
2024-11-18 13:22	Email	Incoming	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided a draft capacity budget with comments and tracked changes.
2024-11-18 14:26	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and acknowledged receipt of the comments on the Capacity Funding Agreement. Hydro One proposed to arrange a virtual meeting to discuss the details before finalizing the agreement. Hydro One noted their availability the week of December 16, 2024, or January 13, 2025. Hydro One indicated that the Project will have minimal updates until the end of January 2025.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2024-12-10 09:25	Email	Incoming	Alanna Hein Amanda Two-Axe Kohoko Bmortimer - Émilie Girard-ruel Greg Sarazin Marion Gale Mervin "Merv" Sarazin Monica Maika	Alissa Lee (Dillon) Jeff Hankin	The NCC emailed Algonquins of Pikwakanagan to advise them about upcoming archaeological work for the Project.
2024-12-10 16:35	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed the meeting date and time and noted they would send out a calendar invite.
2025-01-20 15:22	Email	Incoming	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and indicated their preference to keep the focus of the meeting on the Project. Algonquins of Pikwakanagan noted they looked forward to the meeting the following day.
2025-01-21 00:00	Meeting		Algonquins of Pikwakanagan Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One met with Algonquins of Pikwakanagan and discussed capacity funding for the Project.
2025-01-22 15:29	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and requested invoices for the Project.
2025-01-30 10:52	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the most recent copy of the Capacity Funding Agreement, including the Letter Agreement for review. Hydro One noted that the Project will occur within an existing transmission line corridor and easement, with no significant modifications to Crown Lands. Hydro One proposed adjustments to the capacity budget, and invited further discussion on their recommendations.
2025-03-07 13:03	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Doug Kutschke Juhui H Korey Kauffeldt Selena Roesler	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed the invoices were received. Hydro One noted they would circle back to confirm the payment was sent.
2025-03-10 10:46	Email	Outgoing	Korey Kauffeldt Philipmcknight -	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan and invited them to the public community open house and to connect them with the consultants leading the field monitoring in the spring.
2025-03-10 13:54	Email	Incoming	Korey Kauffeldt Philipmcknight -	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan First Nation emailed Hydro One and requested details on the upcoming Project community open house to inform their leadership and assess attendance.
2025-03-11 16:05	Email	Outgoing	Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the most recent version of the Project Capacity Funding Agreement and indicated that the agreement did not include guardian participation fees, noting that those would be invoiced directly to the consultant, who would provide payment.
2025-03-14 16:20	Email	Outgoing	Korey Kauffeldt Philipmcknight -	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan and provided them with the Notice of Commencement and invitation to the Project community open house.
2025-03-25 11:51	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan and provided a document outlining the planned field surveys for 2025, noting that they would aim to have anticipated field dates shared at least two weeks notice. Dillon provided the Project Health and Safety Plan for review and sign-off, stating that monitors would have to review the document and sign-off prior to joining Dillon staff in the field. Dillon provided the planned field dates for amphibian call count surveys and Western Chorus Frog surveys. Dillon reminded Algonquins of Pikwakanagan that they require a signed Monitor Agreement in place prior to field work and that they had sent it in an email the previous day. Dillon noted that due to weather uncertainty there may be some late notice changes to the schedule.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-03-27 11:19	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan and provided the revised agreement. Dillon noted to reach out with any questions should they have any.
2025-04-01 14:57	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan to inform them of the postponement of the field survey due to inclement weather.
2025-04-07 11:32	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan to provide an updated field schedule.
2025-04-09 00:00	In-Person Meeting	Outgoing	Korey Kauffeldt	Christopher Grol	Hydro One met with the Algonquins of Pikwakanagan First Nation to discuss capacity funding for the Orleans Line Reinforcement Project, and shared general updates regarding the D6 Line Relocation Project. The discussions covered key dates, capacity funding agreements, and field monitoring. The Algonquins raised concerns about distribution service in their community and requested Hydro One's investigation and support.
2025-04-11 13:39	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan to inform them that they would continue to keep them updated with field reports and summaries as requested.
2025-04-11 13:54	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and Dillon, noting that their field monitors are in training until May 1 and requested interim field reports.
2025-04-14 10:31	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan to provide an updated field schedule and to indicate that some dates have been postponed due to weather conditions.
2025-04-15 08:48	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Dillon to discuss the monitoring agreement and preferred monitor numbers per survey.
2025-04-15 10:34	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to confirm their standard number of field monitors required for each field survey.
2025-04-15 11:04	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakangan emailed Hydro One and Dillon to share the remaining documentation for field participation and to request timeline expectations for the updated Capacity Funding Agreement from Hydro One.
2025-04-25 10:25	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to provide a tentative schedule of planned field surveys in May 2025.
2025-04-30 00:00	Email	Outgoing	Amanda Two-Axe Kohoko Britney Sarazin Jeff Dillane Katy Dimmer	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and indicated they had been retained by Dillon, on behalf of Hydro One, to undertake a Stage 1 Archaeological Assessment and an Archaeological Overview Assessment for the Project. Matrix Heritage advised they would be conducting a site visit in the following weeks and inquired if Algonquins of Pikwakanagan was interested in sending a monitor to attend the site visit.
2025-04-30 15:44	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to share summaries of field surveys and figures indicating the locations of the survey stations.
2025-04-30 15:53	Email	Incoming	Amanda Two-Axe Kohoko Britney Sarazin Jeff Dillane Katy Dimmer	Alissa Lee (Dillon) Christopher Grol Jeff Hankin	Algonquins of Pikwakanagan emailed Matrix Heritage and confirmed their interest in participating in the archaeological site visit, and provided their availability. Algonquins of Pikwakanagan provided questions to Matrix Heritage regarding the details for the site visit requirements.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-05-01 05:16	Email	Incoming	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Dillon to provide an update regarding the delays affecting their monitoring program, indicating that they are still unable to participate in field monitoring due to internal rescoping.
2025-05-02 14:31	Email	Outgoing	Amanda Two-Axe Kohoko Britney Sarazin Jeff Dillane Katy Dimmer	Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and responded to their question and provided details for the upcoming archaeological field work.
2025-05-02 14:41	Email	Incoming	Amanda Two-Axe Kohoko Andrea Jackson Archreq - Archschool - Engagement - Jeff Dillane Karen Brethour Katy Dimmer Nadine Kopp PJ (Patrick John) Leroux	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Hydro One and confirmed their representative for the field work, providing a direct phone number for contact. Algonquins of Pikwakanagan requested that any urgent changes of plans be communicated directly to the representative and also provided via email.
2025-05-02 16:04	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to inform them of the rescheduling of the upcoming field survey due to anticipated weather conditions.
2025-05-02 16:18	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to inform them of the new scheduled date for the upcoming field survey.
2025-05-06 12:00	Email	Incoming	Amanda Two-Axe Kohoko Amber Hein Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and Dillon to provide an updated capacity funding agreement and monitoring agreement.
2025-05-06 12:40	Email	Incoming	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Doug Kutschke Juhui H Korey Kauffeldt Selena Roesler	Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and requested an update on an invoice.
2025-05-06 14:05	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to share summaries of surveys completed on May 1, 2025.
2025-05-07 12:59	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Doug Kutschke Juhui H Korey Kauffeldt Selena Roesler	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed receipt of the invoices and stated someone would follow up with payment details.
2025-05-09 10:24	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan and noted they were not able to complete the surveys the previous day and the remaining surveys had been rescheduled to Tuesday, May 13, 2025 and included Western Chorus Frog and Turtle Basking surveys.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-05-13 14:42	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One to discuss the updated Capacity Funding Agreement and to discuss the an invitation for a project meeting.
2025-05-14 11:03	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Dillon and Hydro One to discuss details of the Monitoring Agreement including projected budget cap.
2025-05-14 13:59	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to provide an update on the surveys completed on May 8 and 13, 2025.
2025-05-14 16:00	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and requested to have a meeting regarding the Project, including a discussion about invoicing and the Capacity of Funding Agreement.
2025-05-15 09:56	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One to seek clarification regarding the invoicing process and to address recent comments included in the latest capacity funding agreement.
2025-05-15 11:18	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan and indicated the turtle visual encounter and amphibian surveys planned for May 22, 2025 had been moved to May 21, 2025. Dillon provided an outline for the remaining surveys for May 2025. Dillon stated they would send an email with the planned June 2025 surveys soon.
2025-05-15 17:22	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan to request a meeting to discuss the Capacity Funding Agreement and to encourage them to continue to work with Dillon for the field work.
2025-05-20 14:08	Email	Incoming	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided their availability to meet. Algonquins of Pikwakanagan indicated that due to ongoing structural changes to their Guardian Program they had decided that they would not proceed with the participation in the Project's field surveys, noting they included Dillon on the email for their information. Algonquins of Pikwakanagan stated that they would send a revised version of the Project Capacity Funding Agreement with additional comments.
2025-05-21 10:42	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and thanked them for their support while they worked through the process. Algonquins of Pikwakanagan provided comments on the Capacity Funding Agreement. Algonquins of Pikwakanagan noted they were meeting internally on some of the details of the Capacity Funding Agreement and requested comment responses back from Hydro One.
2025-05-28 09:21	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and followed up regarding their availability to meet.
2025-05-28 13:37	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided their availability for a meeting.
2025-05-28 19:25	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Alissa Lee (Dillon) Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided their availability to meet.
2025-05-29 15:50	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwkanagan and thanked them for providing their availability and proposed a meeting date and time, noting once confirmed they would send a virtual meeting invite.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-05-29 21:12	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and confirmed their availability to meet and requested confirmation from their colleague if the proposed time worked for them.
2025-05-30 11:37	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan and provided the survey results and mapping from the work Dillon completed on May 21 and 27, 2025.
2025-05-30 15:50	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwkanagan and thanked them for confirming their availability and noted they would send a virtual meeting invite shortly.
2025-06-03 00:00	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and inquired if they could reschedule the meeting as they would have to take the call from their car at that time.
2025-06-03 14:38	Email	Incoming	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and requested to postpone the meeting due to scheduling conflicts and that Algonquins of Pikwakanagan was still waiting for information related to the invoice breakdowns.
2025-06-03 15:49	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and noted they understood and were always prepared to meet the Algonquins of Pikwakanagan's scheduling needs. Hydro One proposed to have separate meetings regarding the Capacity Funding Agreement and the invoicing issues. Hydro One provided proposed times to meet regarding the Capacity Funding Agreement.
2025-06-04 00:00	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and confirmed their availability to meet and noted they would still like to attend the invoicing meeting if their colleague would like the support.
2025-06-04 21:12	Email	Incoming	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided an update on the invoices.
2025-06-05 16:45	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed their preference for a meeting time, noting they would send an invite out shortly.
2025-06-05 16:50	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and thanked them for their update on the invoices. Hydro One stated they thought it would be beneficial for the Algonquins of Pikwakanagan to attend the meeting on Monday, June 9, 2025 and noted they would send an invite out shortly.
2025-06-09 13:00	Meeting	Outgoing	Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One held a meeting with the Algonquins of Pikwakanagan First Nation to discuss invoicing and purchase orders associated with project engagement activities. The discussions included details and inquiries regarding the Capacity Funding Agreements for the Orleans Area Reinforcement Project and the D6 Line Relocation Project.
2025-06-09 14:00	Email	Outgoing	Amanda Two-Axe Kohoko Chris Mcknight Donna Mcknight Juhui H Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed an invitation for a meeting with Algonquins of Pikwakanagan to discuss the Capacity Funding Agreement and invoicing practices

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-06-11 17:52	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided meeting notes from a meeting held on June 9, 2025. Hydro One provided details of planned capacity funding.
2025-06-11 19:57	Email	Incoming	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and thanked them for sending the meeting minutes. Algonquins of Pikwakanagan noted they would try to amend the invoice the following evening.
2025-06-16 15:35	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan indicating that the newest Capacity Funding Agreement would be sent to them by June 30, 2025.
2025-06-16 15:35	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided details on the Capacity Funding Agreement for the Project.
2025-06-17 15:05	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan to provide survey field notes for the field surveys conducted on June 3 and 4, 2025.
2025-06-24 09:12	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Doug Kutschke Juhui H Korey Kauffeldt Selena Roesler	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and thanked them for the update. Hydro One indicated that the cheques that had been discussed the previous week had been sent.
2025-07-08 15:39	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon, on behalf of Hydro One, emailed Algonquins of Pikwakanagan and provided field survey results for the Project.
2025-07-08 16:59	Email	Outgoing	Amanda Two-Axe Kohoko Chrismcknight Bs Donna Mcknight Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the Capacity Funding Agreement which incorporated updates from their most recent meeting. Hydro One indicated they would be sending the Project Stage 1 Archaeological Assessment (AA) in a separate email.
2025-07-09 14:40	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt Valerie Taggart	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the Stage 1 AA for the Project. Hydro One noted to let them know if Algonquins of Pikwakanagan had any comments or concerns with the report.
2025-07-17 11:06	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided comments on the Capacity Funding Agreements.
2025-07-17 15:37	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and requested some clarifications on Algonquins of Pikwakanagan's comments on the Capacity Funding Agreements.
2025-07-22 14:09	Email	Incoming	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Dillon, and requested the creation of two new email chains to separate discussions for the Project surveys and the D6 project, as there was some overlap.
2025-07-23 17:00	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided a revised Capacity Funding Agreement.
2025-07-24 14:47	Email	Incoming	Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and confirmed they would send the Capacity Funding Agreement for signature.
2025-07-24 16:19	Email	Outgoing	Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and noted they were looking forward to receiving the signed copy of the Capacity Funding Agreement for the Project and confirmed they would send the executed finalized copy, once received.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-07-25 11:02	Email	Incoming	Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One to share their copy of the signed Capacity Funding Agreement and requested Hydro One send it back once they had signed.
2025-08-01 14:39	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Juhui H Selena Roesler	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and reviewed invoicing for the Project.
2025-08-06 13:03	Email	Outgoing	Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the executed Capacity Funding Agreement for the Project.
2025-08-11 12:09	Email	Incoming	Amanda Two-Axe Kohoko Donna Mcknight Kassandra Tiegs Korey Kauffeldt Samantha Galbraith	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and requested that they resend the executed Capacity Funding Agreement for their records.
2025-08-11 12:40	Email	Outgoing	Amanda Two-Axe Kohoko Donna Mcknight Kassandra Tiegs Korey Kauffeldt Samantha Galbraith	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the executed Capacity Funding Agreement.
2025-08-13 11:05	Email	Outgoing	Korey Kauffeldt Nicholle Smith Valerie Taggart	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Christopher Grol Erika Dawson	Dillon emailed Algonquins of Pikwakanagan to provide a summary of findings from field work completed between July 30 and August 1, 2025. Dillon noted that this marks the completion of ecology field work for the project, including tree inventory, Ecological Land Classification, and surveys for SAR habitat, Significant Wildlife Habitat, and botanical assessments. Dillon indicated the surveys identified Red Maple and Poplar swamps, deciduous forests, meadow marshes, thickets, and potential habitats for Eastern-wood pewee, Amphibian Breeding, SAR bats, and Wood Thrush. Dillon advised that notable plant findings included Cattail Sedge, rare in Ontario, and Wild Rice, culturally significant to Algonquin communities. Dillon invited questions and offered to discuss the findings further.
2025-08-25 15:14	Email	Incoming	Amanda Two-Axe Kohoko Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One and provided a letter of their comments on the Stage 1 AA for the Project.
2025-08-25 15:53	Email	Outgoing	Amanda Two-Axe Kohoko Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed there would be an Environmental Study Report for the Project, noting they would share it with Algonquins of Pikwakanagan as soon as they have the draft.
2025-09-15 11:56	Email	Outgoing	Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and requested to confirm new Anishinabe Odjibikan contacts for archaeology on Hydro One projects.
2025-09-23 14:34	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan and advised they had retained Matrix Heritage consultants to conduct a Stage 2 AA and Archaeological Impact Assessment for the Project. Hydro One indicated that Matrix Heritage had reached out to Algonquins of Pikwakanagan directly to coordinate the monitoring. Hydro One noted that Algonquins of Pikwakanagan will be invoicing Matrix Heritage and or Dillon directly for monitoring.
2025-10-01 14:30	Email	Incoming	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Greg Sarazin Jeff Dillane Karen Brethour Katy Dimmer Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage, retained by Dillon, emailed Algonquins of Pikwakanagan and notified of a delay in the fieldwork start date to the week of October 14th, 2025. Matrix Heritage attached the intake form for the Project's fieldwork component and noted that test pitting will begin on October 14th, 2025 with field walking anticipated for late October or early November, 2025.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-10-02 09:32	Email	Incoming	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Matrix Heritage, retained by Dillon, and confirmed that a team member would attend the site and requested that meeting time and location details be communicated via text to the team member and via email to them if not determined by the end of the day the following day.
2025-10-02 09:38	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan and Matrix Heritage to include them in a thread for awareness, noting their role as the lead consultant for the project.
2025-10-02 13:26	Text	Incoming	Algonquins of Pikwakanagan Korey Kauffeldt	Christopher Grol	Algonquins of Pikwakanagan First Nation texted Hydro One to discuss ongoing projects in their territory.
2025-10-02 14:00	Text	Outgoing	Korey Kauffeldt	Christopher Grol	Hydro One texted Algonquins of Pikwakanagan to propose a call, in response to a request from Algonquins of Pikwakanagan for a discussion about ongoing projects in their territory.
2025-10-02 14:05	Text	Incoming	Algonquins of Pikwakanagan Korey Kauffeldt	Christopher Grol	Algonquins of Pikwakanagan First Nation texted Hydro One and requested a meeting, proposing a time of 10:00am-10:30am on Friday, October 3, 2025.
2025-10-02 14:10	Text	Outgoing	Korey Kauffeldt	Christopher Grol	Hydro One texted Algonquins of Pikwakanagan and agreed to a meeting on Friday, October 3, 2025.
2025-10-03 00:00	Meeting	Incoming	Algonquins of Pikwakanagan Korey Kauffeldt	Christopher Grol	Hydro One conducted a virtual meeting with the Algonquins of Pikwakanagan First Nation to discuss ongoing collaboration, including connection activities, issues management, and updates on the D6 Line Relocation and Orleans Area Reinforcement Project; highlighting important dates, milestones, and upcoming goals such as signing Capacity Funding Agreements.
2025-10-08 10:07	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and indicated that the fieldwork for the Project was pushed to November 3, 2025 due to ongoing excavations and to align with the pedestrian survey field preparation. Matrix Heritage noted the shift would allow all assessments to be conducted concurrently. Matrix Heritage acknowledged multiple schedule changes and committed to emailing separate schedule updates for other projects.
2025-10-08 10:17	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan First Nation to share an update regarding archaeological monitoring schedules and committed to ensure that the appropriate point of contact is included in the future.
2025-10-09 09:06	Email	Incoming	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Monica Maika	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Matrix and thanked them for the update.
2025-10-14 14:21	Email	Incoming	Korey Kauffeldt	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One to confirm appropriate contacts for archaeology.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-10-14 14:54	Email	Outgoing	Korey Kauffeldt	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and confirmed that the appropriate archaeology contact has been included in communications.
2025-10-15 15:01	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided the Notice of Completion of draft Environmental Study Report (ESR) for the Project. Hydro One notified Algonquins of Pikwakanagan of the completion of the draft ESR and noted it would be available starting October 20, 2025 for 30 days for review. Hydro One offered to meet with Algonquins of Pikwakanagan to discuss their review or any questions they should have.
2025-10-30 15:18	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Monica Maika Rj Farrell	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and confirmed the start date and details for the Stage 2 AA fieldwork on November 5, 2025 for the Project.
2025-10-30 15:46	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan informing them of an extension to the draft ESR review period to December 2, 2025, noting Hydro One recognizes it is an important milestone and that it takes time to complete a fulsome review.
2025-11-04 13:10	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Rj Farrell	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and indicated that they were calling a rain day for the planned fieldwork and confirmed that the assessment would take place November 6, 2025 instead.
2025-11-06 11:39	Email	Incoming	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Rj Farrell	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Matrix Heritage and thanked them for the update and provided updated contact information for the new Algonquins of Pikwakanagan Archaeological Administrator and introduced the new representative. Algonquins of Pikwakanagan indicated their monitor would not be available November 10-11, 2025 but would join the Matrix Heritage team again following those days.
2025-11-07 00:00	Phone	Outgoing	Korey Kauffeldt	Erika Dawson	Hydro One called the Algonquins of Pikwakanagan First Nation Archaeological Coordinator representative to discuss an encounter during an archaeological survey.
2025-11-07 14:27	Email	Outgoing	Archreq - Archschool - Korey Kauffeldt Rj Farrell	Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan and noted they wanted to reach out and check in on the field monitors following an encounter during the Stage 2 archaeological fieldwork that morning. Hydro One indicated to reach out of there was any support that Hydro One could offer them.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2025-11-20 14:43	Email	Incoming	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Rj Farrell	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan emailed Matrix Heritage and thanked them for sharing the Stage 2 archaeological fieldwork details.
2025-11-23 11:11	Email	Outgoing	Amanda Two-Axe Kohoko Archreq - Archschool - Britney Sarazin Engagement - Jeff Dillane Karen Brethour Katy Dimmer Korey Kauffeldt Rj Farrell	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Algonquins of Pikwakanagan and informed them of a delay in the Stage 2 AA fieldwork due to inclement weather.
2025-11-25 15:03	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson	Hydro One emailed Algonquins of Pikwakanagan and provided a reminder of the draft Environmental Study Report review period, ending December 2, 2025.
2025-11-27 09:00	Email	Incoming	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson	Algonquins of Pikwakanagan emailed Hydro One requesting an extension of the draft Environmental Study Report review period from December 2, 2025 to December 15, 2025.
2025-12-02 10:48	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan First Nation to provide an extension to the Environmental Study Report review period. Hydro One noted that the review period is now extended to December 15, 2025.
2025-12-12 13:52	Email	Incoming	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson Jeff Hankin	Algonquins of Pikwakanagan First Nation emailed Hydro One and provided their comments on the draft ESR for the Project.
2026-01-19 16:12	Email	Outgoing	Korey Kauffeldt Rj Farrell	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Algonquins of Pikwakanagan First Nation (AOPFN) to provide their responses to AOPFN's comments on the Draft Environmental Study Report (ESR). Hydro One also noted the upcoming release of the Environmental Effects Evaluation and the Environmental Management Plan.

Date/time	Type of communication	Origin	Stakeholders (short description)	Staff members	Summary
2024-12-10 09:25	Email	Incoming	Anita Tenasco Bmortimer - Debbie Whiteduck Émilie Girard-ruel Jean Guy Whiteduck Jean-Guy Whiteduck Marion Gale Monica Maika VTenasco	Alissa Lee (Dillon) Jeff Hankin	NCC emailed Kitigan Zibi Anishinabeg and provided an introduction to the Project, and informed them that a Class EA for a new 115 kV transmission line in Ottawa, with plans to convert an existing line to 230 kV, had been initiated. The NCC provided project details, including the proposed location. The NCC noted that as part of the Class EA, Matrix Heritage was going to undertake an AA and an Archaeological Overview Assessment for the Project.
2025-01-09 00:00	Phone		Jean-Guy Whiteduck	Erika Dawson	Hydro One contacted KZA to inform them about a project notice and offered a virtual meeting to discuss the project in detail and gauge their interest.
2025-01-09 16:25	Email	Outgoing	Jean-Guy Whiteduck Samantha Tenasco	Christopher Grol Erika Dawson	Hydro One emailed the Chief of Kitigan Zibi Anishinabeg and informed them that a Class EA for a new 115 kV transmission line in Ottawa, with plans to convert an existing line to 230 kV, had been initiated. Hydro One welcomed Kitigan Zibi Anishinabeg to participate in spring and summer field studies and offered to meet for a briefing.
2025-09-15 11:50	Email	Outgoing	Anishinabeodjibikan - Jean-Guy Whiteduck Jenniferkookum - Monica Maika Samantha Tenasco	Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed Kitigan Zibi Anishinabeg and provided the Stage 1 AA and Archaeological Overview Assessment for review.
2025-09-23 14:03	Email	Incoming	Anishinabeodjibikan - Engagement - Jeff Dillane Jenniferkookum - Monica Maika Nadine Kopp Samantha Tenasco	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage, on behalf of Dillon and Hydro One, emailed Kitigan Zibi Anishinabeg and indicated they had been retained to undertake a Stage 2 Archaeological Assessment (AA) and an Archaeological Impact Assessment for the Project. Matrix Heritage provided the coordinates of the study location and noted that they had determined that the planned activities will take place within Kitigan Zibi Anishinabeg's traditional territory and provided a map showing the location. Matrix Heritage advised that the site requires both Stage 2 AA and Archaeological Impact Assessment field assessments in the form of both shovel test pit survey and pedestrian survey of ploughed field. Matrix Heritage provided an anticipated schedule for the work. Matrix Heritage requested, if interested, that Kitigan Zibi Anishinabeg provide any comments and/or concerns with the proposed archaeological project including the level of interest in further engagement on the Project, the best methods to communicate and engage, and any preliminary comments or concerns that they may have. Matrix Heritage stated that Kitigan Zibi Anishinabeg's input and questions are valued and that they hope to learn how to assist the Indigenous communities through the process to address their concerns.
2025-10-08 10:09	Email	Outgoing	Anishinabeodjibikan - Engagement - Jeff Dillane Jenniferkookum - Monica Maika Nadine Kopp Samantha Tenasco	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Kitigan Zibi Anishinabeg and indicated that the fieldwork for the Project was pushed to November 3, 2025 due to ongoing excavations and to align with the pedestrian survey field preparation. Matrix Heritage noted the shift would allow all assessments to be conducted concurrently.
2025-10-15 15:01	Email	Outgoing	Jean-Guy Whiteduck Samantha Tenasco	Christopher Grol Erika Dawson	Hydro One emailed Kitigan Zibi Anishinabeg and provided the Notice of Completion of draft ESR for the Project. Hydro One notified Kitigan Zibi Anishinabeg of the completion of the draft ESR for the Project and noted it would be available starting October 20, 2025 for 30 days for review. Hydro One invited questions or concerns.
2025-10-30 15:21	Email	Outgoing	Anishinabeodjibikan - Engagement - Jeff Dillane Jenniferkookum - Monica Maika Nadine Kopp Samantha Tenasco	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Matrix Heritage emailed Kitigan Zibi and confirmed the start date and details for the Stage 2 AA fieldwork on November 5, 2025 for the Project.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2024-07-29 11:06	Email	Outgoing	Marion Gale (National Capital Commission (NCC))	Jeff Hankin Leon Watson Scott McNair	Hydro One emailed the National Capital Commission (NCC) and provided Project details. Hydro One indicated that they are planning to start a new transmission line along an existing corridor from Hydro One's Hawthorne Transformer Station (TS) to Orleans TS, approximately 12 kilometres in length. Hydro One noted that the Project will involve installing a new single pole 115 kV line in the centre of the existing corridor and converting an existing 115 kV circuit to 230 kV to bring a second 230 kV supply to the Orleans area. Hydro One provided a detailed description and map as an attachment. Hydro One stated they would be carrying out a Class EA under the provincial Class EA for Transmission Facilities and will comply with requirements of the Impact Assessment Act (IAA). Hydro One noted they would be initiating the Class EA process by sending out a Notice of Commencement soon. Hydro One indicated that part of the subject corridor is on NCC lands through which Hydro One has an existing easement and that as such, they feel that the NCC's early involvement and feedback is vital to the success of the Project. Hydro One noted that they have also submitted an application to begin the Federal Land Use, Design, and Transaction Approval (FLUDTA) process. Hydro One noted that any questions or comments would be appreciated and to reach out at any time.
National Capital Commission (NCC)	2024-08-21 17:58	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Jasmine Guest (National Capital Commission (NCC)) Joshua Nguyen (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Leon Watson Scott McNair	The NCC emailed Hydro One and introduced themselves to the Project team, noting they would be the primary point of contact and provided the contact information for other NCC representatives support on the Project. The NCC provided availability for a pre-consultation meeting regarding the Project and noted they would like to go over the IAA determination requirements. The NCC advised Hydro One to invite their archaeologist to the meeting as well. The NCC indicated that any Project materials Hydro One had prepared should be submitted to the NCC prior to the pre-consultation meeting. The NCC indicated that based on the mapping provided it looked like the proposed transmission line would intersect with a registered archaeological site and provided recommendations for next steps.
National Capital Commission (NCC)	2024-08-22 13:55	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Jasmine Guest (National Capital Commission (NCC)) Joshua Nguyen (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Jeff Hankin Leon Watson Scott McNair	Hydro One emailed the NCC and thanked them for their advice, especially regarding Archaeology. Hydro One noted they would get back to the NCC regarding dates to meet.
National Capital Commission (NCC)	2024-08-28 10:28	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Jasmine Guest (National Capital Commission (NCC)) Joshua Nguyen (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Kevin Bros Leon Watson Scott McNair	Hydro One emailed the NCC and confirmed the meeting dates. Hydro One provided the names of the Hydro One team members that would be in attendance. Hydro One noted that there would be a brief presentation to introduce the Project and that they could provide additional information or documentation prior to the meeting.
Canadian National Railway (CN Rail)	2024-08-30 10:46	Email	Outgoing	Proximity CN Rail (Canadian National Railway (CN Rail))	Jeff Hankin	Hydro One emailed the Canadian National Railway (CNR) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
National Capital Commission (NCC)	2024-09-06 14:39	Email	Outgoing	Marion Gale (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	Hydro One emailed the NCC and indicated that two additional people from the Hydro One Real Estate department would be attending the meeting in person. Hydro One provided the contact information for the two additional attendees.
National Capital Commission (NCC)	2024-09-06 14:53	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Jasmine Guest (National Capital Commission (NCC)) Joshua Nguyen (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Kevin Bros Leon Watson Scott McNair	The NCC emailed Hydro One and inquired if they could be prepared to speak to impacts to continued land use of NCC lands, whether the Project was being coordinated with the Brian Coburn extension and Renaud Road realignment, and to clarify the scope of work and anticipated methods. The NCC requested that Hydro One provide a plan view showing the general extent of the area to be impacted. The NCC indicated that once scope and area of influence are known, they could provide information regarding NCC lands and contaminated soils, presence of SAR, and archaeological reports.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2024-09-09 09:34	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Jasmine Guest (National Capital Commission (NCC)) Joshua Nguyen (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Kevin Bros Leon Watson Scott McNair	Hydro One emailed the NCC and confirmed they could speak to the points mentioned by the NCC. Hydro One noted it was helpful to have some of the discussion points that will be brought up in their upcoming meeting.
National Capital Commission (NCC)	2024-09-16 00:00	In-Person Meeting		Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin Leon Watson Pham Quang Scott McNair	Hydro One and Dillon met with the NCC on September 16, 2024 to review Project details, key information, and next steps.
National Capital Commission (NCC)	2024-10-07 19:05	Email	Outgoing	Geneviève Marquis (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Michelle Tien Pham Quang	Hydro One emailed the NCC and provided a map and coordinates of the proposed location of the geotechnical borehole. Hydro One requested that NCC provide the anticipated turnaround time for technical review and application processing.
National Capital Commission (NCC)	2024-10-08 12:10	Email	Incoming	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Michelle Tien Pham Quang	The NCC emailed Hydro One to clarify when the borehole drilling would take place, to clarify what type of permit is needed. The NCC noted that they have cc'd the NCC archaeology team, and the land manager for the NCC lands. NCC stated that when their clarifying question is confirmed, the NCC will work to provide information on the timing for permission to undertake the borehole drilling.
National Capital Commission (NCC)	2024-10-09 12:32	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Kevin Bros Leon Watson Pham Quang Scott McNair	The NCC emailed Hydro One, and followed up on their meeting with Hydro One and Dillon on September 16, 2024 and provided an overview of the topics discussed including background information, key issues for the NCC, key information, and next steps. The NCC offered to set up a follow-up meeting in November.
National Capital Commission (NCC)	2024-10-16 14:40	Email	Outgoing	Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	Dillon emailed the NCC and provided the Field Program Terms of Reference for the Project, and welcomed comments from the NCC.
National Capital Commission (NCC)	2024-10-18 11:35	Email	Outgoing	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Michelle Tien Pham Quang	Hydro One emailed the NCC noting that they are completing a work plan that includes the access route, clarifying that the archaeology site would be avoided. Hydro One stated their preference would be to commence borehole drilling on November 11, 2024, appreciating that the NCC must complete their review prior to commencement.
National Capital Commission (NCC)	2024-10-18 12:04	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Alissa Lee (Dillon) Erika Dawson Jeff Hankin Kevin Bros Leon Watson Pham Quang Scott McNair	Hydro One emailed the NCC and thanked them for putting together the meeting notes. Hydro One stated that it was interesting to read the archaeology reports. Hydro One noted that they had reached out to the City of Ottawa regarding the Brian Coburn extension and that they would ensure that the new poles for the Project would not affect the City's plans and would coordinate access to the area.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2024-10-23 11:00	Email	Outgoing	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Jeff Hankin Michelle Tien Pham Quang	Hydro One emailed the NCC noting that they are seeking a land access permit to access and complete geotechnical drilling. Hydro One provided a map of the access route, the location for geotechnical drilling, the scope of work, a description of the work and the anticipated timelines.
National Capital Commission (NCC)	2024-10-24 09:56	Email	Incoming	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	The NCC emailed Hydro One to provide a contact for Land Access Permits for geotechnical drilling.
National Capital Commission (NCC)	2024-10-24 14:55	Email	Outgoing	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	Hydro One emailed the NCC to determine the best way to arrange a call to discuss land access permitting for geotechnical drilling.
National Capital Commission (NCC)	2024-10-31 13:14	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC provided comments regarding the Field Program Terms of Reference and a survey protocol for Western Chorus Frog to Hydro One.
National Capital Commission (NCC)	2024-11-04 10:04	Email	Outgoing	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	Hydro One followed up on review of Land Access permits.
National Capital Commission (NCC)	2024-11-04 11:39	Email	Incoming	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	The NCC emailed Hydro One a brief explanation of the land access permitting process and a link to the form on the NCC's website.
National Capital Commission (NCC)	2024-11-04 11:58	Email	Outgoing	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	Hydro One emailed the NCC to let them know the Land Access permit has been submitted and to provide a date on which geotechnical work would start.
National Capital Commission (NCC)	2024-11-04 11:59	Email	Incoming	Isabelle Hughes (National Capital Commission (NCC)) Marie-eve Bellfoy (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	208107 Jeff Hankin Pham Quang	The NCC provided a brief explanation of the land access permit process and a link to their website.
National Capital Commission (NCC)	2024-11-26 15:15	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	Dillon emailed the NCC noting that they are working to update the scope of the Field Studies Terms of Reference to include the additional field surveys the NCC provided and to address the NCC's comments. Dillon provided comments and questions in response to some of the NCC's comments.
National Capital Commission (NCC)	2024-12-02 16:26	Email	Incoming	Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Leon Watson	The NCC emailed Hydro One to ask for information for their file and to issue a Step 2 form.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2024-12-03 10:48	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC replied to Dillon's questions regarding archaeological studies and whether the provincial Environmental Study Report could be reviewed in place of a separate Environmental Effects Evaluation/Mitigation Measures Form.
National Capital Commission (NCC)	2024-12-06 13:50	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	Dillon emailed the NCC and asked if their archaeological subconsultant could review the NCC's approach and agree via email to expedite the process of initiating the archaeological overview assessment.
National Capital Commission (NCC)	2024-12-06 13:53	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC confirmed that the archaeological subconsultant should review information sent regarding the Archaeological Overview Assessment process.
National Capital Commission (NCC)	2024-12-10 09:15	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Bmortimer - Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC confirmed that they would reach out to two Indigenous communities to indicate that an Archaeological Overview Assessment is being prepared.
Algonquins of Pikwakanagan National Capital Commission (NCC)	2024-12-10 09:25	Email	Incoming	Alanna Hein (Algonquins of Pikwakanagan) Amanda Two-Axe Kohoko (Algonquins of Pikwakanagan) Bmortimer - Émilie Girard-ruel (National Capital Commission (NCC)) Greg Sarazin (Algonquins of Pikwakanagan) Marion Gale (National Capital Commission (NCC)) Mervin "Merv" Sarazin (Algonquins of Pikwakanagan) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC emailed Algonquins of Pikwakanagan to advise them about upcoming archaeological work for the Project.
Kitigan Zibi Anishinabeg National Capital Commission (NCC)	2024-12-10 09:25	Email	Incoming	Anita Tenasco Bmortimer - Debbie Whiteduck Émilie Girard-ruel (National Capital Commission (NCC)) Jean Guy Whiteduck Jean-Guy Whiteduck (Kitigan Zibi Anishinabeg) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) V Tenasco	Alissa Lee (Dillon) Jeff Hankin	NCC emailed Kitigan Zibi Anishinabeg and provided an introduction to the Project, and informed them that a Class EA for a new 115 kV transmission line in Ottawa, with plans to convert an existing line to 230 kV, had been initiated. The NCC provided project details, including the proposed location. The NCC noted that as part of the Class EA, Matrix Heritage was going to undertake an AA and an Archaeological Overview Assessment for the Project.
National Capital Commission (NCC)	2024-12-12 15:07	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	The NCC emailed Dillon providing information on the federal EA process and discussion on adopting a "one project, one assessment" approach.
National Capital Commission (NCC)	2025-01-07 12:33	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Ewan Vost (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Leon Watson Scott McNair	The NCC emailed Hydro One to thank them for meeting and to advise of the federal approval application process.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-01-07 15:19	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Ewan Vost (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Leon Watson Scott McNair	Hydro One emailed the NCC to thank them for sending environmental requirements documents and how the application fee could be paid.
National Capital Commission (NCC)	2025-01-07 15:28	Email	Incoming	Ewan Vost (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Leon Watson	The NCC emailed Hydro One regarding the invoice payment process.
National Capital Commission (NCC)	2025-01-07 15:39	Email	Outgoing	Marion Gale (National Capital Commission (NCC))	Jeff Hankin	Hydro One emailed NCC to thank them for explaining the invoicing process and to indicate they would watch for an invoice.
National Capital Commission (NCC)	2025-02-26 14:48	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Ewan Vost (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Leon Watson Shelly Reed	Hydro One emailed the NCC to provide a project update, notify them of an upcoming Community Open House, and requested review of text to be included in the public notice for the Community Open House.
National Capital Commission (NCC)	2025-03-03 15:01	Email	Incoming	Marion Gale (National Capital Commission (NCC))	Alissa Lee (Dillon) Erika Dawson Jeff Hankin Leon Watson Shelly Reed	The NCC thanked Hydro One for their update and notified their public communications team if they wished to attend the Community Open House.
National Capital Commission (NCC)	2025-03-25 10:42	Email	Outgoing	Marion Gale (National Capital Commission (NCC))	Jeff Hankin	Hydro One emailed the NCC and provided an invitation to the Project's community open house on April 9, 2025.
National Capital Commission (NCC)	2025-05-28 15:40	Email	Outgoing	Marion Gale (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	Hydro One provided an update on the Community Open House, fieldwork, and preliminary design information, and requested advice on the need to involve Environment and Climate Change Canada in the project due to the presence of Species at Risk in the area.
National Capital Commission (NCC)	2025-05-30 00:00	Email	Incoming	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	The NCC emailed Hydro One to ask for additional information on the route west of Highway 417 as the lands are also part of the Greenbelt and provided potential dates for an on-site meeting.
National Capital Commission (NCC)	2025-05-30 11:39	Email	Outgoing	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	Hydro One responded to the NCC regarding meeting dates and indicated they would walk through the google earth file of potential structure locations during the meeting.
National Capital Commission (NCC)	2025-06-02 10:16	Email	Outgoing	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	Hydro One emailed the NCC and confirmed their availability to meet, noting their preference for a virtual meeting.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-06-06 14:30	Meeting		Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	Hydro One and NCC met virtually to discuss structure locations, additional requested land west of Highway 417, and NCC policies.
National Capital Commission (NCC)	2025-06-09 09:45	Email	Outgoing	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Daniel Bourassa (Dillon) Elizabeth Wittman (Dillon) Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Shelly Reed	Dillon emailed the NCC and Hydro One to provide meeting notes from the meeting that occurred on June 6, 2025. A list of action items was also provided.
National Capital Commission (NCC)	2025-06-10 15:35	Email	Incoming	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Daniel Bourassa (Dillon) Elizabeth Wittman (Dillon) Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Shelly Reed	The NCC emailed Dillon and thanked them for providing the meeting notes from June 6, 2025. The NCC clarified that the archaeological sites are not Indigenous sites, however the next step remains the same.
National Capital Commission (NCC)	2025-06-16 18:20	Email	Incoming	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Daniel Bourassa (Dillon) Elizabeth Wittman (Dillon) Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Shelly Reed	The NCC provided a link to the Greenbelt Master Plan and key excerpts that apply to infrastructure additions.
National Capital Commission (NCC)	2025-06-25 11:20	Email	Outgoing	Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC)) Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Jeff Hankin	Dillon emailed the NCC to confirm what format is preferred for the ecological characterization report. Specifically, if a single report is in line with expectations, or if separate reports are preferred for certain studies.
National Capital Commission (NCC)	2025-06-26 10:13	Email	Incoming	Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC)) Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Jeff Hankin	The NCC emailed Dillon and confirmed the results of the environmental studies could be included in one report as long as there were clear headings and a table of contents.
National Capital Commission (NCC)	2025-06-26 10:17	Email	Outgoing	Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC)) Nicholle Smith	Alissa Lee (Dillon) Calvin Blewitt (Dillon) Jeff Hankin	Dillon emailed the NCC and thanked them for confirming that one report is acceptable.
National Capital Commission (NCC)	2025-07-03 10:59	Email	Outgoing	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Sara Schroeder Shelly Reed	Hydro One emailed the NCC and thanked them for meeting them on June 6, 2025. Hydro One indicated they had attempted to address the NCC's comments with Section 6.8 of the Greenbelt Master Plan. Hydro One advised that, as outlined in the document, Hydro One had explored a number options since the initial feasibility studies started in September 2023. Hydro One noted they had devised solutions to reduce potential effects to Mer Bleue Bog, reduce the number of structures and alter placement to be closer to existing structures, hedgerows, or property lines to minimize effects to farming operations, and minimize tree removal and maintain natural habitat. Hydro One offered to have an on-site meeting at the Hawthorne TS to demonstrate some of the constraints in the area.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-07-03 16:37	Email	Incoming	Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Sara Schroeder Shelly Reed	The NCC emailed Hydro One and confirmed they would review their availability for a potential site visit.
National Capital Commission (NCC)	2025-07-14 15:20	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Kevin Bros Leon Watson Lithwick Sharon Sara Schroeder Shelly Reed	The NCC emailed Hydro One and thanked them for providing the document outlining Hydro One's decision making for the route alignment, and for making adjustments to address NCC concerns. The NCC confirmed their interest in a site visit and provided their availability.
National Capital Commission (NCC)	2025-07-16 10:30	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	Hydro One emailed the NCC and provided a proposed date and agenda for the site visit.
National Capital Commission (NCC)	2025-07-17 12:35	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	The NCC emailed Hydro One and requested a later start for the site visit to allow the NCC representatives some additional time before arrival. The NCC inquired if there were other projects that have implications for the NCC that Hydro One was planning on providing an overview for. The NCC indicated their preference to keep the site visit specific to the Project. The NCC inquired if they should schedule a back up date if the weather was bad.
National Capital Commission (NCC)	2025-07-17 13:16	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	Hydro One emailed the NCC and provided a revised site visit agenda.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-07-29 17:40	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	The NCC emailed Hydro One regarding the upcoming site visit and provided some logistical questions regarding personal protective equipment, the NCC's arrival, and the contact information for the Hydro One representative. The NCC provided specific areas of interest for the site visit and general questions for discussion.
National Capital Commission (NCC)	2025-07-30 11:02	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	Hydro One emailed the NCC and provided responses to their questions regarding the details of the site visit.
National Capital Commission (NCC)	2025-07-30 11:44	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Fiona Mullin Gokhan Saltan Jeff Hankin Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Temesghen Bzuayehu	The NCC emailed Hydro One and inquired if certified steel-toed boots were required for the site visit. The NCC indicated they would bring as many hard hats and high visibility vests as they could but that they may have to borrow some. The NCC inquired if Hydro One had availability to discuss the details for the site visit.
National Capital Commission (NCC)	2025-07-31 09:30	In-Person Meeting		Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Gokhan Saltan Jeff Hankin Leon Watson Shelly Reed	NCC met with Hydro One at Hawthorne TS and visited several spots along the proposed transmission corridor to see engineering constraints and environmental features in person.
National Capital Commission (NCC)	2025-08-01 15:54	Email	Outgoing	Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC))	Jeff Hankin Leon Watson	Hydro One emailed the NCC and provided the contact information for the Hydro One representative to be the proponent authority.
National Capital Commission (NCC)	2025-08-20 09:31	Email	Outgoing	Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Jeff Hankin	Dillon emailed the NCC and provided the draft Archaeological Overview Assessment (AOA) for the Project. Dillon noted the current status of Indigenous community review of the AOA, and the French version of the executive summary. Dillon requested the NCC's comments on the AOA by September 10, 2025 to help plan for archaeological fieldwork.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-08-20 13:25	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Benjamin Cool-fergus (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Clinton Hazelwood David Kroft Dima Ostrovsky Fiona Mullin Gokhan Saltan José Espinoza (WSP) Kevin Bros Kinloch Robbie Leon Watson Lithwick Sharon Mojtaba Jalambadani Sara Schroeder Shelly Reed Sohail Nejat Temesghen Bzuayehu Van Koppen Ronald Young Barry	Hydro One emailed the NCC and thanked them for attending the in-person site visit on July 31, 2025, and provided a summary of what was discussed.
National Capital Commission (NCC)	2025-08-21 16:36	Email	Incoming	Bmortimer - Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Nadine Kopp	Alissa Lee (Dillon) Jeff Hankin	The NCC emailed Dillon, working on behalf of Hydro One, and confirmed they could review the Archaeological Overview Assessment by September 10, 2025. The NCC thanked Dillon for providing the report to the Indigenous communities.
National Capital Commission (NCC)	2025-08-28 16:18	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Clinton Hazelwood David Kroft Dima Ostrovsky Fiona Mullin Gokhan Saltan Jeff Hankin José Espinoza (WSP) Kevin Bros Kinloch Robbie Leon Watson Mojtaba Jalambadani Sara Schroeder Shelly Reed Sohail Nejat Temesghen Bzuayehu Van Koppen Ronald Young Barry	The NCC emailed Hydro One and advised they were aiming to send their edits and additions to Hydro One's site visit notes by the end of the week or early the following week. The NCC requested that Hydro One provide a copy of their submission to the ECCC and any other correspondence with them.
National Capital Commission (NCC)	2025-08-29 09:32	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson	Hydro One emailed the NCC and confirmed they received a response from ECCC regarding the Project. Hydro One provided the correspondence between the ECCC and Hydro One and noted they had reached out to the ECCC to see if any additional information was needed.
National Capital Commission (NCC)	2025-08-29 10:06	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson	The NCC emailed Hydro One and inquired if they could follow up with the ECCC to confirm whether they would want to review the alignment and pole locations, or if they are comfortable with the NCC proceeding with the review and decision making.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-08-29 10:39	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Jeff Hankin Leon Watson	Hydro One emailed the NCC to confirm they would reach out to Environment and Climate Change Canada regarding the July 3rd report.
National Capital Commission (NCC)	2025-09-04 10:25	Email	Incoming	Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon)	The NCC emailed Dillon and provided their comments on the AOA for the Project. The NCC asked if the AOA was sent to Kitigan Zibi Anishinabeg. The NCC also noted the appropriate categories for archaeological potential on federal lands, and an archaeological site that was missing from the AOA, stating that the AOA is currently deficient and will need to address these.
National Capital Commission (NCC)	2025-09-05 11:00	Email	Outgoing	Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Dillon emailed the NCC and thanked them for their comments on the AOA, noting that Dillon and their archaeology subconsultant would work to address these concerns and issue a revised report. Dillon deferred to Hydro One's Indigenous Relations team to provide clarity on which Indigenous communities were provided the AOA for review.
National Capital Commission (NCC)	2025-09-05 13:48	Email	Outgoing	Bmortimer - Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	Hydro One emailed the NCC and confirmed they had provided Kitigan Zibi Anishinabeg with a Notice of Commencement on January 9, 2025, followed by a phone call. Hydro One indicated that Kitigan Zibi Anishinabeg had expressed not being interested in the Project. Hydro One noted they would reach back out to Kitigan Zibi Anishinabeg and offer to share the Archaeological Overview Assessment with them. Hydro One confirmed they would include the NCC on the emails to Kitigan Zibi Anishinabeg.
National Capital Commission (NCC)	2025-09-05 13:52	Email	Incoming	Bmortimer - Jeff Dillane Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC))	Alissa Lee (Dillon) Christopher Grol Erika Dawson Jeff Hankin	The NCC emailed Hydro One and requested that Hydro One copy the NCC on any correspondence with Kitigan Zibi Anishinabeg and Algonquins of Ontario. The NCC indicated that though Kitigan Zibi Anishinabeg has said they are not interested in the Project, Anishinabe Odjibikan, the archaeological field school made up of members of Kitigan Zibi Anishinabeg and Algonquins of Pikwakanagan, may be interested in being involved in the archaeological fieldwork. The NCC offered to provide Hydro One with the contact information for the field school.
National Capital Commission (NCC)	2025-09-05 15:26	Email	Incoming	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Geneviève Marquis (National Capital Commission (NCC)) Isabelle Hughes (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Alissa Lee (Dillon) Andrew Mcpherson Christopher Grol Clinton Hazelwood David Kroft Dima Ostrovsky Fiona Mullin Gokhan Saltan Jeff Hankin José Espinoza (WSP) Kevin Bros Kinloch Robbie Leon Watson Mojtaba Jalambadani Sara Schroeder Shelly Reed Sohail Nejat Temesghen Bzuayehu Van Koppen Ronald Young Barry	The NCC emailed Hydro One and thanked them for the summary of their meeting and provided consolidated NCC team revisions to the meeting summary.
National Capital Commission (NCC)	2025-09-09 15:35	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin	The NCC emailed Hydro One and followed up on a discussion from the July 31, 2025 site visit and the Federal Approval (FLUDTA) Step 2 form submission requirements for the Project. The NCC inquired about the anticipated timeline for receiving the ecological characterization studies and expressed interest in reviewing and commenting on a draft copy. The NCC referenced the "NCC Environmental Requirements – Hydro One Orleans 230 kV Second Supply.pdf" for details on the required deliverables.
National Capital Commission (NCC)	2025-09-09 16:44	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Lithwick Sharon	The NCC emailed Hydro One to provide initial guidance on obtaining an NCC Land Access Permit for the Project. The NCC included a link to the online application for the Land Access Permit and offered assistance with filling out the form. The NCC included initial details from NCC colleagues regarding the impacted areas, including maps of impacted areas, total hectares anticipated to be ploughed, and equipment types to be used. The NCC noted the presence of two large agricultural tenants growing cash crops, with an expected harvest completion by the end of October 2025. The NCC emphasized the need for tenant agreement and a minimum 48-hour notice to NCC before commencing work on leased agricultural fields.
National Capital Commission (NCC)	2025-09-09 17:07	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson	The NCC emailed Hydro One regarding two Project deliverables, the NCC suggested a meeting to discuss and coordinate progress on the project, specifically concerning archaeology and the environmental studies. The NCC proposed a phone call to discuss and resolve any issues and included a Hydro One representative in the email for coordination. The NCC suggested a large group discussion involving parties from Archaeology, Indigenous and Public Relations, Environmental Assessment, and Real Estate/Leasing, and proposed to coordinate schedules for a meeting in the coming weeks with a set agenda.
National Capital Commission (NCC)	2025-09-10 09:17	Email	Outgoing	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	Hydro One emailed the NCC and proposed a meeting as early as September 15, 2025.
National Capital Commission (NCC)	2025-09-10 10:34	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	The NCC emailed Hydro One and proposed a meeting on Monday, September 15, 2025, to discuss ongoing work, including environmental and archaeology studies. The NCC suggested a quick check-in call to discuss progress and the anticipated schedule. The NCC proposed an agenda which included covering the Archaeological Overview Assessment, the Land Access Permit, and the Ecological Characterization Studies. The NCC provided their availability to meet.
National Capital Commission (NCC)	2025-09-15 00:00	Meeting		Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	Hydro One and NCC met to discuss project details including archaeological overview assessment, land access permitting process, and archaeological ploughing, and environmental characterization studies.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
National Capital Commission (NCC)	2025-09-29 11:00	Meeting		Derek Newton (National Capital Commission (NCC)) Isabelle Amyot (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	The NCC and Hydro One met to discuss project developments, including land access permitting process and easement requirements, construction timelines, and corridor width.
National Capital Commission (NCC)	2025-09-29 16:00	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Lithwick Sharon	The NCC emailed Hydro One with questions from an NCC Advisor regarding the proposed Project. The NCC inquired about the completion of the first step of the pedestrian "walk-over" survey, specifically whether tenants must perform the ploughing and if Hydro One or its consultants can provide their own equipment if tenants opt out. The NCC asked about compensation rates for tenants participating in the work and sought clarification on compensation for crop losses, depending on the timing of the work relative to the harvest.
National Capital Commission (NCC)	2025-10-09 00:00	Meeting		Derek Newton (National Capital Commission (NCC)) Isabelle Amyot (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	Hydro One and NCC met to discuss project updates, archaeological field surveys, and ploughing.
Canadian National Railway (CN Rail)	2025-10-17 12:43	Email	Outgoing	Proximity CN Rail (Canadian National Railway (CN Rail))	Jeff Hankin	Hydro One emailed CN Rail and provided the Notice of Completion of draft ESR for the Project. Hydro One notified CN Rail of the completion of the draft ESR and noted it would be available starting October 20, 2025 for 30 days to review. Hydro One invited CN Rail to review the materials and provide feedback.
National Capital Commission (NCC)	2025-10-17 13:07	Email	Outgoing	Alexander Stone (National Capital Commission (NCC)) Derek Newton (National Capital Commission (NCC)) Marion Gale (National Capital Commission (NCC)) Monica Maika (National Capital Commission (NCC)) Natalie Glancy (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon	Hydro One emailed the NCC and provided the Notice of Completion of draft ESR for the Project. Hydro One notified the NCC of the completion of the draft ESR and noted it would be available starting October 20, 2025 for 30 days to review. Hydro One invited the NCC to review the materials and provide feedback.
National Capital Commission (NCC)	2025-12-09 00:00	Meeting		Derek Newton (National Capital Commission (NCC))	Jeff Hankin Lithwick Sharon Temesghen Bzuayehu	Hydro One and NCC met on a bi-weekly call to discuss project updates, timelines, and potential approval of the proposed route.
National Capital Commission (NCC)	2026-01-05 15:20	Email	Outgoing	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed Temesghen Bzuayehu	Hydro One emailed the NCC to request the NCC's endorsement of the Project prior to January 22, 2026. Hydro One provided an overview of the Project, including the Project need and anticipated schedule. Hydro One also provided preliminary design drawings and mapping to assist with the NCC's review. Hydro One invited questions and offered to hold a meeting to discuss the request.
National Capital Commission (NCC)	2026-01-19 17:00	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin Leon Watson Lithwick Sharon Shelly Reed	The NCC emailed Hydro One and provided the signed FLUDTA review letter.
National Capital Commission (NCC)	2026-02-13 11:47	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin	The NCC emailed Hydro One to follow up on the planting plans for the Project. The NCC provided a reminder to Hydro One regarding the NCC's environmental requirements of a Tree Compensation Plan/ Strategy, as well as a Landscape Plan. The NCC indicated their openness to collaborate and work with Hydro One on the submission requirements. The NCC inquired if Hydro One would like to set a dedicated time to discuss the requirements and noted they could include their colleagues on the discussion. The NCC offered to have a call to discuss the requirements, adding it may be best to hold the call once Hydro One has more information regarding the definite number of tree removals along the transmission line corridor.
National Capital Commission (NCC)	2026-02-13 14:09	Email	Outgoing	Derek Newton (National Capital Commission (NCC))	Jeff Hankin	Hydro One emailed the NCC and indicated having a separate meeting to discuss Tree Compensation Plantings and the Landscape Plan would be better. Hydro One noted they would have definite tree removal numbers the following week and provided their availability.
National Capital Commission (NCC)	2026-02-20 17:16	Email	Incoming	Derek Newton (National Capital Commission (NCC))	Jeff Hankin	The NCC emailed Hydro One and requested confirmation of the number of trees. The NCC noted they would connect with Hydro One the following week.
National Capital Commission (NCC)	2026-02-23 10:59	Email	Outgoing	Derek Newton (National Capital Commission (NCC))	Jeff Hankin	Hydro One emailed the NCC and indicated that the tree numbers were in an excel sheet. Hydro One confirmed that the large trees on the slope near Highway 417 do not have to be removed.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Ministry of Citizenship and Multiculturalism (MCM)	2024-08-30 10:49	Email	Outgoing	Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM))	Jeff Hankin	Hydro One emailed the Ministry of Citizenship and Multiculturalism (MCM) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Ministry of Municipal Affairs and Housing (MMAH)	2024-08-30 10:48	Email	Outgoing	Michael Elms (Ministry of Municipal Affairs and Housing (MMAH))	Jeff Hankin	Hydro One emailed the Ministry of Municipal Affairs and Housing (MMAH) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Ministry of Natural Resources and Forestry (MNRF)	2024-08-30 10:48	Email	Outgoing	MNR Southern Region Email Inbox (Ministry of Natural Resources and Forestry (MNRF))	Jeff Hankin	Hydro One emailed the Ministry of Natural Resources (MNR) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Ministry of the Environment, Conservation and Parks (MECP)	2024-08-30 10:42	Email	Outgoing	EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP))	Jeff Hankin	Hydro One emailed the Ministry of the Environment, Conservation and Parks (MECP) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Ministry of the Environment, Conservation and Parks (MECP)	2024-08-30 12:09	Email	Outgoing	Emily Tieu (Ministry of the Environment, Conservation and Parks (MECP)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP))	Jeff Hankin	Hydro One emailed the MECP and thanked them for the quick response noting that the resources and links were very helpful.
Ministry of the Environment, Conservation and Parks (MECP)	2024-08-30 11:55	Email	Incoming	Emily Tieu (Ministry of the Environment, Conservation and Parks (MECP)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP))	Jeff Hankin	MECP emailed Hydro One and provided their preliminary comments on the Project. The MECP also provided several resources to use for reference throughout the Project.
Ministry of Transportation (MTO)	2024-08-30 10:42	Email	Outgoing	George Taylor (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed the Ministry of Transportation (MTO) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Ministry of Transportation (MTO)	2024-08-30 10:47	Email	Outgoing	Jenn Meleschuk (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed the MTO and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Rideau Valley Conservation Authority	2024-08-30 10:53	Email	Outgoing	Glen McDonald (Rideau Valley Conservation Authority)	Jeff Hankin	Hydro One emailed the Rideau Valley Conservation Authority (RVCA) and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
Rideau Valley Conservation Authority	2024-08-30 10:54	Email	Outgoing	Megan Peacock (Rideau Valley Conservation Authority)	Jeff Hankin	Hydro One emailed the RVCA and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.
South Nation Conservation	2024-08-30 10:57	Email	Outgoing	James Holland (South Nation Conservation)	Jeff Hankin	Hydro One emailed South Nation Conservation and indicated that Hydro One was planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the Project.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Ministry of Transportation (MTO)	2024-09-04 13:19	Email	Outgoing	George Taylor (Ministry of Transportation (MTO)), Kartik Suresh, Tarique Kamal	Jeff Hankin	Hydro One emailed MTO and thanked them, noting they were working with an MTO employee on another Project and that hopefully they would be able to work with together on this Project as well.
Ministry of Transportation (MTO)	2024-09-04 10:45	Email	Incoming	George Taylor (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	MTO emailed Hydro One noting that the Notice of Commencement has been forwarded to the appropriate contact.
Ministry of Transportation (MTO)	2024-09-25 15:33	Email	Outgoing	Alexandre Gitkow (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Robert Cole, Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed MTO to thank them for their comments and mentioned they would pass them on to the Project engineer.
Ministry of Transportation (MTO)	2024-09-25 11:21	Email	Incoming	Alexandre Gitkow (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Robert Cole, Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	MTO emailed Hydro One attaching comments from the Ministry of Transportation and offered assistance for any questions.
Ministry of Energy, Ministry of Energy and Electrification	2024-09-27 11:47	Email	Outgoing	Amy Gibson (Ministry of Energy), Farrah Ali-Khan (Ministry of Energy and Electrification), Gillian Brown (Ministry of Energy), Rosalind Ashe (Ministry of Energy)	Barbara Hood, Christopher Grol, Dan Reeves, Erika Dawson, Jeff Hankin, Leon Watson, Toth Karola	Hydro One emailed the Ministry of Energy and Mines (MEM) and informed them that Hydro One is commencing a Class Environmental Assessment for the proposed Project, in accordance with the approved "Class Environmental Assessment for Transmission Facilities" under the Ontario Environmental Assessment Act. On behalf of Director of Environmental Services, Hydro One attached a letter requesting the MEM's determination on whether the proposed Project triggers the Crown's constitutional Duty to Consult regarding Indigenous and treaty rights. Hydro One provided a Project location map, Project description map, and shapefiles of the proposed line.
Ministry of Citizenship and Multiculturalism (MCM)	2024-10-16 11:05	Email	Incoming	Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM)), Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM))	Community Relations Inbox, Jeff Hankin	The MCM emailed Hydro One and acknowledged receipt of the Project Notice of Commencement. The MCM provided a letter with their initial comments on the Project.
Ministry of Energy and Mines	2024-12-13 17:04	Email	Incoming	Amy Gibson (Ministry of Energy and Mines), Hilary Ferguson (Ministry of Energy and Mines), Samir Adkar (Ministry of Energy and Mines), Shannon McCabe (Ministry of Energy and Mines)	Toth Karola	The Ministry of Energy and Electrification emailed Hydro One and provided the Duty to Consult delegation letter.
Ministry of Natural Resources (MNR)	2025-03-25 12:04	Email	Outgoing	MNR Southern Region Email Inbox (Ministry of Natural Resources (MNR))	Jeff Hankin	Hydro One emailed the Ministry of Natural Resources (MNR) and provided an invitation to the Project's community open house on April 9, 2025.
Ministry of Transportation (MTO)	2025-03-25 11:30	Email	Outgoing	Alexandre Gitkow (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Robert Cole, Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed MTO and provided an invitation for the Project's community open house on April 9, 2025.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Rideau Valley Conservation Authority	2025-03-25 14:36	Email	Outgoing	Glen McDonald (Rideau Valley Conservation Authority)	Jeff Hankin	Hydro One emailed the RVCA to inform them about a community open house for the Project on April 9th, and provided an invitation. They noted that the Project may cross several regulated areas within the RVCA watershed, including the Mer Bleue Bog, and inquired if RVCA would be interested in participating in the Class EA process. Hydro One offered to set up a meeting with the Project team or provide additional Project information and mentioned collaboration with the NCC through the FLUDTA process.
South Nation Conservation	2025-03-25 13:19	Email	Outgoing	James Holland (South Nation Conservation)	Jeff Hankin	Hydro One emailed South Nation Conservation to inform them about a community open house for the Project scheduled for April 9th. Hydro One attached an invitation and invited the South Nation Conservation to share any comments or questions in the meantime.
Rideau Valley Conservation Authority	2025-03-27 10:58	Email	Incoming	Nick Fritzsche (Rideau Valley Conservation Authority)	Jeff Hankin	RVCA emailed Hydro One confirming that RVCA will not attend the Open House session on April 9th. They requested Hydro One to reach out for authorization for works within regulated areas, such as the Mer Bleue Provincially Significant Wetland and any required watercourse crossings, and mentioned issuing Standard Compliance Requirement forms per the MOU.
South Nation Conservation	2025-03-28 10:47	Email	Incoming	James Holland (South Nation Conservation), Regulations Mailbox - (South Nation Conservation)	Jeff Hankin	South Nation Conservation emailed Hydro One acknowledging receipt of the notice and mentioned that most of the project falls within Rideau Valley Conservation Authority's jurisdiction, except for the area near Mer Bleue Road. They advised contacting SNC for permit requirements if watercourse alteration is anticipated and requested future correspondence be sent to a different email address.
Ministry of Transportation (MTO)	2025-10-01 00:00	Meeting		Brian Hickey (Ministry of Transportation (MTO))	Jeff Hankin, Leon Watson, Sandi Chieu, Todd Read, Young Barry	Hydro One and MTO met to discuss the Project, mainly regarding specific geotechnical permitting requirements.
Ministry of Citizenship and Multiculturalism (MCM)	2025-10-17 13:13	Email	Outgoing	Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM))	Jeff Hankin	Hydro One emailed the MCM and provided the Notice of Completion of draft ESR for the Project. Hydro One notified the MCM of the completion of the draft ESR and and noted it would be available through the Project website starting October 20, 2025 for a 30 day review period. Hydro One indicated that a Stage 1 AA had been completed for the Project and would be filed shortly and that their consultant archaeologist was working on the Stage 2 AA.
Ministry of Natural Resources (MNR)	2025-10-17 12:40	Email	Outgoing	MNR Southern Region Email Inbox (Ministry of Natural Resources (MNR))	Jeff Hankin	Hydro One emailed the MNR and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period.
Ministry of the Environment, Conservation and Parks (MECP)	2025-10-17 13:16	Email	Outgoing	EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP))	Jeff Hankin	Hydro One emailed the MECP and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period.
Ministry of the Environment, Conservation and Parks (MECP)	2025-10-17 13:16	Email	Incoming	EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP))	Jeff Hankin	The MECP EA Notices department emailed Hydro One an automatic reply acknowledging receipt of Hydro One's email.
Ministry of Transportation (MTO)	2025-10-17 12:37	Email	Outgoing	Alexandre Gitkow (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Robert Cole, Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed the MTO and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period. Hydro One committed to ensuring the MTO's comments regarding vertical clearances for the highway crossing would be considered during detailed design, and stated they looked forward to providing the design for MTO's review and to further discussion with the MTO.
Ministry of Transportation (MTO)	2025-10-17 12:56	Email	Outgoing	Alexandre Gitkow (Ministry of Transportation (MTO)), Brian Hickey (Ministry of Transportation (MTO)), Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	Hydro One emailed the MTO and acknowledged a request and confirmed they would follow through.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Ministry of Transportation (MTO)	2025-10-17 12:53	Email	Incoming	Alexandre Gitkow (Ministry of Transportation (MTO)), Brian Hickey (Ministry of Transportation (MTO)), Kartik Suresh (Ministry of Transportation (MTO)), Robert Cole, Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin	MTO emailed Hydro One and provided updated contact information to be included on the Project contact list going forward.
Rideau Valley Conservation Authority	2025-10-17 12:50	Email	Outgoing	Nick Fritzsche (Rideau Valley Conservation Authority)	Jeff Hankin	Hydro One emailed the RVCA and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period. Hydro One indicated the Project was moving into detailed design and that they should have more details regarding work in regulated areas in the next couple months.
South Nation Conservation	2025-10-17 12:52	Email	Outgoing	Regulations Mailbox - (South Nation Conservation)	Jeff Hankin	Hydro One emailed South Nation Conservation and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period.
South Nation Conservation	2025-10-17 12:53	Email	Incoming	Regulations Mailbox - (South Nation Conservation)	Jeff Hankin	South Nation Conservation emailed Hydro One and acknowledged receipt of their email. South Nation Conservation directed Hydro One to Frequently Asked Questions for immediate guidance. South Nation Conservation noted that a team member would follow up if needed.
Ministry of Natural Resources (MNR)	2025-10-20 14:27	Email	Incoming	Sarah Bale (Ministry of Natural Resources (MNR))	Jeff Hankin	The MNR emailed Hydro One and inquired if Hydro One had received information regarding the MNR's commenting/regulatory role in response to the Notice of Commencement in August 2024. The MNR noted they wanted to ensure this information was considered in the drafting of the ESR. The MNR indicated they may have additional comments regarding the ESR but wanted to confirm if the MNR information had been received first. The MNR provided their updated Information Package for External Proponent Environmental Assessments, adding that it may be useful to use the document as a checklist. The MNR noted to let them know if Hydro One had any specific technical questions or questions regarding potential approvals and permits.
Ministry of Natural Resources (MNR)	2025-10-20 14:55	Email	Outgoing	Sarah Bale (Ministry of Natural Resources (MNR))	Jeff Hankin	Hydro One emailed the MNR and thanked them for providing the information package. Hydro One noted they did not think they received an information package in response to the Notice of Commencement, but that they have received the same package for other projects and have considered the information in the drafting of the ESR. Hydro One indicated that any other comments that the MNR may have on the draft ESR would be great, and that Hydro One would let the MNR know if they had any questions regarding potential approvals or permits. Hydro One stated they may require a License to Collect Fish for Scientific Purposes to relocate fish for the Ramsay Creek watercourse crossing.
Ministry of Citizenship and Multiculturalism (MCM), Ministry of the Environment, Conservation and Parks (MECP)	2025-11-25 16:45	Email	Incoming	Anastasia Abrazhevich (Ministry of Citizenship and Multiculturalism (MCM)), EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP)), Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM)), James Hamilton (Ministry of Citizenship and Multiculturalism (MCM)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP)), Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM)), Mariana Nito (Ministry of Citizenship and Multiculturalism (MCM))	Jeff Hankin	The MCM emailed Hydro One and thanked them for sending the Notice of Completion and Draft ESR to the MCM. The MCM provided their comments on the draft ESR.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Ministry of Citizenship and Multiculturalism (MCM), Ministry of the Environment, Conservation and Parks (MECP)	2025-12-18 14:59	Email	Outgoing	Anastasia Abrazhevich (Ministry of Citizenship and Multiculturalism (MCM)), EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP)), Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM)), James Hamilton (Ministry of Citizenship and Multiculturalism (MCM)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP)), Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM)), Mariana Nito (Ministry of Citizenship and Multiculturalism (MCM))	Alissa Lee (Dillon), Jeff Hankin	Hydro One emailed the MCM and thanked them for their comments on the draft ESR. Hydro One noted that the MCM's recommendations and revisions would be incorporated into the final ESR. Hydro One also provided a comment and response table in response to the MCM's draft ESR comments.
Ministry of Transportation (MTO)	2026-01-05 10:52	Email	Outgoing	Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin, Leon Watson, Lithwick Sharon, Shelly Reed, Todd Read	Hydro One emailed MTO and indicated that construction is anticipated to begin in the fall of 2026. Hydro One asked how much time MTO would need to review the road crossing request and issue approval.
Ministry of Transportation (MTO)	2026-01-06 10:36	Email	Incoming	Jasmin Boudreau (Ministry of Transportation (MTO)), Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin, Leon Watson, Lithwick Sharon, Shelly Reed, Todd Read	MTO emailed Hydro One and indicated that the review process typically takes 4-6 weeks after receiving a complete permit application. MTO provided a link to the encroachment permit application submission webpage and provided an MTO contact for assistance throughout the application process.
Ministry of Transportation (MTO)	2026-01-07 08:18	Email	Outgoing	Jasmin Boudreau (Ministry of Transportation (MTO)), Tarique Kamal (Ministry of Transportation (MTO))	Jeff Hankin, Leon Watson, Lithwick Sharon, Shelly Reed, Todd Read	Hydro One emailed MTO and stated that they would complete the application and keep the MTO contact in the loop.
Ministry of Citizenship and Multiculturalism (MCM), Ministry of the Environment, Conservation and Parks (MECP)	2026-01-20 13:45	Email	Incoming	Anastasia Abrazhevich (Ministry of Citizenship and Multiculturalism (MCM)), Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM)), James Hamilton (Ministry of Citizenship and Multiculturalism (MCM)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP)), Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM)), Mariana Nito (Ministry of Citizenship and Multiculturalism (MCM))	Alissa Lee (Dillon), Jeff Hankin	The MCM emailed Hydro One and thanked them for provided a response table for the MCM comments on the Project draft ESR. The MCM indicated they had reviewed the response table and noted that not all the comments had been addressed. The MCM stated that the completion of a Cultural Heritage Report: Existing Conditions and Preliminary Impacts Assessment was a requirement under Hydro One's Identification & Evaluation Process, the Ontario Heritage Act, and the Environmental Assessment Act. The MCM offered to have a call to discuss the comments.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Ministry of Citizenship and Multiculturalism (MCM), Ministry of the Environment, Conservation and Parks (MECP)	2026-02-03 18:24	Email	Outgoing	Anastasia Abazhevich (Ministry of Citizenship and Multiculturalism (MCM)), EA Notification Eastern Region (Ministry of the Environment, Conservation and Parks (MECP)), Erika Leclerc (Ministry of Citizenship and Multiculturalism (MCM)), James Hamilton (Ministry of Citizenship and Multiculturalism (MCM)), Jon Orpana (Ministry of the Environment, Conservation and Parks (MECP)), Karla Barboza (Ministry of Citizenship and Multiculturalism (MCM)), Mariana Nito (Ministry of Citizenship and Multiculturalism (MCM))	Alissa Lee (Dillon), Jeff Hankin	Hydro One emailed the MCM and noted they had replaced the Cultural Heritage Screening Memo with a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (CHRECPIA) and had updated the language in the ESR. Hydro One indicated that the CHRECPIA will be included in the final ESR.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
City of Ottawa	2024-08-20 15:34	Email	Outgoing	Catherine Kitts (City of Ottawa)	Community Relations Inbox	Hydro One emailed City of Ottawa Councillor Kitts and their office to provide information on the Project. Hydro One indicated that to support the growing electricity demand in the Orleans area, they are initiating a Class Environmental Assessment (EA) to build a new approximately 12-kilometer 115 kilovolt (kV) transmission line between Orleans Transformer Station (TS) and Hawthorne TS. Hydro One provided the Notice of Commencement for the Project and noted that the proposed transmission line would be in the middle of an existing hydro corridor as shown on the map provided in the Notice. Hydro One indicated that the majority of the new line would consist of single poles similar to roadside distribution lines. Hydro One stated that over the following weeks they would be sending out the Notice of Commencement via mail and newspaper ads within the Project study area and that they would be hosting a community open house in the area to meet with community members and answer any Project-related questions. Hydro One noted that in advance of the meeting they would like an opportunity to brief the Councillor on the Project and upcoming plans. Hydro One noted they would reach out once they have more information on the EA.
City of Ottawa	2024-08-20 15:40	Email	Outgoing	Laura Dudas (City of Ottawa)	Community Relations Inbox	Hydro One emailed City of Ottawa Councillor Dudas and their office to provide information on the Project. Hydro One indicated that to support the growing electricity demand in the Orleans area, they are initiating a Class Environmental Assessment (EA) to build a new approximately 12-kilometer 115 kilovolt (kV) transmission line between Orleans Transformer Station (TS) and Hawthorne TS. Hydro One provided the Notice of Commencement for the Project and noted that the proposed transmission line would be in the middle of an existing hydro corridor as shown on the map provided in the Notice. Hydro One indicated that the majority of the new line would consist of single poles similar to roadside distribution lines. Hydro One stated that over the following weeks they would be sending out the Notice of Commencement via mail and newspaper ads within the Project study area and that they would be hosting a community open house in the area to meet with community members and answer any Project-related questions. Hydro One noted that in advance of the meeting they would like an opportunity to brief the Councillor on the Project and upcoming plans. Hydro One noted they would reach out once they have more information on the EA.
City of Ottawa	2024-08-20 16:36	Email	Outgoing	Laura Dudas (City of Ottawa)	Community Relations Inbox	Hydro One emailed the office of City of Ottawa Councillor Dudas and confirmed they had also contacted Councillor Kitts. Hydro One noted to reach out with any further questions.
City of Ottawa	2024-08-20 16:15	Email	Incoming	Laura Dudas (City of Ottawa)	Community Relations Inbox	The office of City of Ottawa Councillor Dudas emailed Hydro One and thanked them for bringing the Project to the Councillor's attention. The Councillor's office inquired whether Hydro One has been in touch with Councillor Kitts' office as well since the areas to the south of the Blackburn Bypass and Innes Road are now within their ward following the 2022 municipal boundary changes.
City of Ottawa	2024-08-20 16:43	Email	Incoming	Laura Dudas (City of Ottawa)	Community Relations Inbox	The office of City of Ottawa Councillor Dudas emailed Hydro One and noted that the Councillor recently had eye surgery and had not had a chance to review the document but that it would be brought to their attention and the office of the Councillor would let Hydro One know of any questions the Councillor may have.
City of Ottawa	2024-08-20 15:41	Email	Outgoing	Jessica Bradley	Community Relations Inbox	Hydro One emailed City of Ottawa Councillor Bradley and their office to provide information on the Project. Hydro One indicated that to support the growing electricity demand in the Orleans area, they are initiating a Class Environmental Assessment (EA) to build a new approximately 12-kilometer 115 kilovolt (kV) transmission line between Orleans Transformer Station (TS) and Hawthorne TS. Hydro One provided the Notice of Commencement for the Project and noted that the proposed transmission line would be in the middle of an existing hydro corridor as shown on the map provided in the Notice. Hydro One indicated that the majority of the new line would consist of single poles similar to roadside distribution lines. Hydro One stated that over the following weeks they would be sending out the Notice of Commencement via mail and newspaper ads within the Project study area and that they would be hosting a community open house in the area to meet with community members and answer any Project-related questions. Hydro One noted that in advance of the meeting they would like an opportunity to brief the Councillor on the Project and upcoming plans. Hydro One noted they would reach out once they have more information on the EA.
City of Ottawa	2024-08-21 08:52	Email	Outgoing	Laura Dudas (City of Ottawa)	Community Relations Inbox	Hydro One emailed the office of City of Ottawa Councillor Dudas and thanked them, noting they wish the Councillor a fast recovery.
City of Ottawa	2024-08-21 09:22	Email	Incoming	Adam Haga, Catherine Kitts (City of Ottawa)	Community Relations Inbox	City of Ottawa Councillor Kitts emailed Hydro One and thanked them for advising them of the upcoming Project and public consultation. Councillor Kitts requested confirmation that the only new infrastructure would be the new poles proposed in the study area. Councillor Kitts indicated they would appreciate being kept informed of the community engagement session date and time, as they would like to ensure that someone from their team could attend. Councillor Kitts inquired when the Notice of Commencement would be sent out to residents and if Hydro One could provide a rough map of the residential areas that would receive the notice.
City of Ottawa	2024-08-21 11:22	Email	Outgoing	Adam Haga, Catherine Kitts (City of Ottawa)	Community Relations Inbox	Hydro One emailed the office of City of Ottawa Councillor Kitts and confirmed that the new infrastructure would be poles to support the 115 kV transmission line down the centre of the existing hydro corridor. Hydro One noted they would reach out again with more information regarding the community open houses and indicated that the Notice of Commencement would be sent out the following week. Hydro One provided a map of the campaign mailing routes and noted it included 13,000 unique addresses.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
City of Ottawa	2024-08-21 15:52	Email	Incoming	Adam Haga, Catherine Amanda On Behalf Of Kitts, Heather Scott (City of Ottawa)	Community Relations Inbox	The office of City of Ottawa Councillor Kitts emailed Hydro One and thanked them for their response with additional details. The office of Councillor Kitts noted they would reach out if they have any questions.
City of Ottawa	2024-08-21 09:20	Email	Incoming	Hollie Pullins, Jessica Bradley, Tiffany Botting	Community Relations Inbox	City of Ottawa Councillor Bradley emailed Hydro One and thanked them for sharing the information related to the Project. Councillor Bradley noted they would be happy to meet in the fall to discuss the Project and provided a contact to assist in scheduling the briefing.
City of Ottawa	2024-08-21 09:45	Email	Outgoing	Hollie Pullins, Jessica Bradley, Tiffany Botting	Community Relations Inbox	Hydro One emailed City of Ottawa Councillor Bradley and thanked them for connecting Hydro One with the Councillor's colleagues and noted they were looking forward to working together.
City of Ottawa	2024-08-30 10:45	Email	Outgoing	Planning Department (City of Ottawa)	Jeff Hankin	Hydro One emailed the City of Ottawa and indicated that they are planning to build a new transmission line that will support growing electricity demand in the Orleans area. Hydro One noted that they are beginning a Class EA for the Project under Hydro One's Class EA for Transmission Facilities. Hydro One provided the Notice of Commencement for the project.
City of Ottawa	2024-10-03 15:47	Email	Outgoing	Angela Taylor	Jeff Hankin	Hydro One emailed the City of Ottawa mentioning they got their email address from the Brian Coburn Extension EA web page. Hydro One informed the City of Ottawa that Hydro One is planning a project in the same area to install a new 115 kV pole line in the middle of the transmission corridor and attached a Notice of Commencement. Hydro One explained that they are just starting the EA process, with construction intended to begin in the winter of 2026. Hydro One noted that since the project involves only installing poles and staying within the corridor, there likely wouldn't be much overlap with the Brian Coburn Extension. However, they wanted to check if there were any comments or concerns from the City of Ottawa or if there was anyone else they should contact.
City of Ottawa	2024-10-07 11:39	Email	Outgoing	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	Hydro One emailed the City of Ottawa and thanked them for providing the concept plan for the road extension. Hydro One indicated they though they could accommodate the road crossing but would forward the plan to the Hydro One lines engineer to confirm. Hydro One stated they thought it would be a good idea to meet and discuss the projects once they were further along in the design process.
City of Ottawa	2024-10-07 10:16	Email	Incoming	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	The City of Ottawa emailed Hydro One and provided details regarding a road extension in the vicinity of the Project. The City of Ottawa provided a design drawing of the road extension and noted that their design includes crossing the hydro corridor to the north of Whispering Winds Way and that they hoped the poles could be placed outside of the crossing.
City of Ottawa	2024-10-07 10:16	Email	Incoming	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	The City of Ottawa emailed Hydro One to discuss the Brian Coburn Extension's interim phase, which involves extending two lanes of Brian Coburn Blvd west to the existing Renaud Road. They mentioned working with a consultant on the functional design and anticipate starting detailed design in 2026, with construction to follow, subject to funding. They shared a concept design and noted that the road alignment requires crossing the hydro corridor north of Whispering Winds Way and closer to Navan Road, expressing hope that poles can be placed outside this crossing. They offered to share concept plans and functional designs when available and invited a meeting if desired.
City of Ottawa	2024-10-09 11:15	Email	Incoming	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	The City of Ottawa emailed Hydro One noted they agreed with Hydro One's approach and advised they would share their functional design once it was further along.
City of Ottawa	2024-10-09 11:15	Email	Incoming	Angela Taylor	Brad Hewton, Jeff Hankin	The City of Ottawa emailed Hydro One and noted they agreed on the proposed approach.
City of Ottawa	2024-10-18 12:07	Email	Outgoing	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	Hydro One emailed the City of Ottawa and inquired if it was possible to get the road allowance width to ensure that the proposed pole locations are well away from the road during the preliminary design.
City of Ottawa	2024-10-18 14:15	Email	Incoming	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	The City of Ottawa emailed Hydro One and noted they were still working on the road width options but they would provide the worst-case option for reference.
City of Ottawa	2024-10-21 10:43	Email	Outgoing	Angela Taylor	Jeff Hankin	Hydro One emailed the City of Ottawa and thanked them.
City of Ottawa	2024-12-03 00:00	In-Person Meeting		Dhaneshwar Neemul (City of Ottawa), John Sevigny (City of Ottawa), Justin Armstrong (City of Ottawa), Kelly Livingstone (City of Ottawa), Kris Haynes (City of Ottawa), Stephen O'Brien (City of Ottawa), Tracey Larkin	Jeff Hankin, Lam Thanh, Leon Watson, Lithwick Sharon, Pham Quang	Hydro One met with City of Ottawa staff to introduce the project and discuss potential issues and real estate requirements.
City of Ottawa	2025-03-05 14:00	In-Person Meeting		Kate Hazelton (City of Ottawa), Tracey Larkin	Jeff Hankin, Kevin Bros, Lithwick Sharon	Hydro One met with the City of Ottawa to discuss real estate requirements and specific issues regarding the future Brian Coburn Extension, Chapel Hill South Park and Ride, storm water management ponds, and future developments in the area.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
City of Ottawa	2025-03-17 14:24	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Dudas of the City of Ottawa and followed up to provide an update on the Project. Hydro One indicated that the previous year, 2024, Hydro One initiated a Class EA for the Project and that initially they were planning to host a community open house in the fall, but due to a schedule shift were hosting the community open house on Wednesday, April 9, 2025 and invited the Councillor to attend. Hydro One provided the details for the community open house and noted that at the event, Hydro One would be providing details about the Class EA process, Project timelines, and preliminary information about construction. Hydro One stated that over the following days they would be sending out community open house invitations via mail, newspaper ads, radio and social media within the Project study area. Hydro One offered to arrange a phone meeting in advance of the community open house to discuss project details with the Councillor, if they were interested.
City of Ottawa	2025-03-17 14:24	Email	Outgoing	Catherine Kitts (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Kitts of the City of Ottawa and followed up to provide an update on the Project. Hydro One indicated that the previous year, 2024, Hydro One initiated a Class EA for the Project and that initially they were planning to host a community open house in the fall, but due to a schedule shift were hosting the community open house on Wednesday, April 9, 2025 and invited the Councillor to attend. Hydro One provided the details for the community open house and noted that at the event, Hydro One would be providing details about the Class EA process, Project timelines, and preliminary information about construction. Hydro One stated that over the following days they would be sending out community open house invitations via mail, newspaper ads, radio and social media within the Project study area. Hydro One offered to arrange a phone meeting in advance of the community open house to discuss project details with the Councillor, if they were interested.
City of Ottawa	2025-03-17 14:25	Email	Outgoing	Hollie Pullins, Jessica Bradley, Tiffany Botting	Shelly Reed	Hydro One emailed City of Ottawa Councillor Bradley and followed up to provide an update on the Project. Hydro One indicated that the previous year, 2024, Hydro One initiated a Class EA for the Project and that initially they were planning to host a community open house in the fall, but due to a schedule shift were hosting the community open house on Wednesday, April 9, 2025 and invited the Councillor to attend. Hydro One provided the details for the community open house and noted that at the event, Hydro One would be providing details about the Class EA process, Project timelines, and preliminary information about construction. Hydro One stated that over the following days they would be sending out community open house invitations via mail, newspaper ads, radio and social media within the Project study area. Hydro One offered to arrange a phone meeting in advance of the community open house to discuss project details with the Councillor, if they were interested.
City of Ottawa	2025-03-19 16:11	Email	Incoming	Laura Dudas (City of Ottawa)	Shelly Reed	Councillor Dudas office emailed Hydro One and thanked them for sharing the community open house information with the Councillor and noted that the Councillor planned to attend on April 9, 2025.
City of Ottawa	2025-03-20 10:06	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed City of Ottawa Councillor Dudas and thanked them for confirming their attendance at the Project community open house.
City of Ottawa	2025-03-25 15:50	Email	Outgoing	Adam Haga, Catherine Kitts (City of Ottawa)	Shelly Reed	Hydro One emailed the City of Ottawa and thanked them for sharing Project details in their newsletter.
City of Ottawa	2025-03-25 15:42	Email	Incoming	Adam Haga, Catherine Kitts (City of Ottawa)	Shelly Reed	The office of City of Ottawa Councillor Kitts emailed Hydro One and thanked them for providing the Project information, noting they would include the information and community open house details in their upcoming newsletter. The office of Councillor Kitts advised they would reach out to Hydro One if they felt a phone call was required prior to the event.
City of Ottawa	2025-03-25 13:18	Email	Incoming	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	The City of Ottawa emailed Hydro One and noted their functional design was still in draft but they plan to finalize it in the coming months and would share the CAD files when available. The City of Ottawa inquired if Hydro One had a timeline for construction.
City of Ottawa	2025-03-25 13:30	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed the City of Ottawa and advised they were planning to go to construction in the spring of 2026 but were hoping to determine their pole locations within the following weeks to inform material needs, access, and Stage 2 Archaeological Assessment locations. Hydro One noted that they needed the boundaries of the road allowance where it would cross underneath the transmission line to ensure the poles will be outside of the future roadway.
City of Ottawa	2025-03-25 11:49	Email	Outgoing	Angela Taylor, Brad Hewton, Frank McKinney (City of Ottawa)	Jeff Hankin	Hydro One emailed the City of Ottawa and indicated they were planning to hold a community open house for the Project on April 9, 2025 and provided the Notice of Community Open House. Hydro One advised they were working on finalizing the pole locations and requested CAD files of where the future roadway and the Project would overlap, noting they wanted to ensure that the pole spacing would not interfere with the crossing location.
City of Ottawa	2025-03-25 11:41	Email	Outgoing	Tracey Larkin	Jeff Hankin	Hydro One emailed the City of Ottawa to inform them about a community open house for the Orleans Area Reinforcement project scheduled for April 9th. They attached an invitation and encouraged the City of Ottawa to forward it to anyone interested.
City of Ottawa	2025-03-25 13:36	Email	Incoming	Tracey Larkin	Jeff Hankin	City of Ottawa emailed Hydro One informing them they will be away during the Community Open House but they will make sure to forward the invite to the appropriate staff.
City of Ottawa	2025-03-25 13:45	Email	Outgoing	Tracey Larkin	Jeff Hankin	Hydro One emailed the City of Ottawa and thanked them for passing on the information.
City of Ottawa	2025-03-26 08:53	Email	Incoming	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	The City of Ottawa emailed Hydro One and advised that their consultant could provide a CAD file in the following weeks.
City of Ottawa	2025-03-26 13:07	Email	Incoming	Tracey Larkin	Jeff Hankin	City of Ottawa emailed Hydro One asking them to address a question from one of their colleagues.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
City of Ottawa	2025-03-26 13:21	Email	Outgoing	Tracey Larkin	Jeff Hankin, Lithwick Sharon, Shelly Reed	Hydro One emailed the City of Ottawa to mention that while they hadn't planned on having City staff in attendance in a formal capacity, it would be beneficial to have a Development Representative present if questions related to the City's development plans arise. They welcomed anyone to come, view the display panels, and ask questions.
City of Ottawa	2025-04-02 14:25	Email	Outgoing	Hollie Pullins, Jessica Bradley, Tiffany Botting	Shelly Reed	Hydro One emailed the office of City of Ottawa Councillor Bradley and thanked them for following up.
City of Ottawa	2025-04-02 14:25	Email	Incoming	Hollie Pullins, Jessica Bradley, Tiffany Botting	Shelly Reed	The office of City of Ottawa Councillor Bradley emailed Hydro One and confirmed there was no need for a Project briefing before the community open house.
City of Ottawa	2025-04-10 14:55	Email	Incoming	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Stantec, on behalf of the City of Ottawa, emailed Hydro One and provided a CAD file of the proposed road corridor, noting to let them know if Hydro One required any additional information.
City of Ottawa	2025-04-11 11:59	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed Stantec, working on behalf of the City of Ottawa and thanked them for the CAD file.
City of Ottawa	2025-04-17 16:02	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed the office of Councillor Dudas of the City of Ottawa and indicated that the Project community open house went well, noting there were ten attendees and that feedback was positive.
City of Ottawa	2025-04-17 16:04	Email	Outgoing	Adam Haga, Catherine Kitts (City of Ottawa)	Shelly Reed	Hydro One emailed the office of Councillor Kitts of the City of Ottawa and indicated that the Project community open house went well, noting there were ten attendees and that feedback was positive.
City of Ottawa	2025-04-17 16:02	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed the office of Councillor Dudas of the City of Ottawa and provided an update regarding the community open house. Hydro One indicated they would continue to provide updates as the Project progresses.
City of Ottawa	2025-04-17 16:08	Email	Incoming	Adam Haga, Catherine Kitts (City of Ottawa)	Shelly Reed	The office of Councillor Dudas of the City of Ottawa emailed Hydro One and thanked them for the update. The office of Councillor Dudas noted they looked forward to receiving updates from the Project team.
City of Ottawa	2025-04-17 16:01	Email	Outgoing	Hollie Pullins, Jessica Bradley, Tiffany Botting	Shelly Reed	Hydro One emailed the office of City of Ottawa Councillor Bradley and indicated that the community house went well and that there was positive feedback from the community. Hydro One noted they would continue to provide updates as the Project progresses.
City of Ottawa	2025-04-29 10:18	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Stantec, working on behalf of the City of Ottawa, emailed Hydro One and provided details regarding the coordinate system of the provided CAD file.
City of Ottawa	2025-04-29 10:57	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed City of Ottawa thanking them for sending them a file.
City of Ottawa	2025-04-29 09:35	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed the City of Ottawa to inquire if they could provide the coordinate system used to create the drawings, as their engineers need this information to import the drawings correctly.
City of Ottawa	2025-09-16 13:00	Meeting		Jennifer Williams (City of Ottawa), Joshua White (City of Ottawa), Kelly Livingstone (City of Ottawa), Tracey Larkin	David Kroft, Gokhan Saltan, Jeff Hankin, Jordan Dyjack (POWER Engineers), Sara Schroeder, Sebastian Plascencia (POWER Engineers), Shelly Reed	Hydro One met virtually with the City of Ottawa to introduce proposed structure locations and discuss issues surrounding the Chapel Hill South Park and Ride light standards and the Brian Coburn extension.
City of Ottawa	2025-09-19 00:00	Email	Outgoing	Tracey Larkin (City of Ottawa)	Alissa Lee (Dillon), Jeff Hankin, Lithwick Sharon, Shelly Reed	Hydro One emailed the City of Ottawa and indicated they were working on preparing the draft ESR for the Project for public review. Hydro One stated that as part of the Class EA requirements, they are to make paper copies available in a public place, noting they had reached out to libraries and community centres who noted they would only host copies of City of Ottawa EAs. Hydro One inquired if the City of Ottawa knew of any locations where they could host a hard copy of the draft ESR for public review.
City of Ottawa	2025-09-23 15:03	Email	Incoming	Tracey Larkin (City of Ottawa)	Jeff Hankin	The City of Ottawa emailed Hydro One and noted they were still searching for the best contacts to provide Hydro One. The City of Ottawa indicated Hydro One's request had been forwarded to the Planning Public Engagement Team.
City of Ottawa	2025-09-26 15:26	Email	Outgoing	Angela Taylor, Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed the City of Ottawa and inquired if they had any drawings showing the grading of the area for the new road extension. Hydro One indicated they wanted to confirm their design will be outside of areas affected by the new roadway and transit.
City of Ottawa	2025-09-26 14:42	Email	Outgoing	Tracey Larkin (City of Ottawa)	Alissa Lee (Dillon), Jeff Hankin, Shelly Reed	Hydro One emailed the City of Ottawa and noted they were still exploring options for places to host paper copies of the draft ESR. Hydro One inquired if the City of Ottawa had any feedback for options.
City of Ottawa	2025-10-07 13:03	Email	Incoming	Tracey Larkin	Jeff Hankin	The City of Ottawa emailed Hydro One with suggestions for hosting a paper copy of the draft ESR, including reaching out to the library at Ben Franklin Place, community centers in Orleans, and the Ward councillor to help promote the Project and identify locations. The City of Ottawa mentioned contacting City Hall facilities and will provide updates if they receive any responses.
City of Ottawa	2025-10-07 13:06	Email	Outgoing	Tracey Larkin	Jeff Hankin	Hydro One emailed the City of Ottawa and thanked them, noting Hydro One would look into the options provided.

Organisations	Date/ time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
City of Ottawa	2025-10-15 15:48	Email	Outgoing	Jessica Bradley (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Bradley of the City of Ottawa and provided the Notice of Completion of draft ESR. Hydro One noted that the draft ESR summarizes the Class EA process, information collected, consultation undertaken, and potential environmental effects and mitigation measures planned. Hydro One indicated that the draft ESR would be available through the Project website but if the Councillor or their constituents required a printed copy, to please contact Hydro One. Hydro One advised that the draft ESR would be available for a public review and comment period from October 20, 2025 to November 19, 2025. Hydro One indicated that the Notice had been distributed to all residents and businesses within the Project Study Area, as well as shared through email to the Project contact list. Hydro One stated that a community open house would be hosted prior to construction to provide information regarding construction schedule and activities.
City of Ottawa	2025-10-15 15:47	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Dudas of the City of Ottawa and provided the Notice of Completion of draft ESR. Hydro One noted that the draft ESR summarizes the Class EA process, information collected, consultation undertaken, and potential environmental effects and mitigation measures planned. Hydro One indicated that the draft ESR would be available through the Project website but if the Councillor or their constituents required a printed copy, to please contact Hydro One. Hydro One advised that the draft ESR would be available for a public review and comment period from October 20, 2025 to November 19, 2025. Hydro One indicated that the Notice had been distributed to all residents and businesses within the Project Study Area, as well as shared through email to the Project contact list. Hydro One stated that a community open house would be hosted prior to construction to provide information regarding construction schedule and activities.
City of Ottawa	2025-10-15 15:46	Email	Outgoing	Catherine Kitts (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Kitts of the City of Ottawa and provided the Notice of Completion of draft ESR. Hydro One noted that the draft ESR summarizes the Class EA process, information collected, consultation undertaken, and potential environmental effects and mitigation measures planned. Hydro One indicated that the draft ESR would be available through the Project website but if the Councillor or their constituents required a printed copy, to please contact Hydro One. Hydro One advised that the draft ESR would be available for a public review and comment period from October 20, 2025 to November 19, 2025. Hydro One indicated that the Notice had been distributed to all residents and businesses within the Project Study Area, as well as shared through email to the Project contact list. Hydro One stated that a community open house would be hosted prior to construction to provide information regarding construction schedule and activities.
City of Ottawa	2025-10-15 09:01	Email	Outgoing	Angela Taylor (City of Ottawa), Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Stantec, working on behalf of the City of Ottawa, emailed Hydro One with plan drawings for the Renaud Road realignment functional design. Stantec offered to provide a CAD file to assist with layout if required.
City of Ottawa	2025-10-16 06:33	Email	Incoming	Adam Haga, Catherine Kitts (City of Ottawa)	Shelly Reed	The office of Councillor Kitts of the City of Ottawa emailed Hydro One and confirmed they were willing to share Project information with residents and requested a briefing on the Project. The office of Councillor Kitts proposed scheduling the briefing in the second week of November 2025.
City of Ottawa	2025-10-17 13:52	Email	Incoming	Laura Dudas (City of Ottawa)	Shelly Reed	Councillor Dudas' office of the City of Ottawa emailed Hydro One and thanked them for the information.
City of Ottawa	2025-10-17 16:15	Email	Outgoing	Laura Dudas (City of Ottawa)	Shelly Reed	Hydro One emailed Councillor Dudas' office of the City of Ottawa and noted they were welcome and wished the them a great weekend.
City of Ottawa	2025-10-17 12:43	Email	Outgoing	Tracey Larkin	Jeff Hankin	Hydro One emailed City of Ottawa and provided the Notice of Completion of draft ESR for the Project. Hydro One noted the draft ESR would be available through the Project website starting October 20, 2025 for a 30 day review period. Hydro One noted they looked forward to continuing to work with the City of Ottawa during detailed design to ensure there would be minimal impacts to City infrastructure.
City of Ottawa	2025-11-07 09:00	Meeting		Benoit Carriere, Keith Gauthier (City of Ottawa), Robert Lafointaine (City of Ottawa), Tracey Larkin	Gokhan Saltan, Jeff Hankin, Leon Watson, Lithwick Sharon, Mojtaba Jalambadani, Sara Schroeder	Hydro One met with representatives from the City of Ottawa to discuss line clearances over two light standards in the City of Ottawa OC Transpo Chapel Hill Park and Ride lot.
City of Ottawa	2025-11-07 15:02	Email	Outgoing	Angela Taylor (City of Ottawa), Frank McKinney (City of Ottawa)	Brad Hewton, Jeff Hankin	Hydro One emailed Stantec, working on behalf of the City of Ottawa, and requested a file in CAD format.
City of Ottawa	2025-11-10 09:49	Email	Outgoing	Angela Taylor (City of Ottawa)	Brad Hewton, Colin Mackenzie, Eric Shaw, Jeff Hankin	Stantec, working on behalf of the City of Ottawa, emailed Hydro One and provided a link to the Project design drawings, noting the link would expire in two days.
City of Ottawa	2025-11-17 11:49	Email	Outgoing	Angela Taylor (City of Ottawa)	Brad Hewton, Colin Mackenzie, Eric Shaw, Jeff Hankin	Hydro One emailed Stantec, working on behalf of the City of Ottawa and thanked them for sending the file, confirming they received it.

Organisations	Date/time	Type of communication	Origin	Stakeholders (organisation name)	Staff members	Summary
Fallingbrook Community Association	2025-03-25 14:22	Smart email	Outgoing	Zybina Richards (Fallingbrook Community Association)	Community Relations Inbox	Hydro One emailed people in the community members distribution list about the community open house on April 9, 2025.
Ottawa Field-Naturalists' Club (OFNC)	2025-03-25 14:22	Smart email	Outgoing	Owen Clarkin (Ottawa Field-Naturalists' Club (OFNC))	Community Relations Inbox	Hydro One emailed people in the community members distribution list about the community open house on April 9, 2025.
Fallingbrook Community Association	2025-10-15 15:56	Smart email	Outgoing	Zybina Richards (Fallingbrook Community Association)	Community Relations Inbox	Hydro One emailed the Project contact list with notification of the Project draft ESR.
Ottawa Field-Naturalists' Club (OFNC)	2025-10-15 15:56	Smart email	Outgoing	Owen Clarkin (Ottawa Field-Naturalists' Club (OFNC))	Community Relations Inbox	Hydro One emailed the Project contact list with notification of the Project draft ESR.

Date/time	Type of communication	Origin	Summary
2024-08-27 00:00	Flyer/ Unaddressed Notice		Dillon, on behalf of Hydro One, mailed the Project Notice of Commencement to property owners within the Project Local Study Area via Canada Post targeted admail on August 27, 2024.
2024-09-04 18:49	Email	Incoming	Hydro One emailed a member of the public and confirmed they had been added to the project contact list.
2024-09-06 13:40	Email	Incoming	A member of the public emailed Hydro One and indicated they had received a Notice regarding the Project. The member of the public stated that the map provided did not show the exact location of the transmission line and requested a better map showing the affected streets and neighbourhood.
2024-09-09 09:58	Email	Outgoing	Hydro One emailed a member of the public and indicated that if they visit the Project website they could download a PDF of the notice the member of the public received which shows the project map in higher resolution. Hydro One noted that the new transmission line will be in the centre of two existing transmission lines, in the existing hydro corridor. Hydro One stated that the new transmission line will be shorter than the existing lines, likely constructed using smaller poles. Hydro One noted that they are in the early stages of the Project and that they will be emailing updates as the Project progresses and that the member of the public had been added to the Project contact list. Hydro One indicated that they would be mailing out notices to any upcoming community open houses and that they were targeting the fall for the first open house.
2024-09-09 09:59	Email	Outgoing	Hydro One emailed a member of the public and thanked them for reaching out, noting that they had been added to the project contact list.
2024-09-10 13:29	Email	Outgoing	Hydro One emailed a member of the public and confirmed the Project area on the map provided, noting the proposed transmission line will follow the existing hydro lines.
2024-09-10 09:15	Email	Incoming	A member of the public emailed Hydro One and stated that they could not find a higher resolution map on the Project website. The member of the public requested confirmation of where the transmission line would pass through.
2024-09-11 07:56	Email	Incoming	A member of the public emailed Hydro One and thanked them for confirming the Project area on the map.
2025-03-20 00:00	Newspaper		The Notice of Community Open House for the Project was posted in the Thursday, March 20, 2025 edition of the Orleans Star. The Notice provided Project and event details for the April 9, 2025 community open house at the Notre-Dame-des-Champs Community Hall.
2025-03-24 00:00	Letter		Dillon, on behalf of Hydro One mailed the Project Notice of Community Open House and individualized letters to affected property owners via Canada Post registered mail during the week of March 24, 2025. The letters provided Project information, including anticipated property impacts.
2025-03-24 00:00	Flyer/ Unaddressed Notice		Dillon, on behalf of Hydro One, mailed the Project Notice of Community Open House to property owners within the Project Local Study Area via Canada Post targeted admail the week of March 24, 2025.
2025-03-24 00:00	Social Ad		The Notice of Community Open House for the Project was posted on social media ads from March 24 to April 9, 2025. The Notice provided Project and event details for the April 9, 2025 community open house at the Notre-Dame-des-Champs Community Hall.
2025-03-24 00:00	Other, specify in the description		The Notice of Community Open House for the Project was broadcast via radio ads on CRFA (580AM) and CJMJ-FM (Move 100.3) from March 24 to April 8, 2025. The broadcast included Project information and event details for the April 9, 2025 community open house at the Notre-Dame-des-Champs Community Hall.
2025-03-25 14:22	Smart email	Outgoing	Hydro One emailed people in the community members distribution list about the community open house on April 9, 2025.

Date/time	Type of communication	Origin	Summary
2025-03-25 14:22	Smart email	Outgoing	Hydro One emailed people in the community members distribution list about the community open house on April 9, 2025.
2025-03-28 14:31	Email	Incoming	A member of the public emailed the Community Relations inbox regarding the Project and inquired if a buried line was considered for the Project. The member of the public inquired what criteria was used to choose poles versus a buried line, the comparable costs, and the environmental failure rate for poles over buried lines. The member of the public requested a response before the community open house on April 9, 2025.
2025-04-09 00:00	Comment Form		A member of the public submitted a comment form at the Project community open house and noted that a Project team member explained the Project to him and was very knowledgeable and a good communicator and that the member of the public learned a lot.
2025-04-09 15:00	Community Information Centre (CIC)		Hydro One hosted a community open house in Ottawa at the Notre-Dame-des-Champs Community Hall on April 9, 2025, to discuss and present the Project.
2025-05-15 14:50	Email	Outgoing	Hydro One emailed a member of the public and apologized for the delay in response. Hydro One explained that burying transmission lines can be highly disruptive to the environment due to construction and can cost significantly more due to maintenance and shorter lifespan. Hydro One provided a link to the Project page and indicated the member of the public could leave comments there. Hydro One inquired if the member of the public wanted to be included on the Project contact list to receive future Project updates.
2025-05-15 14:50	Email	Outgoing	Hydro One emailed a member of the public and responded to the member of the public's questions. Hydro One indicated that burying transmission lines can be disruptive to the environment given the magnitude of construction work that would be required. Hydro One noted that burying transmission lines comes at significantly higher costs and presents maintenance challenges. Hydro One provided the link to the project website and advised that the member of the public could view the community open house materials and leave comments on the interactive map. Hydro One inquired if the member of the public wanted to be included on the Project contact list.
2025-05-15 17:12	Email	Incoming	A member of the public emailed Hydro One and noted that Hydro One's reply did not provide them with much information. The member of the public indicated that Hydro One did not provide a cost benefit analysis.
2025-10-10 15:42	Email	Outgoing	Hydro One emailed a member of the public and thanked them for their feedback, noting the full draft ESR was posted to the Project website and provided a link. Hydro One requested any additional comments be submitted by November 19, 2025.
2025-10-13 00:00	Flyer/ Unaddressed Notice		Hydro One distributed the Notice of Completion of draft ESR to residents and businesses within the Project Study Area via hand delivery the week of October 13, 2025. The Notice outlined that the draft ESR was available on the Project website starting October 20, 2025 for a 30 day review period and that paper copies were available upon request.
2025-10-15 15:56	Smart email	Outgoing	Hydro One emailed the Project contact list with notification of the Project draft ESR.
2025-10-15 15:56	Smart email	Outgoing	Hydro One emailed the Project contact list with notification of the Project draft ESR.
2025-10-15 15:56	Smart email	Outgoing	Hydro One emailed the Project contact list with notification of the Project draft ESR.

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2025-10-15 15:56	Smart email	Outgoing	Hydro One emailed the Project contact list with notification of the Project draft ESR.
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2025-10-15 15:56	Smart email	Outgoing	Hydro One emailed the Project contact list with notification of the Project draft ESR.
2025-10-15 14:15	Email	Incoming	A member of the public emailed Hydro One and indicated that they understood that Hydro One was following the law but that the Project struck them as an example of regulatory disfunction in Canada. The member of the public indicated they thought that an EA to upgrade an existing line and right of way was absurd. The member of the public requested that their feedback include their objection to government overreach and waste of money, time, and Hydro One personnel resources.
2025-10-15 09:14	Email	Incoming	A member of the public emailed Hydro One and indicated they had reviewed the Project's draft ESR and had no specific comments. The member of the public stated their support for the Project, noting that Orleans is growing and needs additional hydro capacity.
2025-10-15 11:34	Email	Incoming	A member of the public emailed the Hydro One Community Relations Inbox and provided questions regarding the Project, indicating they received a Notice. The member of the public's questions included why the Project was required now, if other routes or underground options were considered, how close the new towers would be to homes, schools, or parks, whether the work was being done on the existing towers or if new towers needed to be installed, whether there would be noise or traffic disruptions during construction, and how residents' feedback would be used before the Project plan is finalized.
2025-10-15 14:10	Email	Incoming	A member of the public emailed Hydro One and requested some clarification regarding Project details.
2025-10-16 09:05	Email	Outgoing	Hydro One emailed a member of the public to announce completion of the draft ESR for the Orléans Area Reinforcement Project, proposing a new 115 kV transmission line within the existing corridor from Hawthorne TS to Orléans TS and conversion of an existing 115 kV line to 230 kV to support current and future electricity needs. Hydro One noted the draft ESR summarized the EA process, consultation, and mitigation, and would be available online on October 20, 2025, with a public review and comment period from October 20 to November 19, 2025. Hydro One committed to carefully consider feedback and address concerns before finalizing the ESR for submission to the Ministry of the Environment, Conservation and Parks. Hydro One planned a Community Open House prior to construction to share schedule and activities.
2025-10-16 15:22	Email	Incoming	A member of the public emailed Hydro One and noted they did not have any objections or negative observations regarding the draft ESR.

Date/time	Type of communication	Origin	Summary
2025-10-20 15:46	Email	Outgoing	Hydro One emailed a member of the public and thanked them for their feedback on the draft ESR. Hydro One requested that if the member of the public had any additional comments to send them prior to November 19, 2025.
2025-10-20 15:48	Email	Outgoing	Hydro One emailed a member of the public and thanked them for submitting feedback regarding the draft ESR. Hydro One noted that they full draft ESR was posted to the Project website and provided a link. Hydro One requested any additional comments be provided before November 19, 2025.
2025-10-20 15:51	Email	Outgoing	Hydro One emailed a member of the public and responded to their questions regarding the Project. Hydro One provided responses outlining that the upgrade was recommended in 2022 by the Greater Ottawa Regional Planning Technical Working Group to keep up with the anticipated electricity load. Hydro One indicated that the Class EA requires that they compare and evaluate different routes if technically reasonable alternatives were identified and that Hydro One determined they could build the new transmission line largely within the existing transmission corridor between Hawthorne TS and Orleans TS, so developing and assessing alternative routes was not necessary for the Project. Hydro One stated that burying transmission lines can be highly disruptive to the environment given the magnitude of construction work that would be required and that it comes at significantly higher costs and presents maintenance challenges. Hydro One provided a link to the Project interactive map, noting that the map shows where the transmission corridor is located in relation to the member of the public's property. Hydro One indicated that there are already two transmission lines in the corridor and the third line Hydro One is proposing would be located between the two existing lines. Hydro One stated that the new line would require the installation of new towers, but they would not be as bis as the existing towers. Hydro One added that if the Project is approved they would develop a construction plan and keep the community informed of the progress. Hydro One noted that the full draft ESR was now posted on the Project website and provided a link requesting additional comments before November 19, 2025.
2025-10-20 15:53	Email	Outgoing	Hydro One emailed a member of the public and responded to the member of the public's inquiries regarding the Project. Hydro One indicated that there are currently two transmission lines within the corridor and that Hydro One is planning to upgrade one of those lines, which will not require alterations to the towers. Hydro One noted that they are also proposing to build a new transmission line, in between the two existing lines. Hydro One stated that the Class EA requires the proponent to compare and evaluate different routes if technically reasonable alternatives are identified. Hydro One added that they determined the proposed new transmission line can built largely within the existing corridor, so assessing alternative routes is not necessary for the Project. Hydro One provided a link to the interactive map, noting it seemed the member of the public's residence was well south of the corridor. Hydro One stated that the full ESR was available on the website and provided a link. Hydro One requested any additional comments before November 19, 2025.

Date/time	Type of communication	Origin	Summary
2025-10-22 16:09	Email	Outgoing	Hydro One emailed a member of the public and responded to their inquiries regarding the Project. Hydro One stated that healthy and safety are Hydro One's number one priority and they have a dedicated team that regularly monitors global studies on electro-magnetic fields (EMF) to ensure Hydro One infrastructure is built and maintained following best practices. Hydro One noted that Health Canada and the World Health organizations indicate that members of the public do not need to take precautions to protect from fields produced by extremely low frequencies such as transmission lines. Hydro One provided a link to the 2022 updated position from Health Canada and attached an EMF fact sheet and a list of international reviews on EMF. Hydro One confirmed that there is potential for noise disturbances during construction, and that these would most likely be the result of construction traffic, the use of heavy equipment, and that these disturbances will be temporary and limited to the immediate construction area. Hydro One indicated the construction activities will conform to the City of Ottawa Noise By-law and if there is need to perform work overnight, they will apply for a By-law exemption. Hydro One stated that there will be no new noise emitting equipment will be installed at the Hawthorne TS and that a noise assessment will be conducted at the Orleans TS to determine if additional mitigation measures will be needed. Hydro One indicated they are committed to reducing costs and that an estimate is being developed during Project planning to be submitted to the Ontario Energy Board for approval and that the Ontario Energy Board will determine what rate increase, if any, will be required.
2025-10-22 10:30	Email	Incoming	A member of the public emailed Hydro One and inquired if there were health effects related to transmission lines, noise impacts, and if there would be additional costs to Hydro One customers.
2025-10-25 15:59	Email	Incoming	A member of the public emailed Hydro One and indicated their opinion that the proposed new transmission line should be buried to avoid outages caused by severe weather.
2025-11-07 16:03	Email	Incoming	A member of the public emailed Hydro One and inquired about potential EMF exposure and levels related to the Project.
2025-11-11 15:59	Email	Outgoing	Hydro One emailed a member of the public and responded to their inquiries regarding potential EMF exposure related to the Project. Hydro One noted that they have a dedicated team that regularly monitors global studies to ensure Hydro One infrastructure is built and maintained following best practices. Hydro One indicated it is their approach to look to Health Canada and the World Health Organization for guidance and those organizations indicate that members of the public do not need to take precautions to protect against fields produced by extremely low frequencies such as transmission lines. Hydro One provided a link to Health Canada's 2022 position on EMF, and EMF factsheet, and a list of international reviews on EMF.

Appendix A-4

Duty to Consult Correspondence

Hydro One Networks Inc.
483 Bay Street
8th Floor South Tower
Toronto, Ontario M5G 2P5
HydroOne.com

6 September 2024

Amy Gibson
Manager, Indigenous Energy Policy
Ministry of Energy
77 Grenville St., 6th Floor
Toronto, ON M7A 2C1

Dear Ms. Gibson,

Hydro One is initiating a Class Environmental Assessment (Class EA) to build a new approximately 12 kilometres long 115 kilovolt (kV) transmission line in the City of Ottawa and convert an existing 115 kV transmission circuit to 220 kV. This Project is part of a plan to meet projected electricity load growth in the Orleans area in the coming years.

A map of the Project is attached to this letter.

The proposed transmission line will be within an existing transmission corridor between Hydro One's Hawthorne Transmission Station (TS) and Orleans TS. Most of the new line will consist of single poles such as those at the side of the road for distribution lines, with lattice structures at highway crossing and station entrance. No alteration to the transmission corridor is needed to convert the existing transmission line from 115 kV to 230 kV, but modifications inside Hawthorne TS and Orleans TS will be required to accommodate increased capacity, which will not impact the existing station footprints. The transmission line traverses a potentially sensitive area which we pereceive will trigger this Class EA process.

The Project will require Ontario Energy Board (OEB) Leave to Construct under Section 92 of the *Ontario Enery Board Act*.

Hydro One is requesting a determination from the Ministry of Energy as to whether the proposed Project triggers the Crown's constitutional Duty to Consult with respect to Indigenous and treaty rights, and if so, whether the Crown delegates procedural aspects of the Duty to Consult to Hydro One and the level of consultation required.

We are eager to advance the Project and respectfully request direction from the Ministry on this matter as quickly as possible. We

welcome the opportunity to discuss the Project further and would be happy to answer any questions you might have.

Sincerely,



Hydro One Networks Inc.
Karola Tóth,
Director, Environmental Services
416-996-6633
Email: Karola.Toth@HydroOne.com

Attachments:

- A project description.
- A shapefile of the proposed transmission line route.
- A shapefile of the start and end points attached to the email conveying this letter.

Hydro One Networks Inc.

483 Bay Street
8th Floor South Tower
Toronto, Ontario M5G 2P5

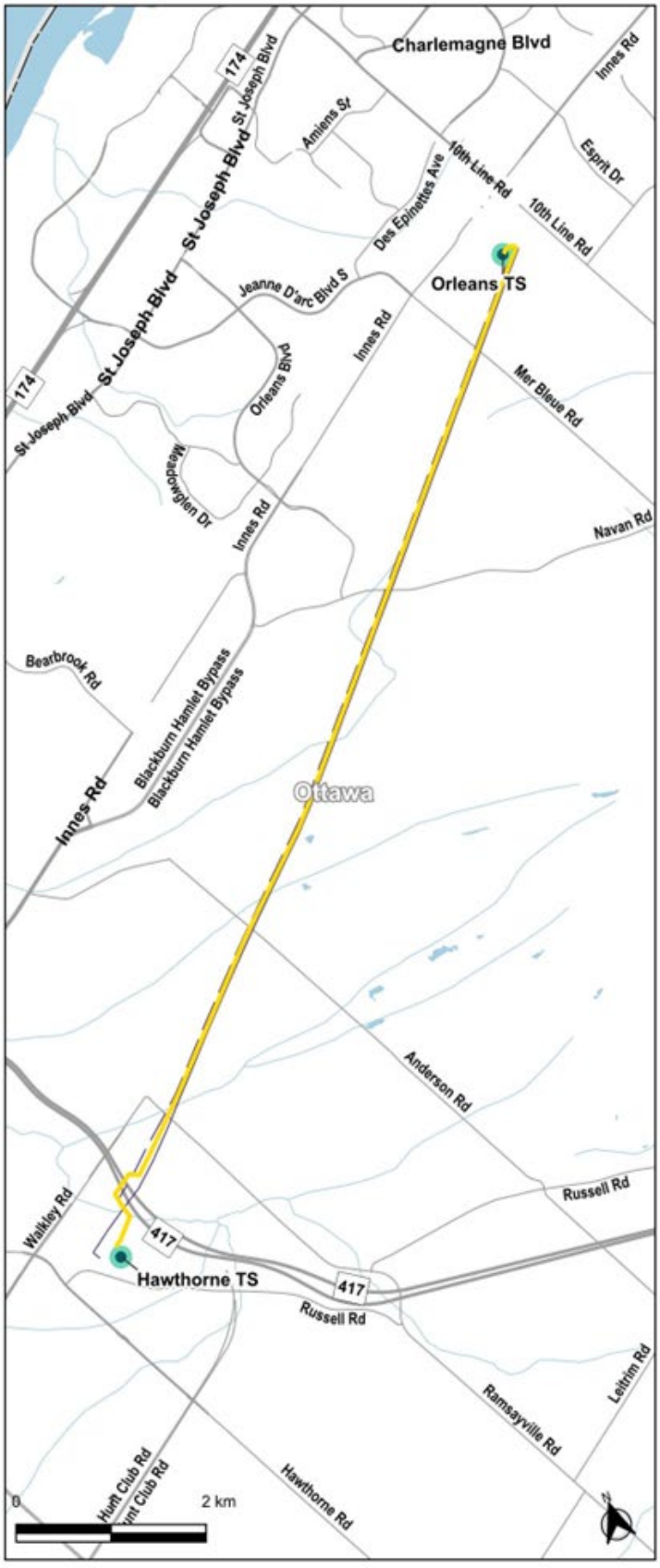
HydroOne.com

hydro one

Orleans Area Reinforcement

Map Legend

- Proposed 115 kV Transmission Line
- Existing Transmission Line to be Operated at 230 kV
- Existing Transmission Line
- Transformer Station
- Road
- Watercourse
- Waterbody



Ministry of Energy and Electrification
Energy Networks and Indigenous Policy Branch
Indigenous Energy Policy
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Tel: (416) 315-8641

Ministère de l'Énergie et de l'Électricité
Direction Générale des Réseaux Énergétiques et des Politiques Autochtones
Politique Énergétique Autochtones
77 Rue Grenville, 6e Étage
Toronto, ON M7A 2C1
Tel: (416) 315-8641

Ontario

December 13, 2024 VIA EMAIL

Karola Tóth
Director, Environmental Services
Hydro One Networks Inc.
438 Bay Street, 8th Floor South Tower
Toronto, Ontario M5G 2P5

Re: Letter of delegation for the Orleans Area Reinforcement Project

Dear Karola Tóth,

Thank you for your notifying the Ministry of Energy and Electrification (ENERGY) of Hydro One Networks Inc's (Hydro One) intention to commence a Class Environmental Assessment for Transmission Facilities (TF Class EA) for the proposed Orleans Area Reinforcement ("the Project").

ENERGY understands that the proposed Project will consist of building a new approximately 12 kilometre long 115 kilovolt (kV) transmission line in the City of Ottawa and convert an existing 115 kV transmission circuit to 220 kV. The proposed transmission line will be above ground within an existing transmission corridor between Hydro One's Hawthorne Transmission Station (TS) and Orleans TS and will cross about 850 metres of the Mer Bleue Bog. ENERGY also understands that construction could commence as early as March 2026, with a proposed in-service date of June 2028.

Duty to Consult Delegation

The Government of Ontario (the Crown) has a constitutional duty to consult and, where appropriate, accommodate Indigenous communities when it has knowledge of established or credibly asserted Aboriginal or treaty rights protected under section 35 of Canada's *Constitution Act 1982* (s. 35 rights) and contemplates conduct that might adversely affect those rights (duty to consult).This rights-based consultation with Indigenous communities is distinct from the requirement to consult with Indigenous

communities as interested parties under the TF Class EA. Nevertheless, these two processes can be integrated. Consultation conducted under the TF Class EA may be a means by which the Crown can be satisfied, partially or fully, that any concerns from Indigenous communities about adverse impacts to their s. 35 rights have been heard and, where appropriate, mitigated or accommodated.

Although the legal duty to consult remains with the Crown, the Crown may delegate the procedural aspects of consultation to project proponents. The procedural aspects of the duty to consult are those portions of consultation related to the process of consultation, such as sharing information, holding meetings and/or receiving comments. Project proponents are typically best positioned to speak to the specific planning, technical and environmental aspects of projects and, where appropriate, to consider possible ways to address or mitigate any concerns raised by Indigenous communities about potential impacts of the project. The Crown remains responsible for the substantive aspects of consultation such as providing oversight of the consultation process and ensuring the adequacy of consultation with communities to whom the duty to consult is owed.

ENERGY is the primary contact for the Crown's preliminary assessment of the duty to consult, while the Ministry of Environment, Conservation and Parks (MECP) retains overall responsibility for the Class EA process and the administration of the *Environmental Assessment Act* and its regulations. MECP is also the primary contact for questions regarding the consultation requirements of the TF Class EA. Accordingly, ENERGY may be involved early in the project planning process for facilities subject to the TF Class EA to determine whether there may be a duty to consult, and if so, to identify the communities to consult and to delegate to proponents the procedural aspects of consultation.

Based on ENERGY's review of the information provided by Hydro One with respect to the Project, including the nature and location of the Project and anticipated environmental effects, and the Crown's current understanding of asserted or established s. 35 rights in the Project area, ENERGY has determined that the Crown owes a duty to consult to Indigenous communities in respect of the Project. On behalf of the Crown, ENERGY is delegating, through this letter, the procedural aspects of any consultation owed in respect of the Project to Hydro One.

Please see the appendix for detailed information on the respective roles and responsibilities of the Crown and Hydro One regarding the TF Class EA. You should seek guidance from ENERGY if you are unclear about your roles and responsibilities under this process.

Preliminary Assessment

Based on the Crown's assessment of established and credibly asserted s. 35 rights and understanding of potential Project impacts at this time, Hydro One should consult with the following Indigenous communities:

Community	Level of Consultation	Contact Information *(Note: contact information is believed to be accurate, however, personnel may have changed)*
Algonquins of Ontario	Medium	31 Riverside Drive, Suite 101 Pembroke ON K8A 8R6 T: (613) 735-3759 algonquins@tanakiwin.com
Algonquins of Pikwàkanagàn First Nation	Medium	1657A Mishomis Inamo Pikwàkanagàn ON K0J 1X0 T: (613) 625-2800 consultation@pikwakanagan.ca
Kitigan Zibi Anishinabeg First Nation	Low	1 Paganakomin Mikan Street, P.O. Box 309 Maniwaki, QC J9E 3C9 T: (819) 449-5170 dylan.whiteduck@kza.qc.ca

Consultation at the low end of the consultation spectrum requires Hydro One to, at minimum, notify the communities about the Project; share information about the Project and provide an opportunity for the community to comment. Any issues raised by the community should be discussed and considered in light of the potential to impact rights, with mitigation or other forms of accommodation identified where appropriate. The information provided to communities and the time for its review, should be sufficient for communities to determine if the Project may impact their rights. Hydro One's notice of the Project to the community could include a request to confirm whether the communities believe the Project will impact their rights and accordingly whether they are interested in being consulted. Hydro One should be able to demonstrate how any concerns were considered and responded to, and, as appropriate, what impact they had on the Project decisions moving forward.

Consultation at the medium level of the consultation spectrum includes the requirements listed in the preceding paragraph, and should also include, at minimum, opportunities for the communities to share their views about potential impacts should the communities so choose; and offer capacity funding to support meaningful participation by the communities in the consultation process, as appropriate. More detailed information on the roles and responsibilities delegated to Hydro One is

available in the appendix.
Should no response be received from the communities noted above, Hydro One should continue to provide high-level notifications in accordance with Project stage milestones which include changes to the scope of the Project, if any. Should information become available throughout the consultation process to suggest that Project impacts may warrant a deeper level of consultation, Hydro One must inform ENERGY so that updated guidance may be provided.

This consultation list is subject to change based on new information becoming available or changes to the scope of the Project. Indigenous communities may make new rights assertions at any time, and further Project-related developments can occur that may require additional communities to be notified and/or consulted. A community may also indicate they are not interested in being consulted in respect of the Project. If any of the above should occur, Hydro One must notify ENERGY immediately so that updates to the consultation list can be assessed. Additionally, we recommend that you contact ENERGY if you are unsure about how to respond to a concern raised by an Indigenous community, particularly if the concern relates to a potential adverse impact on established or asserted s.35 rights.

Acknowledgement

Through receipt of this letter, Hydro One acknowledges this Crown delegation and the procedural consultation responsibilities in this letter and detailed in the appendix. If you have any questions, you may contact Hilary Ferguson, Senior Policy Advisor, Indigenous Energy Policy Unit, Ministry of Energy at Hilary.Ferguson@ontario.ca.

I trust that this information provides clarity and direction regarding the respective roles of the Crown and Hydro One. If you have any questions about this letter or require any additional information, please contact me directly.

Sincerely,

Shannon McCabe

Shannon McCabe,
A/Manager
Strategic Indigenous Initiatives
Ontario Ministry of Energy and Electrification

C: Sean Tutak, Senior Manager, Indigenous Relations, Hydro One
John Chadwick, Senior Manager, Environmental Services, Hydro One
Samir Adkar, Director, Energy Networks and Indigenous Policy, Ministry of

Energy and Electrification
Amy Gibson, Manager, Indigenous Energy Policy, Ministry of Energy and Electrification
Nick Colella, Manager, Environmental Assessment Services, Ministry of Environment, Conservation and Parks

APPENDIX: ROLES AND RESPONSIBILITIES OF THE PROPONENT AND THE CROWN RELATED TO CONSULTATION WITH INDIGENOUS COMMUNITIES

Roles and Responsibilities Delegated to the Proponent (Hydro One)

Please refer to the letter above for specific guidance on the Project. On behalf of the Crown, please be advised that your responsibilities as Proponent for this Project also include:

- providing notice and information about the Project to the Indigenous community/communities ("communities"), with sufficient detail and at a stage in the process that allows the communities to prepare their views on the Project and, if appropriate, for changes to be made to the Project. This can include:
    - accurate, complete and plain language information including a detailed description of the nature and scope of the Project and translations into Aboriginal languages where appropriate, such as:
        - maps of the Project location and any other affected area(s);
        - information about the potential negative effects of the Project on the environment, including their severity, geographic scope and likely duration. This can include, but is not limited to, effects on ecologically sensitive areas, water bodies, wetlands, forests, species at risk and/or the habitat of species at risk;
        - a description of other provincial or federal approvals that may be required in relation to the Project;
        - whether the Project is on privately owned or Crown controlled land;
        - any information the Proponent may have on the potential effects of the Project, including particularly any likely adverse impacts on their s. 35 rights;
    - a written request asking the Indigenous communities to provide in writing or through a face-to-face meeting:
        - any information available to the communities that should be considered by the Proponent when preparing the Project documentation;
        - any information the communities may have about any potential adverse impacts on their Aboriginal or treaty rights;
        - any suggested measures for avoiding, minimizing or mitigating potential adverse impacts on their s. 35 rights;
        - information about how information provided by the Indigenous communities as part of the consultation process will be collected, stored, used, and shared for their approval;
    - identification of any mechanisms that will be applied to avoid, minimize or mitigate potential adverse impacts on their s. 35 rights;
    - identification of a requested timeline for response from the communities and the anticipated timeline for meeting Project milestones following each notification;

    - an indication of the Proponent's availability to discuss the process and provide further information about the Project;
    - the Proponent's contact information; and
    - any additional information that might be helpful to the communities;
- following up, as necessary, with Indigenous communities to ensure they received Project notices and information and are aware of the opportunity to comment, raise questions or concerns and identify potential adverse impacts on their established or asserted s. 35 rights;
- gathering information about how the Project may adversely affect s.35 rights including land use and traditional knowledge;
- bearing the reasonable costs associated with the procedural aspects of consultation (paying for meeting costs, making technical support available, etc.) and considering reasonable requests by communities for capacity funding to support a community's participation in the consultation process;
- considering and responding to comments and concerns raised by Indigenous communities and answering questions about the Project and its potential impacts on s. 35 rights;
- as appropriate, discussing and implementing changes to the Project in response to concerns raised by Indigenous communities. This could include modifying the Project to avoid or minimize an impact on a s. 35 right (e.g., altering the season when construction will occur to avoid interference with mating or migratory patterns of wildlife); and
- informing Indigenous communities about how their concerns were taken into consideration and whether the Project proposal was altered in response. It is considered a best practice to directly provide the Indigenous community with a copy of the Consultation record as part of this step for verification.

If you are unclear about the nature of a concern raised by an Indigenous community, you should seek clarification and further details from the community, provide opportunities to listen to community concerns and discuss options, and clarify any issues that fall outside the scope of the consultation process. These steps should be taken to ensure that the consultation process is meaningful and that concerns are heard and, where appropriate, addressed.

You can also seek guidance from the Crown at any time. It is recommended that you contact the Crown if you are unsure about how to deal with a concern raised by an Indigenous community, particularly if the concern relates to a potential adverse impact on established or asserted s.35 rights.

Should information become available throughout the consultation process to suggest that Project impacts will be significant enough to warrant a deeper level of consultation, you must inform the Crown so that updated guidance can be provided.

Should information be provided that may impact the list of communities identified for consultation by the Crown, you must notify ENERGY immediately.

The consultation process must maintain sufficient flexibility to respond to new information, and we request that you make all reasonable efforts to build positive relationships with all Indigenous communities potentially affected by the Project. If a community is unresponsive to efforts to notify and consult, you should nonetheless make attempts to update the community on the progress of the Project, the environmental assessment (if applicable) and other regulatory approvals.

If sub-contractors are retained by the Proponent to support the procedural aspects of consultation undertaken by the Proponent, Indigenous communities should be made aware of the sub-contractor's role and the Proponent should inform the Crown if any issues concerning established or asserted s. 35 rights arise.

If you reach a business arrangement with an Indigenous community that may affect or relate to the Crown's duty to consult, we ask that that Crown be advised of those aspects of such an arrangement that may relate to or affect the Crown's consultation obligations, and that the community itself be apprised of the Proponent's intent to so-apprise the Crown. Whether or not any such business arrangements may be reached with any community, the Crown expects the Proponent shall fulfill all of its delegated procedural consultation responsibilities to the satisfaction of the Crown.

If the Crown considers that there are outstanding issues related to consultation, the Crown may directly undertake additional consultation with Indigenous communities, which could result in delays to the Project. The Crown reserves the right to provide further instructions or add communities throughout the consultation process.

Roles and responsibilities assumed directly by the Crown

The role of the Crown in fulfilling any duty to consult in relation to this Project includes:

- identifying for the Proponent, and updating as appropriate, the Indigenous communities to consult for the purposes of fulfillment of the Crown's duty to consult;
- carrying out, from time to time, any necessary assessment of the extent of consultation or, where appropriate, accommodation, required for the Project to proceed;
- supervising the aspects of the consultation process delegated to the Proponent;
- determining in the course of Project approvals whether the consultation of Indigenous communities was sufficient;
- determining in the course of Project approvals whether accommodation of Indigenous communities, if required, is appropriate and sufficient.

Consultation Record

It is important to ensure that all consultation activities undertaken with Indigenous communities are fully documented and the Proponent shall prepare a consultation record. This includes all attempts of the Proponent (or any sub-contractors or consultants retained by the Proponent to support the procedural aspects of consultation undertaken by the Proponent) to notify or consult the community, all interactions with and feedback from the community, and all efforts to respond to community concerns. The Crown and Crown regulators require a complete consultation record in order to assess whether Aboriginal consultation has been adequately discharged. The consultation record should include, but not be limited to, the following:

- a list of the identified Indigenous communities that were contacted;
- records that reflect that notices and Project information were distributed by the proponent to, and received by, the Indigenous communities and were received (via courier slips, follow up phone calls, etc.). Where a community has been non-responsive to multiple efforts to contact the community, a record of such multiple attempts and the responses or lack thereof;
- a written summary of consultations with Indigenous communities and appended documentation such as copies of notices, any meeting summaries or notes including dates, where and when the meeting took place and who attended, and any other correspondence (e.g., letters and electronic communications sent and received, dates and records of all phone calls);
- Sub-contractors, if any, that are retained by the Proponent to support the procedural aspects of consultation undertaken by the Proponent, information about their role and how Indigenous communities were made aware of the sub-contractor's role as well as any issues that may have arisen concerning established or asserted s. 35 rights.
- responses and information provided by Indigenous communities during the Consultation process. This includes information on Aboriginal or treaty rights, traditional lands, claims, or cultural heritage features and information on potential adverse impacts by the Project on such Aboriginal or treaty rights and measures for avoiding, minimizing or mitigating potential adverse impacts to those rights; and
- a summary of the rights/concerns, and potential adverse impacts of the Project on Aboriginal or treaty rights or to sites of cultural significance (e.g., burial grounds, archaeological sites), identified by Indigenous communities; how comments or concerns were considered or addressed by the proponent; and any changes to the Project as a result of consultation, such as:
    - changing the Project scope or design;
    - changing the timing of proposed activities;
    - minimizing or altering the site footprint or location of the proposed activity;
    - avoiding impacts to the Aboriginal interest;

- environmental monitoring; and
- other mitigation strategies.

As part of its oversight role, the Crown may, at any time during the consultation and approvals stage of the Project, request records from the Proponent relating to consultations with Indigenous communities. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act,* however, may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws.

It is considered a best practice to share the consultation record with the Indigenous community prior to finalizing it to ensure it is a robust and accurate record of the consultation process.

Appendix B

Appendix B-1

Stage 1 Archaeological Assessment

ORIGINAL REPORT

Stage 1 Archaeological Assessment
Orleans Area Reinforcement

Part Lots 1 to 7 and 11, Concession 3 Ottawa Front; Part Lots 1 and 2, Concession 6 Rideau Front; Renaud Road Allowance, Concession 3 Ottawa Front; Road Allowance at Lots 14 and 15, between Concessions 3 and 4 Ottawa Front; Anderson Road Allowance between Lots 15 and 16, Concession 4 Ottawa Front; Ramsayville Road Allowance, Lot 1, between Concession 6 Rideau Front and Concession 4 Ottawa Front, Geographic Township of Gloucester; and Part Lots 1 and 2, Concession 11, Geographic Township of Cumberland, Former County of Carleton, City of Ottawa

Prepared For:

Alissa Lee
Dillon Consulting Limited
177 Colonnade Road, Suite 101
Ottawa, Ontario
K2E 7J4
alee@dillon.ca

June 23, 2025

Nadine Kopp (License Number P378)
PIF: P378-0106-2024

Report: MH1341-REP.01R1

Matrix Heritage Inc.
6131 Perth Street Richmond
Ontario K0A 2Z0
Tel: (613) 807-2071
www.MatrixHeritage.ca

1.0 Executive Summary

Matrix Heritage, on behalf of Dillon Consulting Limited (Dillon), conducted a Stage 1 Archaeological Assessment of the proposed Hydro One Networks Inc. (HONI) Orleans Area Reinforcement Project. This significant infrastructure project involves converting an existing 115 kV circuit to a 230 kV circuit from the Hawthorne Transformer Station (TS) to the Orleans TS and constructing a new 11-kilometre, 115 kV pole line along existing Hydro One easements.

The assessed corridor (Map 1 and 2) crosses lands in the Geographic Townships of Gloucester and Cumberland, City of Ottawa, Ontario. Specifically, the study area includes Part Lots 1 to 7 and 11, Concession 3 Ottawa Front; Part Lots 1 and 2, Concession 6 Rideau Front; Renaud Road allowance on Concession 3 Ottawa Front; Road allowance at Lots 14 and 15, between Concessions 3 and 4 Ottawa Front; Anderson Road allowance between Lots 15 and 16, Concession 4 Ottawa Front; and Ramsayville Road allowance at Lot 1, between Concession 6 Rideau Front and Concession 4 Ottawa Front, Geographic Township of Gloucester; and Part Lots 1 and 2, Concession 11, Geographic Township of Cumberland.

This archaeological assessment is mandated by the comprehensive Class Environmental Assessment (Class EA) framework for transmission facilities and complies with the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists* (2011). Additional areas within the project falling under federal jurisdiction, notably those owned by the National Capital Commission (NCC), are addressed under separate documentation, following federal guidelines.

The Stage 1 assessment comprised a review of the MCM archaeological database, examination of environmental, historical, and archaeological literature, primary historical research including land registry records and historical mapping, as well as a site visit inspection conducted on May 8, 2025. Permission to access the property was provided by the proponent with no limitations. Weather conditions were overcast, breezy, and cool with a temperature of around 5°C. Surface visibility at the time of the visit was excellent. This Stage 1 background assessment finds that, based on criteria outlined in the *Standards and Guidelines for Consultant Archaeologists* Section 1.3 (2011), the study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential (Map 3).

Based on the results of this investigation it is recommended:

1. The study area, as delineated in Map 1, exhibits archaeological potential requiring Stage 2 archaeological assessment.

2. Additional Stage 1 archaeological assessment will be required if any project impacts are planned beyond the limits of the Stage 1 project area as delineated in Map 1.

3. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the pedestrian survey method at 5 m intervals in all agricultural fields as per Section 2.1.1 (MCM 2011) (approximate area shown in green in Maps 4 to 11). Appropriate field conditions must be achieved prior to assessment as per Section 2.1.1. (MCM 2011).

4. In areas that cannot be ploughed (as per Section 2.1.2, Standard 1. MCM 2011) (approximate area shown in blue in Maps 4 to 11), a Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals, as per Section 2.1.2 (MCM 2011).

5. The extent of permanently wet areas and areas of deep and pervasive disturbance, as shown on Map 4 to 11 should be confirmed during Stage 2 assessment. As per section 2.1 Standards 2.a.i. and 2.b. (MCM 2011), should these areas meet the criteria for exclusion at the time of assessment, survey of these areas is not required.

6. Areas previously assessed and recommended do not require Stage 2 archaeological assessment under the *Standards and Guidelines for Consultant Archaeologists* (2011), where the ministry has accepted the Stage 1 report into the Ontario Public Register of Archaeological Reports (as shown in light blue on Maps 4 to 11), require no further archaeological assessment as per Section 2.1, Standard 2.c.

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3.0 Project Personnel

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4.0 Project Context

4.1 Development Context

Matrix Heritage, on behalf of Dillon Consulting Limited (Dillon), conducted a Stage 1 Archaeological Assessment of the proposed Hydro One Networks Inc. (HONI) Orleans Area Reinforcement Project. This significant infrastructure project involves converting an existing 115 kV circuit to a 230 kV circuit from the Hawthorne Transformer Station (TS) to the Orleans TS and constructing a new 11-kilometre, 115 kV pole line along existing Hydro One easements.

The assessed corridor (Map 1) crosses portions of the Geographic Townships of Gloucester and Cumberland, City of Ottawa, Ontario. Specifically, the study area includes Part Lots 1 to 7 and 11, Concession 3 Ottawa Front; Part Lots 1 and 2, Concession 6 Rideau Front; Renaud Road allowance on Concession 3 Ottawa Front; Road allowance at Lots 14 and 15, between Concessions 3 and 4 Ottawa Front; Anderson Road allowance between Lots 15 and 16, Concession 4 Ottawa Front; and Ramsayville Road allowance at Lot 1, between Concession 6 Rideau Front and Concession 4 Ottawa Front, Geographic Township of Gloucester; and Part Lots 1 and 2, Concession 11, Geographic Township of Cumberland.

This archaeological assessment is mandated by the comprehensive Class EA framework for transmission facilities and complies with the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Additional areas within the project falling under federal jurisdiction, notably those owned by the National Capital Commission (NCC), are addressed under separate documentation, following federal guidelines.

The study area corridor for the assessment was defined as a 20 m buffer on either side of the corridor centreline as provided by Dillon (Map 2). Confirmation of the acceptance of this buffer and approach was provided by MCM (see Supplementary Documentation). Additional Stage 1 archaeological assessment will be required if any project impacts are planned beyond the limits of the Stage 1 project area.

Permission to access the study area was coordinated and provided by the proponent with no limitations.

4.2 Historical Context

4.2.1 Historic Documentation

Notable histories of the Anishinabe Algonquin include: *Algonquin Traditional Culture* (Whiteduck 1995) and *Executive Summary: Algonquins of Golden Lake Claim* (Holmes and Associates 1993a).

The study area is located within the City of Ottawa which is in the former County of Carleton. There is a significant amount of literature available concerning the history and development of the City of Ottawa. Some of these sources include; the *Illustrated Historical Atlas of Carleton County* (Belden & Co. 1879), *the Carleton Saga* (Walker and Walker 1968), *Ottawa, An Illustrated History* (Taylor 1986), *Where Rivers Meet: An Illustrated History of Ottawa* (Bond 1984).

4.2.2 Pre-Contact Period

Naming

The Anishinabe Algonquin name for themselves is Anishinabeg, which means "human being." The word Algonquin supposedly came from the Malecite word meaning "they are our relatives", which French explorer Samuel de Champlain recorded as “Algoumequin” in 1603. The name stuck and the term “Algonquin” refers to those groups that have their traditional lands around the Ottawa Valley. Some confusion can arise regarding the term “Algonquian” which refers to the broader language family, of which the dialect of the Algonquin is one. The Algonquian linguistic group stretches across a significant part of North America and comprises scores of Nations related by language and customs.

Early Human Occupation

Indigenous histories speak of the advance and retreat of glaciers and of their presence on the land from time immemorial. Presently, the earliest human occupation of the Americas has been archaeologically documented to predate 14,000 years ago. However, at this time much of eastern Canada was covered by thick and expansive glaciers and the Laurentide Ice Sheet of the Wisconsinian glacier blanketed southwestern Ontario until about 12,500 B.P. At this time the receding glacial terminus was at the southern edge of present-day Georgian Bay and melt water in the region created Early Lake Erie and Lake Iroquois (the basin of today’s Lake Ontario).

The earliest archaeologically recovered evidence in northeastern North America dates from circa 11,000 B.P. and relates to groups archaeologically referred to as Paleo people. For Ontario the Paleo period is divided into the Early Paleo period (11,000 - 10,400 B.P.) and the Late Paleo period (10,500-9,400 B.P.), based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario (Ellis and Deller 1990), likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999).

Archaeological information suggests that ancestral Anishinabe Algonquin people lived in the region for at least 8,000 years before the Europeans arrived in North America. This traditional territory is generally considered to encompass the Ottawa Valley on both sides of the river, in Ontario and Quebec, from the Rideau Lakes to the headwaters of the Ottawa River. The region is dominated by the Canadian Shield which is characterized by low rolling land of Boreal Forest, rock outcrops and muskeg with innumerable lakes, ponds, and rivers. This environment dictated much of the traditional culture and lifestyle of the Anishinabe Algonquin peoples. At the time of European contact, the Anishinabe Algonquin territory was bounded on the east by the Montagnais people, to the west by the Nipissing and Ojibwa, to the north by the Cree, and to the south by the lands of the Iroquois.

Archaic Period

As the climate continued to warm, the glacial ice sheet receded further northwards allowing areas of Eastern Ontario to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.).

Archaic populations generally remained hunter-gatherers with an increasing emphasis on fishing. People began to organise themselves into small family groups operating in a seasonal migration, congregating annually at resource-rich locations for social, religious, political, and economic activities. Often sites from this time are located on islands, waterways, and at narrows on lakes and rives where caribou and deer would cross, suggesting a common widespread use of the birchbark canoe that was so prominent in later history (McMillan 1995).

In the Boreal forests of the Canadian Shield, the Archaic period is referred to as the “Shield Archaic,” characterized by adaptations to a forested environment with a focus on hunting, fishing, and gathering, using stone tools made from locally available materials. In contrast, the mixed forests to the south are associated with the “Laurentian Archaic,” marked by a broader range of subsistence activities, including fishing with nets and woodworking using ground-stone tools such as axes and gouges.

Woodland / Pre-European Contact Period

Generally, the introduction of the use of ceramics marks the transition from the Archaic Period into the Woodland period. Populations continued to participate in extensive trade networks that extended across much of North America. Social structure appears to have become increasingly complex with some status differentiation recognized in burials. Towards the end of this period domesticated plants were gradually introduced to the Ottawa Valley region. This coincided with other changes including the development of semi-permanent villages. The Woodland period is commonly divided into the Early Woodland (1000 – 300 B.C.), Middle Woodland (400 B.C. to A.D. 1000), and the Late Woodland (A.D. 900 – European Contact) periods.

The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). Early Woodland sites in the Ottawa Valley region include Deep River (CaGi-1) (Mitchell 1963), Constance Bay I (BiGa-2) (Watson 1972), and Wyght (BfGa-11) (Watson 1980). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). Some of the best documented Middle Woodland Period sites from the region are from Leamy Lake Park (BiFw-6, BiFw-16) (Laliberté 1999). On the shield and in other non-arable environments, including portions of the Ottawa Valley, there seems to remain a less sedentary lifestyle often associated with the Algonquin groups noted in the region at contact (Wright 2004:1485–1486).

The Woodland Period Algonquin peoples had a social and economic rhythm of life following an annual cyclical pattern of seasonal movements. Subsistence was based on small independent extended family bands operating an annual round of hunting, fishing, and plant collecting. Families returned from their winter hunting camps to rejoin with other groups at major fishing sites for the summer. The movements of the people were connected with the rhythm of the natural world around them allowing for efficient and generally sustainable subsistence. Their annual congregations facilitated essential social, political, and cultural exchange.

The Algonquin peoples also established significant trade networks and a dominance of the Ottawa River (in Algonquian the “Kitchissippi”) and its tributaries. The trade networks following the Ottawa River connected the Algonquins to an interior eastern waterway via Lake Timiskaming and the Rivière des Outaouais to the St. Maurice and Saguenay as well as the upper Great Lakes and interior via Lake Nipissing and Georgian Bay. From there their Huron allies would distribute goods to the south and west. The Iroquois and their allies along the St. Lawrence River and the lower Great Lakes dominated the trade routes on those waterways to the south thus leading to a rivalry that would escalate with European influence (Moreau et al. 2016).

4.2.3 Contact Period

European Contact

The addition of European trade goods to artifacts of native manufacture in archaeological material culture assemblages’ ushers in a new period of history. Archaeological data shows that European goods penetrated the Canadian Shield as early as 1590 and the trade was well entrenched by 1600

through the trade routes established by the Anishinabe Algonquin peoples along the Ottawa River (Moreau et al. 2016) and their neighbouring allies the Michi Saagiig and the Chippewa nations.

The first recorded meeting between Europeans and Anishinabe Algonquin occurred at the first permanent French settlement on the St. Lawrence at Tadoussac in the summer of 1603. Samuel de Champlain came upon a party of Algonquins, the Kitchissippirini under Chief Tessouat, who were celebrating a recent victory over the Iroquois with their allies the Montagnais and Malecite (Hessel 1993). Champlain made note of the "Algoumequins" and his encounter with them, yet the initial contact between Champlain and the Algonquin people within their own territory in the Ottawa Valley was during his travels of exploration in 1613.

By the time of Champlain's 1613 journey, the Anishinabe Algonquin people along the Ottawa River Valley were important middlemen in the rapidly expanding fur-trade industry. Champlain knew this and wanted to form and strengthen alliances with the Algonquins to further grow the fur-trade, and to secure guidance and protection for future explorations inland and north towards a potential northwest passage. Further, involving the Algonquins deeper in the fur trade promised more furs filling French ships and more Indigenous dependence on European goods. For their part, the French offered the promise of safety and support against the Iroquois to the south.

Early historical accounts note many different Algonquian speaking groups in the region at the time. Of note for the lower Ottawa Valley area were the Kichesipirini (focused around Morrison Island); Matouweskarini (upstream from Ottawa, along the Madawaska River); Weskarini (around the Petite Nation, Lièvre, and Rouge rivers west of Montreal), Kinounchepirini (in the Bonnechere River drainage); and the Onontchataronon, (along the South Nation River) (Holmes and Associates 1993a; Morrison 2005; Pilon 2005). However, little archaeological work has been undertaken regarding Anishinabe Algonquin at the time of contact with Europeans (Pilon 2005).

Fur Trade, Early Contact with the French

Champlain understood that the Anishinabe Algonquin would be vital to his eventual success in making his way inland, exploring, and expanding the fur trade. This was partially due to their language being the key to communication with many other groups, as well as their dominance over trade routes surrounding the Ottawa River and the connection with the Huron in the west.

When the French arrived, there was already a vast trade network in place linking the Huron and the Algonquins, the Michi Saagiig and Chippewa, extending from the Saguenay to Huronia. This route existed at least from the very early beginnings of agricultural societies in Ontario around A.D. 1000 (Moreau et al. 2016). This trade increased rapidly after the arrival of the Europeans with the introduction of European goods and the demand for furs. The Huron held a highly strategic commercial location controlling the trade to the south and the west, and the Algonquin, Michi Saagiig, and Chippewa were their critical connection to goods from the east, including European products.

By the mid-17th century, the demands of the fur trade had caused major impacts to the traditional way of life including a change in tools, weapons, and a shift in diet to more European as hunting was more for furs and not for food. This dependence on European food, ammunition, and protection tied people to European settlements (McMillan 1995). The summer gathering sites shifted from prominent fishing areas to trading posts. This further spurred social changes in community structure and traditional land distribution and use.

The well-situated Anishinabe Algonquin, particularly the Kitchesipirini who controlled passage around Allumette Island, were originally reluctant to cede any of their dominance in fear of being cut out of their lucrative middleman role in the trade economy. However, an alliance with the French meant

protection and assistance against the Iroquois. The French, as well as other Europeans like the Dutch and English, were able to align their own political and economic rivalries with those of the native populations. The competitive greed and obsession with expanding the fur trade entrenched the rivalries that were already in place, and these were intensified by European weapons and economic ambition.

Haudenosaunee (Iroquois) Wars

Little information exists about inter-tribal warfare prior to European contact, however, there was existing animosity between the Haudenosaunee and the Anishinabe Algonquin when Champlain first arrived in the Ottawa Valley. Like his fellow Europeans, Champlain was able to use this existing rivalry to make a case for an alliance, thus gaining crucial access to the established trade networks and economic power of the Anishinabe Algonquin. Prior to European contact, the hostilities had been mainly skirmishes and raids, but everything changed as European reinforcement provided deadlier weapons and higher economic stakes with the introduction of the fur trade.

Along with the French, the Anishinabe Algonquin were allied against the Haudenosaunee with the Huron, Nippissing, Michi Saagiig, and Chippewa. French records suggest that at the end of the sixteenth century the Algonquins were the dominant force and were proud to have weakened and diminished the Iroquois. The first Algonquin campaign the French took part in was a 1609 attack against the Mohawk. The use of firearms in this fight marked the beginning of the escalation of brutality between these old enemies. The Haudenosaunee corn stalk shields could stop arrows but not bullets or French swords (Hessel 1993).

Eventually the tide changed and as the Haudenosaunee exhausted the beaver population in their own territory, they became the aggressors, pushing into the lands of the Anishinabe Algonquin, Michi Saagiig, Chippewa, and Huron, with the added strength of Dutch weaponry. Through the 1630s and 40s constant and increased raiding into Anishinabe Algonquin, Michi Saagiig, and Chippewa territory by the Haudenosaunee nations had forced many multi-generational residents to leave their lands in seek protection from their French allies in places like Trois Rivieres and Sillery while others fled to the north. By 1650 Huronia, the home of the long-time allies of the Anishinabe Algonquin and traditional and treaty territory of the Chippewa, had been destroyed by the Haudenosaunee. The Anishinabe Algonquin of the Ottawa Valley had largely been scattered or displaced, reduced through war and disease to small family groups under the protection of the French missions only fifty years after the first Europeans had travelled the Ottawa River (Morrison 2005:26).

There is some evidence that the Anishinabe Algonquin did not completely abandon the Ottawa Valley but withdrew from the Ottawa River to the headwaters of its tributaries and remained in those interior locations until the end of the century. Taking advantage of the Anishinabe Algonquin absence, the Ottawa people, originally from the area of Manitoulin Island, used the river for trade during this time and their name became historically applied to the river.

Aftermath of War

As the Haudenosaunee push continued and the Anishinabe Algonquin sought refuge amongst their French allies, other factors came into play that significantly contributed to their displacement and near destruction. The introduction of European diseases, the devastating influence of alcohol, and the increasing pressure to convert to Christianity massively contributed to the weakening of the Anishinabe Algonquin people and their traditional culture.

The Anishinabe Algonquin thought of themselves as part of the natural world with which they must live in harmony. The traditional stories of Anishinabe Algonquin folklore contained lessons and guides to

behaviour. The French missionaries regarded them as “heathens” and dismissed their religion as superstition (Day 2005). The missionaries believed it was their duty to convert these people to Christianity to save them from evil. Anishinabe Algonquin chief Tessouat had seen his Huron neighbours become ill and die after interactions with the European missionaries and had thus originally warned his people about abandoning their old beliefs and the dangers of conversion (Hessel 1993). Eventually the French imposed laws allowing only those converted to Christianity to remain within the missions and under French protection. This created divisions amongst the Anishinabe Algonquin themselves which weakened the social structure as some settled into a new religion and new territory.

Starting in the 1630s and continuing into the 1700s, European disease spread among the Anishinabe Algonquin groups along the Ottawa River, bringing widespread death (Trigger 1986:230). As disease spread through the French mission settlements the priests remained certain that the suffering was punishment for resisting Christianity. An additional threat lurking amongst the French settlements was alcohol which precipitated many issues.

The Long Way Back

After the Haudenosaunee (Iroquois) Wars, the remaining Anishinabe Algonquin people were generally settled around various French trading posts and missions from the north end of the Ottawa Valley to Montreal. A large settlement at Oka was the first mission established on Anishinabe Algonquin lands in 1720. This settlement included people from many groups who had been collected and moved around from various locations. It became a type of base camp; occupied during the summer while the winters were spent at their traditional hunting territories in the upper Ottawa Valley. This arrangement served the French well, since the Anishinabe Algonquin converts at Oka maintained close ties with the northern bands and could call upon the inland warriors to join them in case of war with the British or Iroquois League.

As the British gained control of Canada from the French in 1758-1760 they included in the Articles of Capitulation a guarantee that the Indigenous allies of the French would be maintained in the lands they inhabited. Many of the Anishinabe Algonquin and other native groups that had been living on French mission settlements were shuffled around to new reserves while others began to migrate back to their traditional territories. Those who had remained on the land and continued to be active in the fur trade, now did so with the English through companies in Montreal like the North West Company, and in the north with the Hudson Bay Company.

Some Anishinabe Algonquin people began to return to their traditional territory to join those groups who had remained in the lower Ottawa Valley and continued their traditional lifeway through to the influx of European settlement in the late 1700s and early 1800s. This included bands noted to be living along the Gatineau River and other rivers flowing into the Ottawa. These traditional bands maintained a seasonal round focused on harvesting activities into the 1800s when development pressures and assimilation policies implemented by the colonial government saw Indigenous lands taken up, albeit under increasing protest and without consideration for Indigenous claims, for settlement and industry. Anishinabe Algonquin lands began to be encroached upon by white settlers involved in the booming lucrative logging industry or having been granted the land as Loyalist soldiers or through other settler groups.

As some Anishinabe Algonquin had been redistributed to lands in Quebec, their traditional territory within the Ottawa Valley was included in multiple land transfer deals, agreements, and sales with the British Crown beginning in the 1780s and continuing till the 1840s. The Anishinabe Algonquin were not included in these transactions and numerous petitions and inquiries on behalf of their interests were often overruled or ignored (Holmes and Associates 1993a; Holmes and Associates 1993b; Sarazin). The Constitution Act of 1791 divided Quebec into the Provinces of Upper and Lower Canada

with Ottawa River as the division line, thus the lands claimed by the Algonquins fell under two separate administrations creating more confusion, exclusion, and oversight.

Two “protectorate” communities were eventually established in the nineteenth century for the Anishinabe Algonquin people at Golden Lake in Ontario and River Desert (Maniwaki) in Quebec. One of the last accounts of the Anishinabe Algonquin living traditionally was from 1865. The White Duck family was living just west of Arnprior when they were forced to leave their wigwams as surveyors arrived to tell them the railway was being expanded through their land (Hessel 1993).

Anishinabe Algonquin people continue to live in the wider Ottawa Valley and there are still many speakers of several Algonquian dialects. Outside of the officially recognized bands there are an unspecified number of people of Anishinabe Algonquin decent throughout the Ottawa Valley unaffiliated with any reserve. Today there are ten Anishinabe Algonquin communities that comprise the Algonquins of Ontario: The Algonquins of Pikwàkanagàn First Nation, Antoine, Kijicho Manito Madagouskarini, Bonnechere, Greater Golden Lake, Mattawa/North Bay, Ottawa, Shabot Obaadjiwan, Snimikobi, and Whitney and area.

Struggles to officially secure title to their traditional land and fight for hunting and fishing rights have continued into modern times. The Algonquins of Ontario (AOO) and the Governments of both Canada and Ontario are working together to resolve this land claim through a negotiated settlement. The claim includes an area of 9 million acres of unceded territory within the watersheds of the Ottawa and Mattawa Rivers in Ontario including the city of Ottawa and most of Algonquin Park. The signing of the Agreement-in-Principle in 2016 by the AOO and the provincial and federal governments, signifying a mutual intention for a lasting partnership, was a key step towards a final agreement to clarify the rights and nurture new economic and development opportunities in the area.

4.2.4 Euro-Canadian Colonial History

Early Euro-Canadian land divisions into districts, counties, townships, etc. and the expansion of settlement were facilitated by the Indigenous Nations who agreed to enter formal treaty relationships with the newcomers to share the land and resources. The study area is located within the traditional territory of the Anishinabe Algonquin people, which was part of the lands of the Algonquin Land Claim area.

The unceded Anishinabe Algonquin territories encompass nine million areas of land across much of Eastern Ontario. Treaty negotiations between the Algonquin Anishinaabeg (collectively represented by the Algonquins of Ontario) and the Crown (Ontario and Canada), reached an Agreement-in-Principle in 2016. The Agreement-in Principle is a key step toward a Final Agreement clarifying the rights of all parties and demonstrates a building of respect between the Crown and the Indigenous communities.

A rough survey of the Township of Gloucester was initiated in 1792 but was not completed until 1820. The township was named for William Frederick, second Duke of Gloucester and Edinburgh, nephew of King George III (Clark 2012). The 83,000-acre township was laid out in the typical mile and a quarter concessions, but had two fronts: one facing the Ottawa River, and one facing the Rideau River (Wackley 2000).

Braddish Billings, a lumber jobber working on the Rideau River for Philamon Wright of Hull, was the first settler in Gloucester Township, squatting on Lot 17 of the clergy reserve along the Rideau River in 1812 (Séguin 1991). In 1823, Billings constructed the first sawmill in the township on a creek running through his property near present day Bank Street. In 1825, Billings was appointed Clerk and Assessor for Gloucester Township, and the first assessment lists 12 families (Clark 2012). Settlement first

occurred along the rivers and the early pioneer communities of the township consisting of Manotick, Long Island Village, Gateville (Billings Bridge), Janeville (Vanier), and New Edinburgh. As roads pushed inland the villages of Cyrville, St. Joseph (Orléans), and Cathartic (Carlsbad Springs) developed. By the late 1820s the township's lumber was mostly felled and agriculture became the main source of revenue. In 1827, Billings took his last load of lumber to Quebec before turning to agriculture (Séguin 1991).

The Farmer's Bridge, later known as Billings Bridge, was completed in 1830, linking Gloucester Township with Nepean Township and Bytown. By 1834, the township had grown slightly totaling 156 households. That same year, stagecoach service began between Bytown and Prescott via Billings Bridge, Bowesville, and South Gloucester. The road was known as the Bytown & Prescott Carriage Road (Clark 2012).

In 1850, Gloucester Township was incorporated. The following year the township had a population of 3,005. Ten years later the population had only grown to 4,522 (Bond 1968). In 1854, the Bytown and Prescott Railway was completed through the township (renamed Ottawa and Prescott Railway in 1855 and leased to CPR in 1881). The railway ran through Gloucester from Manotick Station to New Edinburgh via Gloucester Station, Ellwood, Billings Bridge, Overbrook, and Janeville (Vanier).

In 1865, the Ottawa and Gloucester Road Company was established to build and improve the road between Uppertown Ottawa and South Gloucester, by this time the road was known as Bank Street (Clark 2012). These improvements to the township meant that by 1867 Gloucester was mostly settled, but eventually the township started losing part of its urban population to Ottawa.

The first survey of 47,000 acres that would become Cumberland Township took place in 1791. A second survey in 1798 stated that counties should be made up of townships within eight judicial districts: Eastern, Johnston, Midland, Home, Niagara, London, Western and Newcastle. This was executed in 1802, when the area became part of the Eastern District which consisted of the counties of Glengarry, Dundas, Leeds, and Stormont (Cumberland Township Historical Society 2006).

In the summer of 1799, Cumberland Township was named to honour Prince Ernest Augustus I, one of the numerous children of George III, who became Duke of Cumberland on 24 April 1799. By October 1799, Cumberland Township was listed as existing partly in Stormont and Dundas Counties. On January 1, 1800, Cumberland Township was included with the townships of Clarence, Gloucester, Osgoode, Russell, and Cambridge in the County of Russell, which was now included in the Eastern District (Cumberland Township Historical Society 2006).

In Russell County, the first settlements occurred along the Ottawa River. The village of Cumberland was established on the south shore of the Ottawa River in 1801. Its strategic location at the confluence of the Lievre and Ottawa Rivers made it a popular early fur trading post. Settlement is not recorded in the interior of the township prior to 1820. By 1828, there were only twelve landowners in the township (Assessment Rolls for Cumberland Township 1834).

By the mid-1800s the village of Cumberland was a major seasonal forwarding centre. A wharf allowed for mail carriers to transport communications, and the village had two telegraph offices. Cumberland also had a small ship building industry (Cumberland Township Historical Society 2006). In 1851, the population of Cumberland township was 1,659 and by 1861 had almost doubled to 2,609 (Bond 1968:22). In 1851, the township consisted of one stone house, 54 frame houses, 46 log houses, and 115 shanties. By 1861, the township had 6 stone houses, 16 frame houses, 315 log houses, and zero shanties (Bond 1968:24).

4.2.5 Study Area Specific Histories

For ease in reporting, the study area has been divided into Operations A through H (Map 1).

The land patents for most of the original 12 lots within the study area are relatively early. Six of the lots were granted between 1802 and 1809, four of which were granted to women, most in 1803 (LRO (04)). The early patents and the fact that they were granted to women suggests these were the wives or daughters of United Empire Loyalists, receiving land grants based on their husband's or father's service during the American Revolution. Based on the surnames in this group of lots the Loyalists belonged to a Scottish regiment. These land grants were often in areas that were not yet settled, and the original early grantee may have never seen the property in person. Most of these properties sat idle and were sold decades after the original patent was granted.

One property was granted in 1870 to the Canada Company which was a large private chartered British land development company to aid the colonization of a large part of Upper Canada (Ontario) founded in 1825. The remaining patent dates in this group of lots range from 1837 to 1871 (LRO (04)).

Historical maps reviewed include the 1862 Walling map of Stormont, Dundas, Glengarry, Prescott and Russell, 1863 Walling map of the County of Carleton (Map 12), 1879 Belden map of Gloucester Township (Map 13), and the 1881 Belden map of the Township of Cumberland. The 1862 Walling and 1881 Belden maps are not reproduced within this report as they do not illustrate any structures or ownership within or near the study area.

Operation A

Operation A falls within the centre of Lots 1 and 2, Concession 6 Rideau Front, in the Geographic Township of Gloucester.

Lot 1

The patent for Lot 1 was granted to James Watt in 1837 (LRO (04)). The next transaction is from over three decades later and is the sale of a portion of the property by Samuel Norton to Indith Conway in 1869 (LRO (04)). This suggests Watt was an absentee landlord and likely did not live on the property.

Historic mapping from 1863 shows the prominent Ramsay Creek cutting across the centre of the lot and the earlier version of Russell Road crossing the western end of the lot. The map shows three owners on Lot 1, each with a house. The homes of Mrs. Conway and S. Naughton are depicted on the western portion of the lot with a house attributed to Bradburn in the eastern portion (Map 12).

By the time of the 1879 map (Map 13) the Bradburn home in the southeastern portion of the lot is attributed to C. Brock. The map shows A. F. Graham occupying the northern portion of the lot with multiple structures depicted in the northwestern corner, J. and R. Norton on the central portion of the lot with a house along the western edge, and the house of W. Gray in the southwestern portion. The aerial photo from 1965 shows the Bradburn / Brock farmstead still standing at that time next to a Hydro tower along the corridor (Map 15). These structures depicted on the historic mapping fall outside of the operation. Based on available aerial photos, there are no structures within the operation from 1965 onward.

Lot 2

The patent for Lot 2 was granted to the Canada Company in 1870 (LRO (04)). The next two listed transactions on the property registry are the grant of a portion of the lot from Isabella Grey to Andrew

and John Grey, and a sale of another section of the lot by Thomas Little to Rose Gooding (LRO (04)). It is unclear in the register when, or even if, the Canada Company sold the property to Grey or Little.

Historic mapping from 1863, seven years before the patent to the Canada Company, shows the house of a Mrs. Little living on the western portion of the property, and the house of W. Halbey on the eastern side of the lot along what is now Ridge Road (Map 12). Perhaps these families were squatters who had been living on the land long before the acquisition of the official patent by the Canada Company.

By the time of the 1879 mapping the western half of the lot is attributed to T. J. Little, with the northeastern portion belonging to William Abey, and the southeastern portion to Mrs. G. Gray (Map 13). An aerial photo from 1965 shows a house in the eastern portion of the lot, on the south side of Ridge Road that could be the Halbey/ Abey homestead (Map 15).

Operation B

Operation B falls within the central portion of Lot 1, Concession 6 Rideau Front, in the Geographic Township of Gloucester. The property history of Lot 1 is discussed above in reference to Operation A. Operation B falls within the central portion of the lot, and the houses depicted on the historic mapping are in the eastern side, outside of the operation.

Operation C

Operation C consists of a small section of road allowance along Ramsayville Road at Lot 1 between Concession 6 Rideau Front and Concession 4 Ottawa Front in the Geographic Township of Gloucester. Historic mapping from 1863 shows the road allowance for the concession road that would become Ramsayville Road, however, it does not appear to have been established at that time (Map 12). Borthwick Creek is depicted on the mapping in relatively the same place as it is today. By the time of the 1879 mapping the road remained unopened but seems to have been extended from the south to Borthwick Creek where it ended (Map 13). The road was in place by the time of the 1965 aerial photo (Map 15).

Operation D

Operation D consists of a small section of road allowance along Anderson Road between Lots 16 and 15, Concession 4 Ottawa Front in the Geographic Township of Gloucester. Historic mapping from both 1863 and from 1879 shows no structures in the vicinity of Operation D (Map 12 and 13). This is likely owing to the location being within Mer Bleu Bog, which is depicted on the 1879 map. What is now Anderson Road appears in the 1965 aerial photo (Map 16) and is shown on the later 1879 map, but not on the earlier 1863 map.

Operation E

Operation E consists of a section of road allowance between Concessions 3 and 4 Ottawa Front at Lots 15 and 14, in the Geographic Township of Gloucester. On the historic mapping from both 1863 and from 1879 there are no structures or roads depicted in the immediate vicinity of Operation E (Map 12 and 13). As with Operation D, this is likely due to the location being within Mer Bleu Bog, which is depicted on the 1879 map.

Operation F

Operation F falls within the southern portion of Lot 11, Concession 3 Ottawa Front, in the Geographic Township of Gloucester.

The Crown patent for all 200 acres of this lot was granted to Jane McGregor in 1803 (LRO (04)). As mentioned above, based on the early date, and additionally to the fact that it was granted to a woman, suggests Jane was likely to the wife or daughter of a United Empire Loyalist. The next listed transaction is from over five decades later with the sale of the whole lot by Randal MacDonald to Archibald Fraser in 1855 (LRO (04)). This suggests McGregor was an absentee landlord and likely did not live on the property. There are no owners, structures, or roads shown for the lot in the historic mapping from 1863 (Map 12). By the time of the mapping from 1879, the owner of the property is shown as Gilbert Boule, but there are no structures depicted on the lot and what is today Renaud Road is shown crossing the southern portion of the lot (Map 13).

Operation G

Operation G consists of a small section of road allowance along Renaud Road between Lots 10 and 11, Concession 3 Ottawa Front, in the Geographic Township of Gloucester. Historic mapping from 1863 shows no structures or roads in the vicinity of the operation, however, the northern end of the lot lists J. Camp as the owner with a house depicted on the northern side of what is today Cléroux Crescent / Navan Road, which crosses the northern end of the lot (Map 12). As mentioned in Operation F, by the time of the 1879 mapping, Lot 11 was owned by Gilbert Boule, with the western portion of Lot 10 owned by T. Vissard, and Renaud Road is depicted between the lots over a section of Green's Creek (Map 13).

Operation H

Operation H crosses Lots 1 through 7, Concession 3 Ottawa Front, in the Geographic Township of Gloucester, and into Lots 1 and 2, Concession 11, in the Geographic Township of Cumberland.

Lot 1, Concession 3, Ottawa Front

The Crown patent for all 200 acres of Lot 10, Concession 3, was granted to Eleanor McGregor in 1809 (LRO (04)). Eleanor was likely the wife or daughter of a United Empire Loyalist and probably a sister or close relative of Jane McGregor, who received land on adjacent Lot 11, Concession 3. The next transaction listed in the land registry records occurs 25 years later, when Duncan Campbell and his wife Eleanor—likely the same Eleanor who was granted the patent—sold the entire lot to John McKenzie in 1834.

In 1853, the lot was sold by Colin Russell to J.B. Proulx, and at least a portion of the property remained within the Proulx family until at least the 1930s (LRO (04)). Historical mapping from 1863 identifies the owner as B. Proulx, with a dwelling illustrated near the northeastern edge of the lot (Map 12). Several houses are also depicted just east of the lot, across what is now Mer Bleue Road and the township boundary into Cumberland.

By the time of the 1879 mapping, the lot had been subdivided into six parcels. The northern portions were occupied by E. Proulx, I. Taillefer, and Leon Proulx, with dwellings along what is now Innes Road. The southern portions were held by Leon Lachaine, Leon Proulx, and Honore Richer, each with a house located along the north-south boundary of the lot (Map 13). These structures were situated just south of the present-day study area.

A 1991 aerial photograph indicates that by that time, two of the three central houses shown in the 1879 map had been completely removed. However, the easternmost structure, likely the residence of Honore Richer, may still have been visible on the landscape at that time (Map 17).

Lot 2, Concession 3, Ottawa Front

The Crown patent for all 200 acres of this lot was granted to Donald McCallum in 1809. The next transaction recorded in the land registry occurs more than four decades later, when a portion of the property was sold by the Honourable Peter McGill to Colin Russell in 1853 (LRO (04)). This long gap suggests that McCallum was likely an absentee landowner and did not reside on the property.

Peter McGill was a prominent Montreal businessman who leveraged his uncle's reputation and financial resources to rise to prominence during the 1820s and 1830s (Sweeny 1985). He held partnerships in several mercantile firms involved in shipping and the importation of goods, and outside of these ventures, he became increasingly involved in institutional finance, progressing through the ranks of the Bank of Montreal's Board of Directors. Beginning in the 1830s, McGill diversified his investments to include enterprises such as the Marmora Ironworks, the Montreal Waterworks, a steamboat company in Ottawa, and a railway line in Quebec. His influence extended beyond business—he co-owned a church, served as Montreal's first mayor in 1840, and held positions on numerous boards spanning business, religious, and secular institutions. McGill served in the Legislative Assembly from 1832 to 1838, and following the union of Upper and Lower Canada in 1841, he was reappointed and remained a member until his death. By the 1840s and 1850s, however, McGill was heavily in debt and began liquidating assets to repay his financial obligations (Sweeny 1985). His ownership of the subject property was likely part of his investment portfolio, and the 1853 sale appears to have been part of this broader liquidation.

Historic mapping from 1863 identifies the lot owner as "G. Belonxie" (Map 12), likely a cartographic error for Georgie Belanger, who acquired the entire lot in 1856 from Sarah Russell, the widow of Colin Russell (LRO (04)). This map shows a single dwelling located in the far northwestern corner of the lot, well removed from the current study area. By 1879, the property is listed under the ownership of B. Corbeille Sr., with houses depicted in both the northwest and northeast corners of the lot (Map 13). Jean-Baptiste Corbeille acquired the entire lot in 1870, and at least part of the property remained in the Corbeille family until at least 1956 (LRO (04)).

Lot 3, Concession 3, Ottawa Front

The Crown patent for all 200 acres was granted to William Rathwell in 1871, which is notably later than the patents for most of the neighbouring lots. Historic mapping from 1863 shows no attributed owner or structures (Map 12). Soon after acquiring the property, Rathwell subdivided the land, selling the eastern half to Onesime Demers in 1875 and the western half to John Maher in 1876 (LRO (04)). These transactions are reflected in the 1879 historic mapping, which shows "O. Demarse" on the eastern portion with a house depicted along the northern edge (now Innes Road), and "John Mahar" on the western portion with two structures, possibly dwellings, also along the northern edge (Map 13). Both houses are situated well outside the current study area.

Lot 4, Concession 3, Ottawa Front

The Crown patent for all 200 acres of this lot was granted to William Henderson in 1802. The next listed transaction is a Sheriff's deed from 1834, transferring the property to William Noland due to unpaid taxes (LRO (04)), suggesting Henderson was an absentee landowner. Noland also failed to maintain the taxes, and the lot was again transferred through a Sheriff's deed in 1842 to Lemuel Cushing (LRO (04)). The 1863 historic mapping shows two owners: "J. LaFleur" on the western portion, with a house in the northwest corner, and an illegible name on the eastern portion. The first name appears to be "William," with the surname ending in "well," although this name does not correspond with land registry entries (Map 12). Both houses are located outside the current study area. By 1879, the eastern portion and house were attributed to Pierre Gourlx and the western portion

and house to “M. LaFleur” (Map 13). Gourlx had acquired the eastern half (100 acres) from Joseph LaFleur Sr. in 1870, and at least part of the property remained in the Gourlx family until 1967 (LRO (04)).

Lot 5, Concession 3, Ottawa Front

The Crown patent for all 200 acres was granted to Nancy McDonell in 1803 (LRO (04)), likely the wife or daughter of a United Empire Loyalist. The next recorded transaction is the sale of the entire lot by McDonell to Angus McDonald in 1847. The McDonald family did not retain the property long, selling the western half to Louis Taillefer in 1860 and the eastern half to Isadore Cusson in 1862 (LRO (04)). These owners are not shown in the 1863 historic mapping, which depicts the lot as unoccupied (Map 12). By 1879, the southern portion of the lot was divided among L. Taiffaire (Taillefer), J. R. Perrault, and I. Toussa (Cusson), with a house shown in the southwest. The northern portion was attributed to M. Cleroux, L. Cleroux, and Isadore Cusson, with four houses along the northern edge and one house—possibly a meeting house—depicted in the central western part of the lot, along what is now Pagé Road (Map 13). The 1965 aerial photo shows a structure larger than the surrounding dwellings, possibly the same meeting house (Map 17). By 1991, this area appears overgrown, and by 1999, it was fully developed as a subdivision.

Lot 6, Concession 3, Ottawa Front

The Crown patent for all 200 acres was granted to Isabella MacIntosh in 1803 (LRO (04)), likely the wife or daughter of a United Empire Loyalist. The next recorded transaction is a Sheriff’s deed from 1837, transferring the land to Archibald Petrie due to unpaid taxes (LRO (04)). Petrie sold the southern half to John Forgie in 1856 and the northern half to Joseph Fennell in 1858. The 1863 historic mapping shows no owners or structures, though it does depict a road—now Navan Road—crossing the southern portion and a creek in the central portion (Map 12).

By 1879, the southern portion was shown under the ownership of David Miller, who had acquired the land from Eliza Grant in 1876. Miller sold it to Louis Perrault Jr. in 1885, and throughout the 1950s and 1960s the Perrault family subdivided and mortgaged numerous parcels (LRO (04)). The northern portion was shown under the ownership of M. Cleroux, I. Taillfaire, and another M. Cleroux, with a house on each parcel along the northern edge (Map 13). Louis Cleroux acquired the western half from Jean-Baptiste Taillefer in 1864 and later deeded it to Michael Cleroux (1875) and Milien Cleroux (1876). The Cleroux family retained at least part of the land through the mid-20th century. The Taillefer portion, acquired in 1858, similarly remained in the family into the 1960s (LRO (04)).

Lot 7, Concession 3, Ottawa Front

The Crown patent for all 200 acres was granted to George B. Lyon in 1848 (LRO (04)). By 1852, Lyon had sold the eastern portion to Louis Leguie and the western portion to Francis Sabourin. The 1863 mapping erroneously places a house in the southeastern section attributed to “William Johnson,” as well as a house to “R. Dag” and a schoolhouse—all features actually located on adjacent Lot 8 (Map 12). By 1879, the northwestern corner of the lot is attributed to L. Roy with a house along the northern edge (Map 13). Onesime Roy had acquired part of the lot from Alexis Taillefer in 1861, and the family retained ownership until at least 1903 (LRO (04)). A southeastern parcel is attributed to J. Kemp with a house along the north side of the road. Kemp had purchased the land from Lewis Hall in 1876 and sold it to Daniel Touhey in 1890 (LRO (04)). Kemp’s house, as shown on the 1879 map, was just north of the current study area. Aerial imagery from 1965 and 1991 shows several houses in this area (Map 17), one of which may correspond to the Kemp residence. By 1999, the area had been cleared for subdivision development.

Lot 1, Concession 11, Cumberland

The Crown patent for the northern 100 acres was granted to Joseph Labell. The date in the registry is partially illegible but appears to be between 1828 and 1858. The southern portion of the lot appears to have been granted to Pierre Boyer sometime in the 1850s or 1860s (LRO (04)). No owners or structures are depicted on either the 1863 or 1881 historic maps (Map 14).

Lot 2, Concession 11, Cumberland

The Crown patents for the southern half of the lot were issued in 1860: 50 acres to Vincent Jeunesse and 50 acres to Baptiste Jeunesse (LRO (04)). These individuals were likely close relatives, possibly brothers. Both had sold their parcels by 1880. The northern 100 acres were patented to N. Souvigney in 1865, who sold it in 1868 to Thomas H. Kirby. Kirby immediately transferred the land to Lousaine Ethier (LRO (04)). No owners or structures are shown on the 1863 or 1879 historic maps (Map 14).

4.3 Archaeological Context

4.3.1 Current Conditions

The 21.5-hectare Stage 1 study area comprises portions of a larger area that generally follows an existing hydro corridor extending from the Hawthorne Transformer Station near Walkley Road and Hawthorne Road in the west to the Orleans Transformer Station near Innes Road and Tenth Line Road in the east. The study area primarily consists of forested or overgrown meadows, marshland, agricultural fields, and intersecting roadways.

Operation A

Operation A is located within Lots 1 and 2, Concession 6, Rideau Front, in the Geographic Township of Gloucester. This portion encompasses the western terminus of the supply line at the Hawthorne Transformer Station, beginning in the western portion of Lot 2 and extending eastward across the railway line. The landscape consists of overgrown scrubland, fencing, utility corridors, informal paths, and Hydro Road. Conditions observed during the assessment are shown in Map 4 and Figure 1 and Figure 2.

Operation B

Operation B lies in the central portion of Lot 1, Concession 6, Rideau Front, in the Geographic Township of Gloucester. This area is located near the end of the western terminus and straddles Highway 417. It features similar overgrown scrubland to that observed in Operation A. Conditions are depicted in Map 4.

Operation C

Operation C comprises a short section of road allowance along Ramsayville Road, between Lot 1, Concession 6, Rideau Front, and Concession 4, Ottawa Front, in the Geographic Township of Gloucester. This portion includes Ramsayville Road where Borthwick Creek passes beneath it through a concrete culvert. Conditions observed during the assessment are illustrated in Map 5 and Figure 3 to Figure 6.

Operation D

Operation D consists of a road allowance segment along Anderson Road, between Lots 16 and 15, Concession 4, Ottawa Front, in the Geographic Township of Gloucester. This section follows the downslope of the Dolman Ridge to the south and is flanked by forest, scrub, and marshland at the edge of Mer Bleue Bog. Conditions observed during the assessment are shown in Map 6 and Figure 7 to Figure 10.

Operation E

Operation E includes a section of road allowance between Concessions 3 and 4, Ottawa Front, at Lots 15 and 14, in the Geographic Township of Gloucester. This area lies within the marshlands on the western edge of Mer Bleue Bog. Conditions are depicted in Map 7 and Figure 11.

Operation F

Operation F is located in the southern portion of Lot 11, Concession 3, Ottawa Front, in the Geographic Township of Gloucester. This portion includes a short stretch of gravel recreational path situated on a former railway alignment, passing through a forested area within the existing hydro corridor just west of Renaud Road. Conditions are illustrated in Map 8 and Figure 12.

Operation G

Operation G comprises a short section of road allowance along Renaud Road, between Lots 10 and 11, Concession 3, Ottawa Front, in the Geographic Township of Gloucester. This area includes Renaud Road where Green's Creek passes beneath via a culvert, with adjacent lands consisting of forest and agricultural fields. Conditions are documented in Map 8 and Figure 13 to Figure 17.

Operation H

Operation H spans Lots 1 through 7, Concession 3, Ottawa Front, in the Geographic Township of Gloucester, extending into Lots 1 and 2, Concession 11, in the Geographic Township of Cumberland. This segment represents the easternmost portion of the study area and follows the hydro corridor to its terminus at the Orleans Transformer Station. The landscape is predominantly partially forested, overgrown scrubland interspersed with marshy areas. The western end of Operation H includes the Mud Creek Stormwater Management Area and terrain that has been extensively altered by adjacent residential development. Much of this area has been previously subject to archaeological assessment. Conditions observed during the assessment are presented in Maps 9 to 11 and Figure 18 to Figure 33.

4.3.2 Physiography

Most of the study area lies within the Ottawa Valley Clay Plains Physiographic region (Maps 18 to 20). This region is characterized by poorly drained topography of clay plains interrupted by ridges of rock or sand that offer moderately better drainage. This topography was influenced by the post glacial sequence Champlain Sea (*ca*. 10,500 to 8,000 B.C.) that deposited these clay soils and were subsequently covered by sand deposits from the emerging freshwater drainage. Some of these sands were eroded to the underlying clay deposits by later channels of the developing Ottawa River. The sections to the north and south of the Ottawa River are characteristically different. On the Ontario side there is a gradual slope, although there are also some steep scarps (Chapman and Putnam 2007).

A small portion of the southwestern end of Operation G falls within the Russell and Prescott Sand Plains Physiographic region (Map 18). The sand plains consist of a large continuous belt, 65 miles in length, that stretches from Ottawa to Hawkesbury. Except for the higher sands south of Ottawa, the entire area was originally a continuous delta built up by the Ottawa River and the tributaries into the Champlain Sea. The sand plains have a level surface, and depth that varies from 20 to 30 feet. The texture of the sand is also variable, coarser towards the north and fine sand and silt south of the Castor River. The sands are underlain with stratified red and grey clay. Most of the area lies within the drainage of the South Nation River. Drainage is good near the escarpments, but increasingly worse towards the core of the region. As most of the ground water drains into the sand, there are few streams. The South Nation River cuts a canyon 20-25 m deep across the plain from Casselman to Lemieux (Chapman and Putnam 2007).

Operation A

Operation A falls within an area of unmapped urban soils (Map 18). The surficial geology of this operation is massive to well laminated, fine-textured glaciomarine deposits of silt, clay, minor sand, and gravel (Map 18). Ramsay Creek is just to the east of the operation.

Operation B

Operation B falls within an area of Cheney soils (Map 18). The parent materials of this soil type were deposited by water as it flowed out over the area in front of the glacier. As the rate of flow of water decreased, particles of sand and fine gravel settled out to form the outwash plains of today. The Cheney soil series developed on these strongly undulating to rolling outwash materials of sand or sandy loam under good to excessive drainage conditions. There are no boulders within the profile although very occasionally one may be found on the surface. The natural forest for this soil type is a coniferous forest. The cultivated surface soil is very low in organic matter and available plant nutrients are in short supply. The soil is not well suited to general farming because of low fertility and a tendency to be droughty (Matthews and Richards 1954).

As with Operation A, the surficial geology of this operation is massive to well laminated, fine-textured glaciomarine deposits of silt, clay, minor sand, and gravel (Map 18). Ramsay Creek runs along the western side of the operation.

Operation C

Operation C falls within an area of Ste. Rosalie soils (Map 18). These are poorly drained clay soils that are found in the Ottawa River valley. These soils have developed olive-gray clay which is often 15 feet thick. The moist and wet soils have a dense consistency that is the result of clay swelling and internal drainage is almost completely blocked. The topography is flat and natural drainage courses are imperfectly developed. The surface plow layer is dark grey in colour and is very low in organic matter content. Hay and grain are the principal crops grown in these soils (Gillespie and Wicklund 1964).

As with Operations A and B, the surficial geology of this operation is massive to well laminated, fine-textured glaciomarine deposits of silt, clay, minor sand, and gravel (Map 18). Borthwick Creek crosses under Ramsayville Road at the operation.

Operation D

Operation D falls within an area of Ste. Rosalie soils (Map 18) (see Operation C for description). As with Operations A to C, the surficial geology of this operation is massive to well laminated, fine-textured

glaciomarine deposits of silt, clay, minor sand, and gravel (Map 18). A tributary of Green's Creek flows immediately to the north of the operation.

Operation E

The surficial geology and the soil of Operation E consist of organic deposits of peat, muck, and marl (Map 19). This operation falls within the edges of the Mer Bleu Bog with a tributary of Green's Creek crossing through the centre.

Operation F

The soil of Operation F is of the Ramsayville soil type (also known as Bearbrook) (Map 18). These soils are very important in the counties of Eastern Ontario as they constitute much of the area and are excellent soils for growing hay, oats, and fodder corn, perfect for supporting livestock and the thriving dairy industry in the area. These are clay textured soils that occur on flat or smooth topography and therefore have poor natural drainage. Due to this, the topsoil is dark and organic with a mottled clay subsoil. In some areas there are small pockets of sand or sandy loam sitting on top of the clay which provides excellent conditions for agriculture (Report 33, Wicklund and Richards, 1962).

The surficial geology in Operation F is older alluvial deposits of clay, silt, sand, gravel, and possibly organic remains (Map 19). There are no water sources directly within the operation, however, tributaries of the Mer Bleu Bog and Green's Creek are immediately adjacent.

Operation G

The northern portion of Operation G falls within an area of eroded channels, while the southern portion consists of Allendale soils (Map 19). Allendale soils are poorly drained, both internally and externally, and have a topography of level to slightly undulating. The natural vegetation in these soils is elm, ash, and poplar. The organic matter in these soils is not well incorporated with the mineral fraction, and in some areas, it has accumulated to such an extent that the soil is similar to a shallow muck. With improved drainage and careful cultivation, the surface soil can produce medium to low fertility. The most common use for this type of soil is for permanent pasture of forest (Matthews and Richards 1954).

As with Operation F, the surficial geology in Operation G is older alluvial deposits of clay, silt, sand, gravel, and possibly organic remains (Map 19). Green's Creek flows along the northern edge of this operation.

Operation H

There are multiple soil types within Operation H due to its size and proximity to the Mer Bleu Bog (Map 19). The eastern two thirds of the operation is composed of Ramsayville soil (also known as Bearbrook), for more on this soil type see Operation F. The western end of the operation consists of Mountain soils. Mountain series soils are imperfectly drained and are typically found in the section of the Ottawa Valley south of Pembroke. These soils are usually composed of thin sandy deposits that overlie clay and are normally level, which may exacerbate poor drainage. The subsoil is usually gray mottled with yellowish-red clay (Gillespie and Wicklund 1964:29).

The remaining western one third of the operation has various soil types including Cheney, Achigan, and Allendale. For more on Cheney soils see Operation B. Achigan soils are imperfectly drained and subject to water saturation for short periods during the growing season. They have a near level to very gently sloping or undulating topography. These soils occur on the fine sand deposits distributed

throughout the central and northern portions of Prescott and Russell Counties. There are some dune-like hills that occur that are small both in height and length and are joined by smoother stretches of imperfect or poorly drained sands. These soils can be poor for agriculture as they have little fertility and have low moisture holding capacity (Schut and Wilson 1987). For more on Allendale soils refer to Operation G.

The surficial geology of Operation H consists mainly of massive to well laminated, fine-textured glaciomarine deposits of silt, clay, minor sand, and gravel. The central portion of the operation has a geology of coarse-textured deltaic glaciomarine deposits of sand, gravel, minor silt, and clay (Map 19). A small creek and pond cross the western end of the operation.

4.3.3 Previous Archaeological Assessments

There have been multiple previous archaeological assessments in the general vicinity of the study area. An outline of projects undertaken within the past decade that are adjacent to the study area is provided in Table 1 and Map 20. There are four known previous assessments that cross over and/or include portions of the current study area.

PIF	Title	Company	Relation to Study Area	Recommendations
P369-0450-2024	Stage 2 Archaeological Assessment 2127 and 2159 Mer Bleue Road, Part Lots 1 and 2, Concession 11 Geographic Township of Cumberland, City of Ottawa, Ontario	Matrix Heritage	Immediately adjacent, but not within	No further work
P378-0049-2020	Stage 3 Archaeological Assessment: Proulx Site (BiFv-25), Trailsedge Phase 4 South, Part Lots 1, 2, & 3, Concession 3 OF, Part 1 Plan 4R30034 PIN 04404-1417, Part 4 Plan 4R19340 PIN 04404-1344, Part 2 Plan 4R30034 PIN 04404-1418, and Part 55 Plan 4R29086 PIN 04404-1353 Geographic Township of Gloucester, City of Ottawa, Ontario	Paterson Group	Immediately adjacent, but not within	No further work
P378-0038-2020	Stage 1 Archaeological Assessment of the Hydro transmission corridor from the Hawthorne transformer Station (Ottawa), to the Cumberland Junction, Regional Municipality of Ottawa Carleton	Paterson Group	Immediately adjacent, but not within	Stage 3
P378-0037-2020	Stage 2 Archaeological Assessment: Trailsedge Phase 5 North Part Lots 1, 2, 3, & 4, Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4r-22552 PIN 04404-0543, and Part 1 Plan 4R22552 PIN 04404-0542 Geographic Township of Gloucester City of Ottawa, Ontario	Paterson Group	Immediately adjacent, but not within	Stage 3
P369-0133-2021	Stage 1 and 2 Archaeological Assessment: 2983, 3053, and 3079 Navan Road, PART 4 PLAN OC1834435 PIN 04756-1336, PART 38 5R-4980 PIN 04756-0303, PART 1 5R-9893 PIN 04756-0315, and PART 1 5R-11075 PIN 04756-0316 Part Lot 6, Concession 3 Geographic Township of Gloucester Carleton County, City of Ottawa, Ontario (MH1011)	Matrix Heritage	Not immediately adjacent, but within 100m	No further work
P378-0056-2021	Stage 4 Archaeological Mitigation: Mahar Site (BiFv-26), Trailsedge Phase 5 North, Part Lot 3, Concession 3, Plan 4R-23507 PIN 04404-0541, Part of Block 115, Plan 4M-1545 Geographic Township of Gloucester City of Ottawa, Ontario (MH1007)	Matrix Heritage	Immediately adjacent, but not within	No further work

PIF	Title	Company	Relation to Study Area	Recommendations
P378-0048-2020	Stage 3 Archaeological Assessment: Mahar Site (BiFv-26), Trailsedge Phase 5 North Part Lots 1, 2, 3, & 4 Concession 3 OF, Part 2 Plan 5R8348 PIN 04404-1472, Part 1 Plan 4R29569 PIN 04404-0503, Part 1 Plan 4R23507 PIN 04404-0541, Part 5 Plan 4R-23507 PIN 04404-0539, Part 2 Plan 4r-22552 PIN 04404-0543, and Part 1 Plan 4R22552 PIN 04404-0542 Geographic Township of Gloucester City of Ottawa, Ontario	Paterson Group	Immediately adjacent, but not within	Stage 4
P378-0047-2020	Stage 2 Archaeological Assessment Proposed Residential Development 6101 Renaud Road and 2980, 3054 & 3080 Navan Road Part Lot 6, Concession 3, Ottawa Front, Geographic Township of Gloucester Carleton, County Ottawa, Ontario	Paterson Group	Not immediately adjacent, but within 100m	No further work
P378-0042-2020	Stage 1 Archaeological Assessment Proposed Residential Development 6101 Renaud Road and 2980, 3054, & 3080 Navan Road Part Lot 6, Concession 3, Ottawa Front, Geographic Township of Gloucester Carleton, County Ottawa, Ontario	Paterson Group	Not immediately adjacent, but within 100m	Stage 2
P378-0032-2018	Stage 1 - 2 Archaeological Assessment: 2983 Navan Road, Part Lot 6, Concession 3, Geographic Township of Gloucester, Carleton County, City of Ottawa, Ontario	Paterson Group	Not immediately adjacent, but within 100m	No further work
P336-0192-2017	Stage 1 Archaeological Assessments of 2871 Navan Road Part Lot 7, Concession 3, Ottawa Front, Geographic township of Gloucester, City of Ottawa, Ontario	Past Recovery	Not immediately adjacent, but within 200m	No further work
P376-0016-2017	Stage 1 Archaeological Assessment Vanguard Drive Extension Environmental Assessment Study, Part Lots 1-2, Concession 11, Geographic Township of Cumberland, Russell County & Part Lot 1, Concession 3 Ottawa River, Geographic Township of Gloucester, Carleton County; City of Ottawa, Ontario	Letourneau Heritage Consulting	Immediately adjacent, but not within	Stage 2
P340-0064-2017	Stage 1 & 2 Archaeological Assessment for 3604-3646 Innes Road Part of Lot 4, Concession 3, Ottawa Front, Geographic Township of Gloucester, Carleton County, City of Ottawa, Ontario.	Golder Associates	Not immediately adjacent, but within 100m	No further work
P415-0154-2017	**Stage 2 Archaeological Assessment: Chapel Hill Park and Ride Part of Lots 6 and 7, Concession 3 on the Ottawa River, Geographic Township of Gloucester, former Carleton County, now City of Ottawa, Ontario**	**Stantec Consulting**	**Within the study area**	**No further work**
P369-0048-2016	Stage 2 Archaeological Assessment Trailsedge East Subdivision Part Lots 1-3 Concession 3 Geographic Township of Gloucester Carleton, County Ottawa, Ontario	Paterson Group	Not immediately adjacent, but within ca 600m	No further work
P366-0040-2013	**Stage 1 Archaeological Assessment East Urban Community Centre (EUC) Project Community Design Plan (CDP) Lots 1-4 Concession 3 Geographic Township of Gloucester and Lots 1-2 Concession 11 Geographic Township of Cumberland City of Ottawa Ontario**	**Paterson Group**	**Within the study area**	**Stage 2**
P366-0042-2013	Stage 1 Archaeological Assessment Eden Park (East Trails Edge) Subdivision Lots 1-3 Concession 3 Geographic Township of Gloucester City of Ottawa Ontario	Golder Associates	Immediately adjacent, but not within	Stage 2
P415-0059-2015	**Stage 1 Archaeological Assessment: Proposed Chapel Hill Park and Ride Facility Part of Lots 6 and 7, Concession 3 on the Ottawa River, Geographic Township of Gloucester, former Carleton County, now City of Ottawa, Ontario**	**Stantec Consulting**	**Within the study area**	**Stage 2**

PIF	Title	Company	Relation to Study Area	Recommendations
1999	**Stage 1 Archaeological Assessment of the Hydro transmission corridor from the Hawthorne transformer Station (Ottawa), to the Cumberland Junction, Regional Municipality of Ottawa Carleton**	**Heritage Quest**	**Encompasses the study area**	**Stage 2**

Table 1: Previous archaeological assessments in the vicinity of the study area.

A Stage 1 archaeological assessment (P415-0059-2015) for the Chapel Hill Park and Ride facility on Part Lots 6 and 7, Concession 3 Ottawa Front recommended a Stage 2 assessment for that property (Stantec Consulting Ltd 2016), which resulted in no further work being recommended (P415-0514-2017) (Stantec Consulting Ltd 2017).

A Stage 1 archaeological assessment of a property within Part Lots 1 to 4, Concession 3 Ottawa Front, and Part Lots 1 and 2, Concession 11, in Cumberland was undertaken in advance of a proposed East Urban Community Century project design plan resulting in recommendation for additional Stage 2 assessment (P366-0042-2013) (Golder Associates Ltd 2013).

A Stage 1 archaeological assessment undertaken by Heritage Quest in 1999 covered a large portion of the current study area (Heritage Quest 1999). This assessment, undertaken prior to the Ministry of Citizenship and Multiculturalism's current *Standards and Guidelines*, recommended further Stage 2 work in areas with moderate or high archaeological potential. Within this report multiple previous assessments undertaken in the vicinity during the 1990s were referenced, however, specific information about results or recommendations is not provided in detail.

4.3.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database indicated there are 26 registered archaeological sites within 5 km of the study area. These sites are outlined below in Table 2. Three of the sites are listed as pre-contact Indigenous sites with the remainder being post-contact Euro-Canadian or not specified.

Borden	Site Name	Time Period	Affinity	Site type	Status
BiFv-9	Borthwick Ridge	Post-Contact	Euro-Canadian	Homestead	
BiFv-3					
BiFv-27	Taillefer	Post-Contact	Euro-Canadian	Homestead	No Further CHVI
BiFv-26	Mahar Site	Post-Contact		Farmstead	No Further CHVI
BiFv-25	**Proulx**	**Post-Contact**		**Agricultural**	**No Further CHVI**
BiFv-24	Little	Post-Contact	Euro-Canadian	Agricultural	Further CHVI
BiFv-22	Mer Bleu				
BiFv-20					
BiFv-2					
BiFv-19	William E. Hay Centre	Post-Contact			
BiFv-17	Bareille-Snow	Post-Contact		Farmstead	No Further CHVI
BiFv-16	Lang	Post-Contact		Farmstead	Further CHVI
BiFv-14	Belanger/Corbeille farmstead	Post-Contact	Euro-Canadian	Farmstead	
BiFv-13	Rathwell/Kehoe Farmstead	Post-Contact	Euro-Canadian	Cabin, farmstead, workshop	
BiFv-11	Cosgrove	Post-Contact	Euro-Canadian	Farmstead	No Further CHVI
BiFv-10	Little Farmstead	Post-Contact	Euro-Canadian	Farmstead	
BiFv-1	Graham Farm	Post-Contact	Euro-Canadian	Other privy, farmstead, homestead, house, midden	
BiFu-9	Location 1	Post-Contact		Farmstead	Further CHVI
BiFu-8	Ferrin Site	Post-Contact	Euro-Canadian	Homestead	No Further CHVI
BiFu-7	Cardinal Creek site	Post-Contact	Euro-Canadian		
BiFu-6	-	Pre-Contact	Aboriginal	Scatter	
BiFu-5	Cardinal Creek Homestead	Post-Contact	Euro-Canadian	Homestead	
BiFu-4		Pre-Contact	Aboriginal	Camp / campsite	No Further CHVI
BiFu-3		Post-Contact	Euro-Canadian	Farmstead	No Further CHVI

Borden	Site Name	Time Period	Affinity	Site type	Status
BiFu-2		Pre-Contact	Aboriginal	Camp / campsite	No Further CHVI
BiFu-10	Location 2	Post-Contact		Farmstead	Further CHVI

Table 2: Registered Archaeological Sites within 5km of the study area.

While none of the sites are within 50 m of the study area, the Proulx Site (BiFv-25) is located immediately to the south of the study area and was subject to a Stage 3 assessment in 2020 (P378-0049-2020). The Stage 3 concluded that the site did not require further investigation as it was not considered to be culturally significant as 80% or more of the archaeologically documented occupation of the property did not predate 1870 and was not associated with the first generation of settlement in the area (Paterson Group 2021).

There are no known commemorative plaques within the vicinity of the study area.

4.4 Archaeological Potential

Potential for pre-contact Indigenous sites is based on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e.g., ridges, knolls, eskers, wetlands), the types of soils found within the area of assessment, and resource availability. Potential for historical Euro-Canadian sites is based on proximity to historic transportation routes, historic community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites.

The City of Ottawa has an archaeological management plan which was developed in 1999, *The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton*. The management plan covers the Townships of Gloucester and Cumberland (Archaeological Services Inc. and Geomatics International Inc 1999). According to the management plan, some sections of the study area fall within an area of archaeological potential.

The archaeological potential at each operation is described in Table 3 and Map 3.

Operation	Indigenous Pre-Contact Archaeological Potential	Euro-Canadian Archaeological Potential
A	Potential exists based on proximity to Ramsay Creek	Potential exists based on early patent dates, proximity to house on historic mapping
B	Potential exists based on proximity to Ramsay Creek and the well drained soils	Potential exists based on early patent dates, proximity to house on historic mapping
C	Potential exists based on proximity to Borthwick Creek	Low potential due to lack of settlement, modern road
D	Potential exists based on proximity to tributary of Green's Creek and the Dolman Ridge	Low potential due to lack of settlement, modern road
E	Potential exists based on proximity to Mer Bleu Bog and tributary of Green's Creek	Low potential due to lack of settlement, location in the bog
F	Potential exists based on good agricultural soils, proximity to Mer Bleu Bog and tributary of Green's Creek	Potential exists based on early patent date
G	Potential exists based on proximity to Green's Creek	Potential exists based on historic Renaud Road
H	Potential exists based on some areas with good agricultural soils, small creek in the western portion	Potential exists due to early patent dates (1802-1871), historic structures in proximity to study area in Lots 1, 5, and 7, proximity to Mer Bleu Road, Navan Road, Page Road

Table 3: Archaeological Potential

5.0 Indigenous Engagement

Indigenous Engagement for this Stage 1 assessment included outreach to the Algonquins of Pikwakanagan and the Algonquins of Ontario. The Record of Engagement is provided in the Supplementary Documentation package. A liaison from the Algonquins of Pikwakanagan First Nation was present during the site visit on May 8, 2025. A final draft of this report will be shared with Indigenous communities for review with comments to be addressed prior to MCM submission.

6.0 Field Methods

A site visit was undertaken on May 8, 2025, to confirm general site conditions and to determine what survey strategies and effort would be appropriate for a Stage 2 assessment. This site visit was not a Property Inspection as per Standard 1.2 (MCM 2011) as the entire area was not systematically inspected. Due to the large size and difficult accessibility of large sections of the study area, random spot checking from accessible locations was completed with a liaison from the Algonquins of Pikwakanagan First Nation. This does not meet the Standards under Section 1.2 for sufficient coverage but does provide a general overview of current conditions.

Permission to access the property was provided by the proponent with no limitations. Weather conditions were overcast and breezy with a temperature of 5°C. Ground surfaces were clear of obstruction and visibility was excellent.

Study area boundaries were determined in the field using a 20 m buffer either side of the centre line of the corridor, as provided by the proponent, overlaid in ESRI Field Map. This data layer was then accessed on an iPad 9th Generation with GPS for real-time positioning in the field with horizontal accuracies averaging +/- 5 m. All survey data is compiled into ArcGIS and every survey point has a UTM Zone 18T NAD 83 coordinate.

Field notes and photographs of the property were taken during the visit to document the current land conditions as per Standard 1.a., Section 7.8.6 (MCM 2011). Locations of all photos included in this report are shown on Maps 4 to 11, identified by figure number. Site photograph, document, and map catalogues appear in Appendices A, B, and C.

7.0 Record of Finds

The 21.5 ha study area generally follows an existing hydro corridor stretching between the Hawthorne Transformer Station near Walkley Road and Hawthorne Road in the west and the Orleans Transformer Station near Innes Road and Tenth Line Road in the east. The study area mainly consists of forested or overgrown meadows, marshland, some agricultural fields, and the roads that cross the corridor.

Operation A

Operation A consists of the western terminus of the Hydro line at the Hawthorne Transformer Sstation.The area is mainly overgrown scrubland that appears to have been significantly modified in some areas through development of the railway, Highway 417, and the hydro infrastructure. There are fence lines, pathways, work yards, and Hydro Road within this portion of the study area. Examples of conditions in the operation, including areas of deep disturbance, can be seen in Map 4 and Figure 1 to Figure 2.

Operation B

Operation B is near the western terminus end of the study area, straddling Highway 417. This area was not accessed at the time of the property assessment; however, it appears to consist of similar conditions as Operation A, an overgrown scrubland surrounding the Highway 417 and likely at least partially disturbed through the construction of the highway in the early 1970s. Conditions are shown in Map 4.

Operation C

Operation C consists of a small section of road allowance along Ramsayville Road where Borthwick Creek crosses underneath it via a concrete culvert. The creek is narrow and slightly meandering with grassy shorelines alongside forested areas and agricultural fields. Examples of conditions in the operation can be seen in Map 5 and Figure 3 to Figure 6.

Operation D

Operation D consists of a small section of road allowance consisting of Anderson Road on the downslope of the Dolman Ridge to the south with large areas that are likely deeply disturbed. The road is surrounded by forest, scrub, and marshland on the edge of Mer Bleue Bog with the entrance to a recreational trail on either side of the road. Examples of conditions in the operation can be seen in Map 6 and Figure 7 to Figure 10.

Operation E

Operation E consists of a section of a road allowance between Concessions 3 and 4 and is within the marshland on the western side of the Mer Bleue Bog. This area was inaccessible at the time of the property inspection but appears to be similar marshland as that observed to the east of Anderson Road. Examples of conditions in the operation can be seen in Map 7 and Figure 11.

Operation F

Operation F consists of a small section of a gravel recreational path on a former railway line through a forested area that falls under the existing Hydro corridor just west of Renaud Road. That path, which is likely deeply disturbed, is surrounding by a mix of forest with overgrown meadows and some marshland. Examples of conditions in the operation can be seen in Map 8 and Figure 12.

Operation G

Operation G consists of Renaud Road where Green's Creek crosses underneath it via a culvert, with forest and agricultural fields on either side. The road is an area that is likely deeply disturbed. The creek is narrow and slightly meandering with a sloping grassy shoreline alongside forested areas and agricultural fields. Examples of conditions in the operation can be seen in Map 8 and Figure 13 to Figure 17.

Operation H

Operation H follows the Hydro corridor and is the eastern portion of the study area with the terminal end at the Orleans Transformer Station and is shown in Maps 9 to 11. The area near the transformer station, which may be disturbed from its construction, consists of partially forested overgrown scrubland with low-lying wet areas surrounded by commercial and residential properties (Figure 18 to Figure 21). The operation continues west over similar terrain and includes a large section of land that has been previously archaeologically assessed and requires no further assessment (Figure 22 to Figure 24). The western end of Operation H includes the Mud Creek Stormwater Management Area and landscape that has been extensively altered by adjacent residential development (Figure 25 to Figure 31). The Chapel Hill Park and Ride, within the operation, has been previously assessed and recommended for no further assessment. The Park and Ride sits at the edge of a ridge that slopes to the southwest from Navan Road (Figure 32 and Figure 33).

8.0 Conclusions and Recommendations

This Stage 1 assessment included a review of the MCM's archaeological sites database, relevant environmental, historical, and archaeological literature, primary historical research, and a site inspection. The assessment concluded that based on criteria outlined in the MCM's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area has both pre-contact Indigenous as well as historic Euro-Canadian archaeological potential.

The site visit confirmed much of the anticipated landscape conditions including potentially deeply disturbed areas, marshland, and significant areas suitable for Stage 2 assessment.

Based on the results of this investigation it is recommended:

1. The study area, as delineated in Map 1, exhibits archaeological potential requiring Stage 2 archaeological assessment.

2. Additional Stage 1 archaeological assessment will be required if any project impacts are planned beyond the limits of the Stage 1 project area as delineated in Map 1.

3. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the pedestrian survey method at 5 m intervals in all agricultural fields as per Section 2.1.1 (MCM 2011) (approximate area shown in green in Maps 4 to 11). Appropriate field conditions must be achieved prior to assessment as per Section 2.1.1. (MCM 2011).

4. In areas that cannot be ploughed (as per Section 2.1.2, Standard 1. MCM 2011) (approximate area shown in blue in Maps 4 to 11), a Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals, as per Section 2.1.2 (MCM 2011).

5. The extent of permanently wet areas and areas of deep and pervasive disturbance, as shown on Map 4 to 11 should be confirmed during Stage 2 assessment. As per section 2.1 Standards 2.a.i. and 2.b. (MCM 2011), should these areas meet the criteria for exclusion at the time of assessment, survey of these areas is not required.

6. Areas previously assessed and recommended to not require Stage 2 archaeological assessment under the *Standards and Guidelines for Consultant Archaeologists* (2011), where the ministry has accepted the Stage 1 report into the Ontario Public Register of Archaeological Reports (as shown in light blue on Maps 4 to 11), require no further archaeological assessment as per Section 2.1, Standard 2.c.

9.0 Advice on Compliance with Legislation

a. This report is submitted to the *Minister of Citizenship and Multiculturalism* as a condition of licencing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

b. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licenced archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licenced consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

d. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

10.0 Closure

Matrix Heritage has prepared this report in a manner consistent with the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made. The sampling strategies incorporated in this study comply with those identified in the Ministry of Citizenship and Multiculturalism's Standards and Guidelines for Consultant Archaeologists (2011) however; Archaeological Assessments may fail to identify all archaeological resources.

The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than Dillon Consulting Limited or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.

This report is pending Ministry approval.

We trust that this report meets your current needs. If you have any questions or we may be of further assistance, please contact the undersigned.

Matrix Heritage Inc.

Ben Mortimer, M.A., A.P.A.
Senior Archaeologist

Andrea Jackson, M.Litt.
Staff Archaeologist

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12.0Images



Figure 1: Example of conditions in Operation A (MH1341-D112).



Figure 2: Work yard within Operation A (MH1341-D116).



Figure 3: East side of Ramsayville Road, Operation C (MH1341-D139).



Figure 4: East side of Ramsayville Road, Operation C (MH1341-D141).



Figure 5: West side of Ramsayville Road, Operation C (MH1341-D144).



Figure 6: Creek and culvert on west side of Ramsayville Road, Operation C (MH1341-D146).



Figure 7: Anderson Road, Operation D (MH1341-D131).



Figure 8: Conditions along Anderson Road, Operation D (MH1341-D135).



Figure 9: Conditions along Anderson Road, Operation D (MH1341-D137).



Figure 10: Western side of Anderson Road, Operation D (MH1341-D089).



Figure 11: General conditions towards Operation E (MH1341-D084).



Figure 12: Conditions in Operation F (MH1341-D073).



Figure 13: Renaud Road, Operation G (MH1341-D127).



Figure 14: East side of Renaud Road, Operation G (MH1341-D122).



Figure 15: East side of Renaud Road, Operation G (MH1341-D124).



Figure 16: West side of Renaud Road, Operation G (MH1341-D128).



Figure 17: West side of Renaud Road, Operation G (MH1341-D129).



Figure 18: General conditions at the eastern end of study area, Operation H (MH1341-D002).



Figure 19: Example of conditions by Orleans Transformer Station, Operation H (MH1341-D004).



Figure 20: Example of conditions by transformer station, Operation H (MH1341-D008).



Figure 21: Conditions at the eastern end of study area, Operation H (MH1341-D012).



Figure 22: Example of conditions in Operation H (MH1341-D014).



Figure 23: Example of conditions in Operation H (MH1341-D017).



Figure 24: Example of conditions within Operation H (MH1341-D019).



Figure 25: Example of conditions east of Park and Ride, Operation H (MH1341-D026).



Figure 26: Walking path south of Page Road, Operation H (MH1341-D032).



Figure 27: Stormwater management pond within study area, Operation H (MH1341-D033).



Figure 28: Stormwater management pond, Operation H (MH1341-D039).



Figure 29: Stormwater management pond, Operation H (MH1341-D041).



Figure 30: Conditions within Operation H (MH1341-D045).



Figure 31: Conditions within Operation H (MH1341-D046).

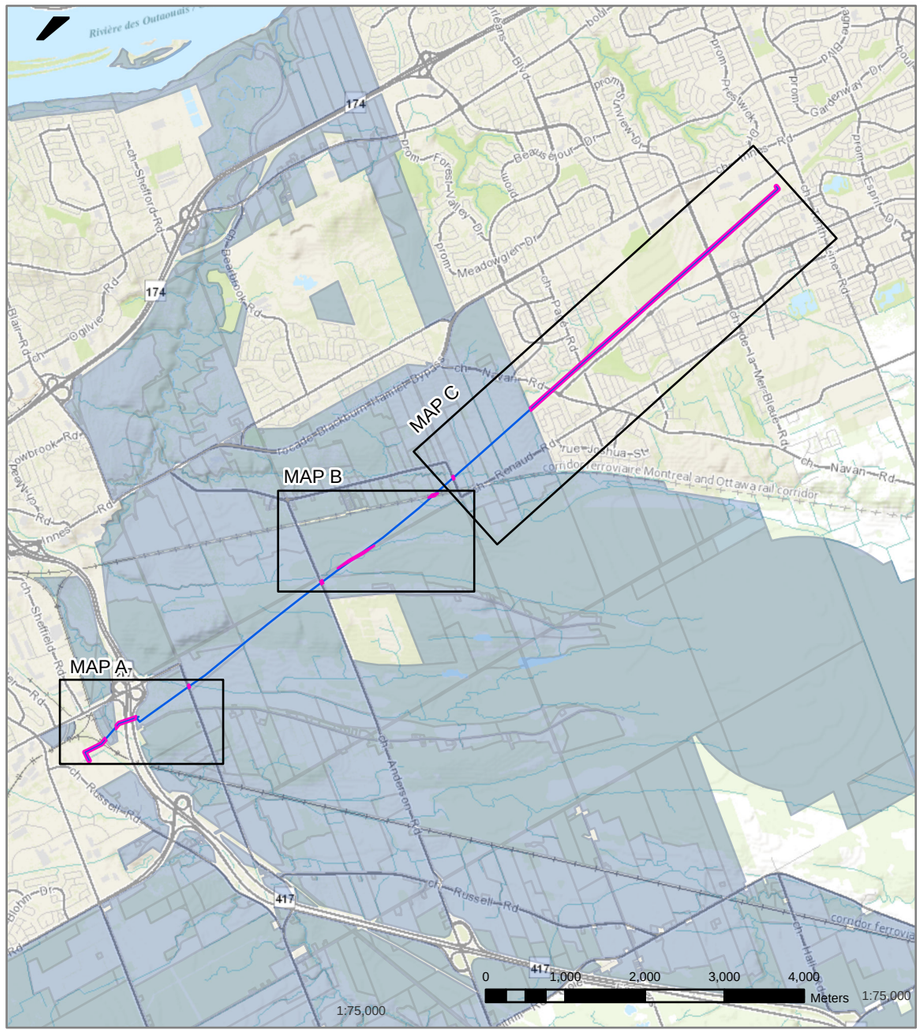


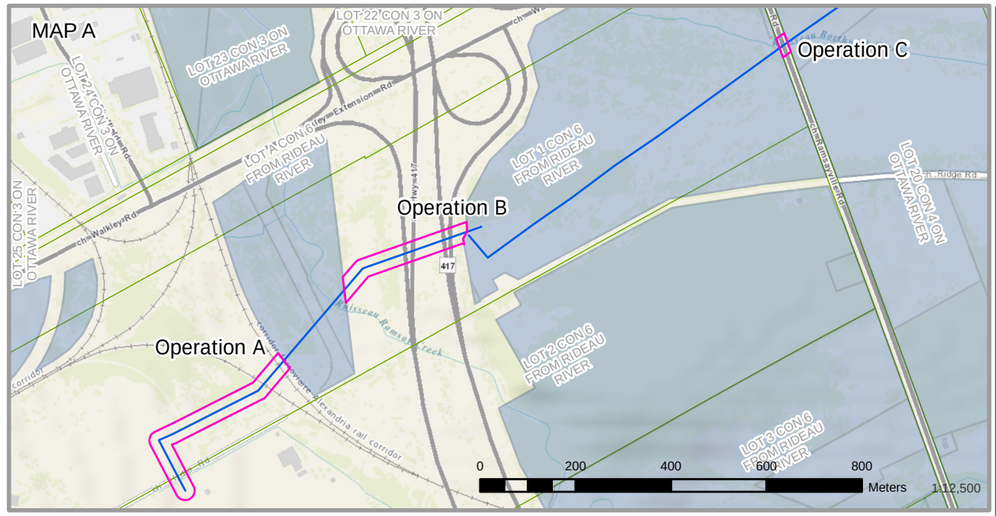
Figure 32: View of study area from Navan Road, Operation H (MH1341-D056).

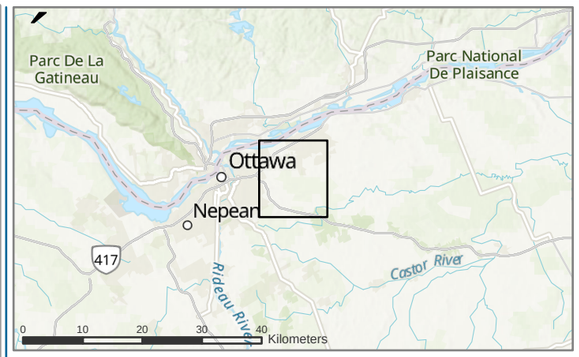


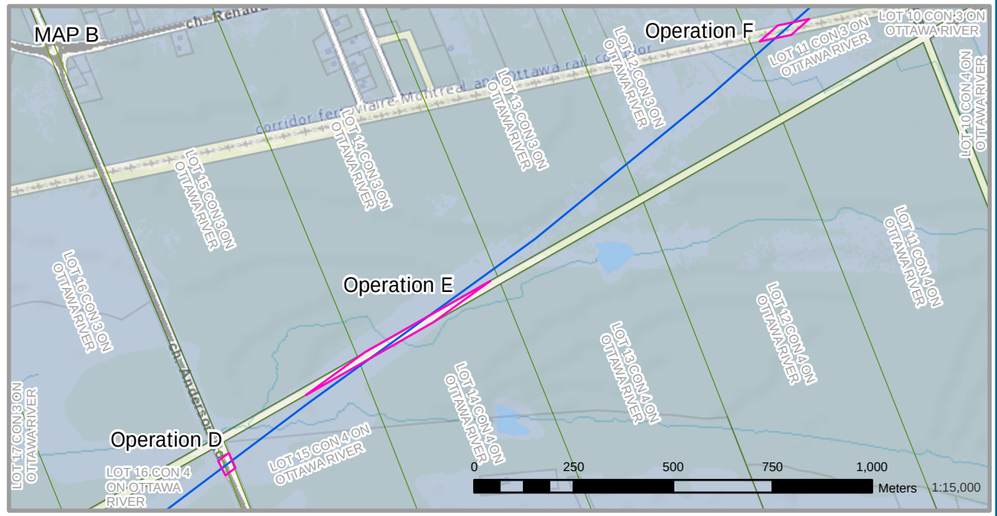
Figure 33: Chapel Hill Park and Ride, Operation H (MH1341-D057).

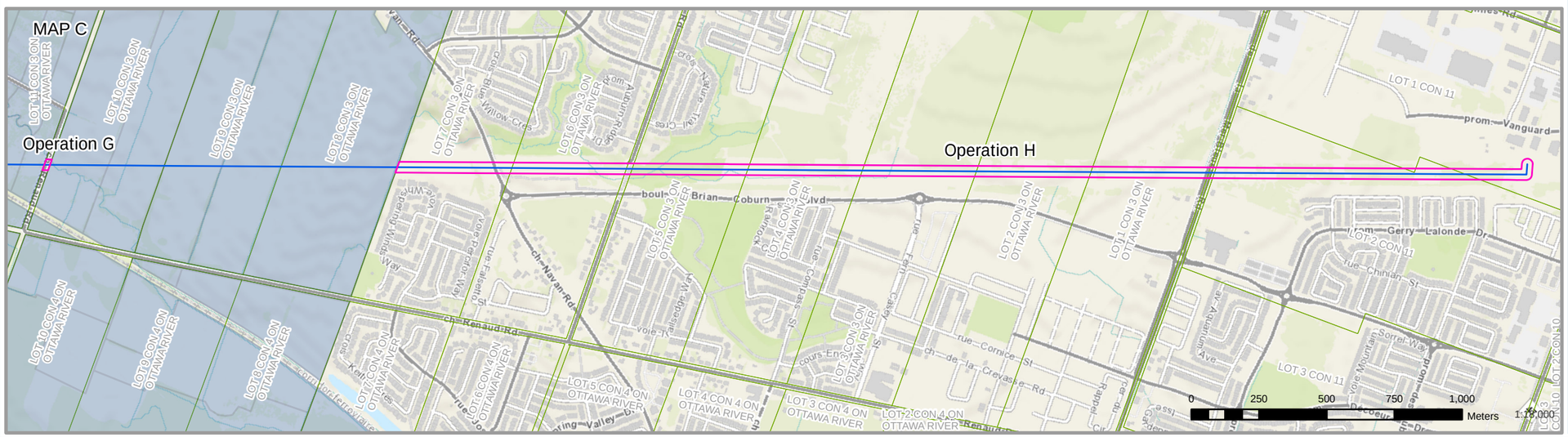
13.0 Maps











LEGEND

- STUDY AREA
- FEDERAL LAND OWN AND MANAGED BY NCC
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

Matrix

REFERENCES:
CITY OF OTTAWA/VILLE D'OTTAWA, ESRI, CGIAR, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, HTTPS://WWW.ONTARIO.CA/PAGE/OPEN-GOVERNMENT-LICENCE-ONTARIO

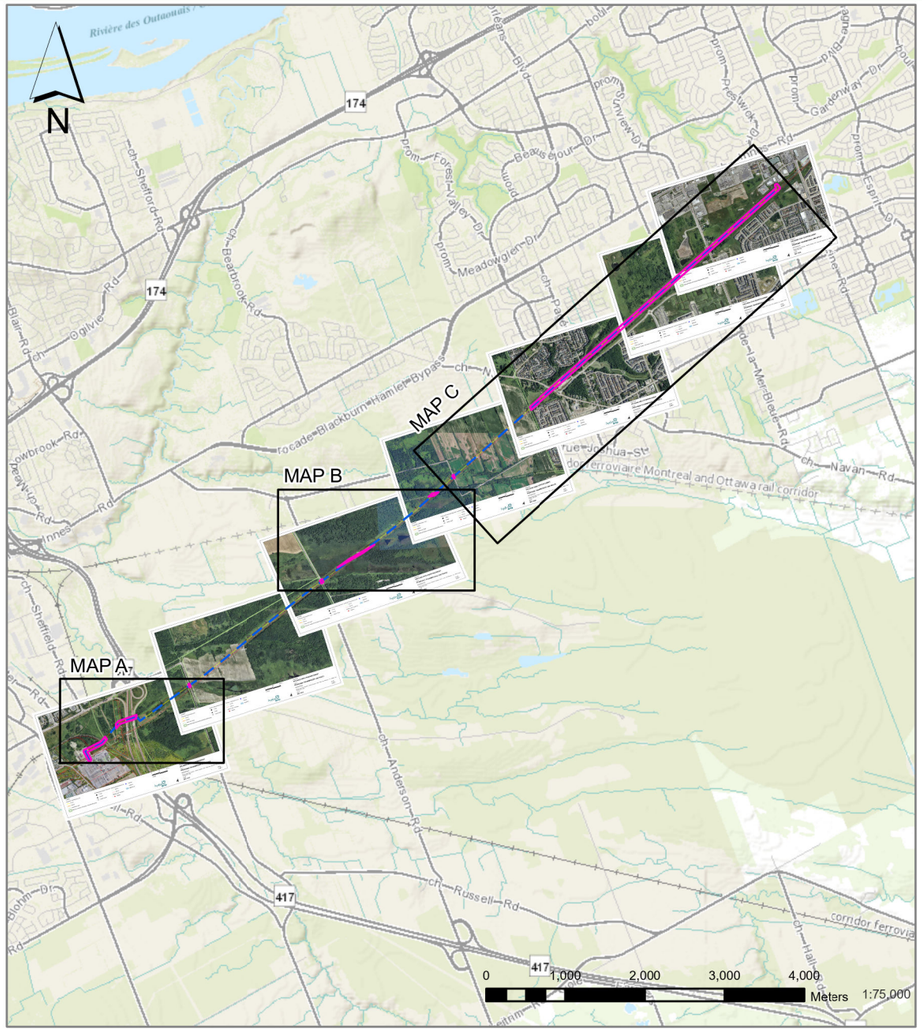
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CHECKED BY: NK

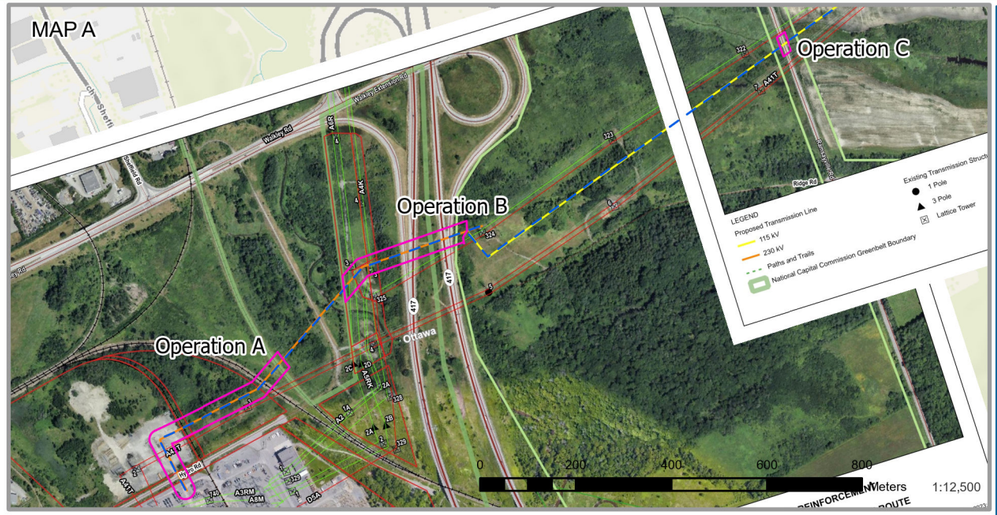
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

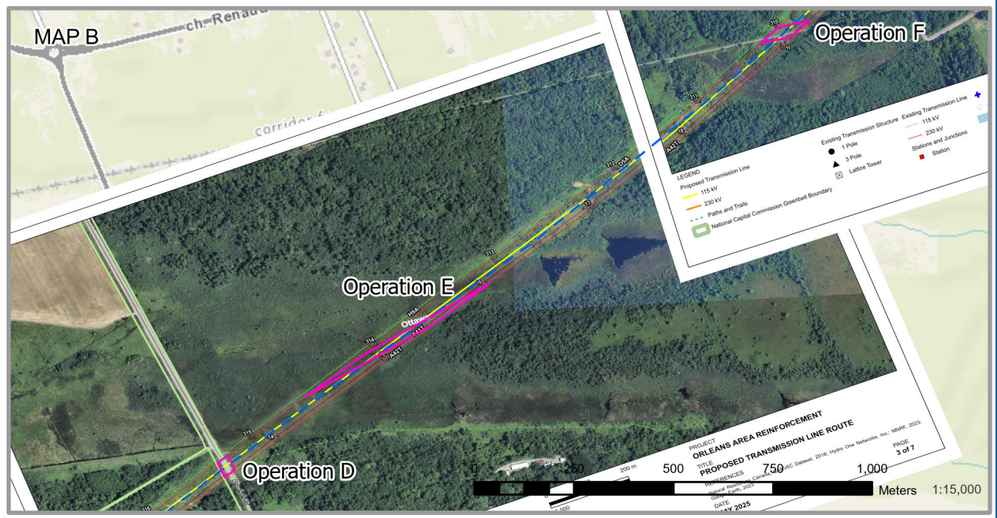
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LOCATION

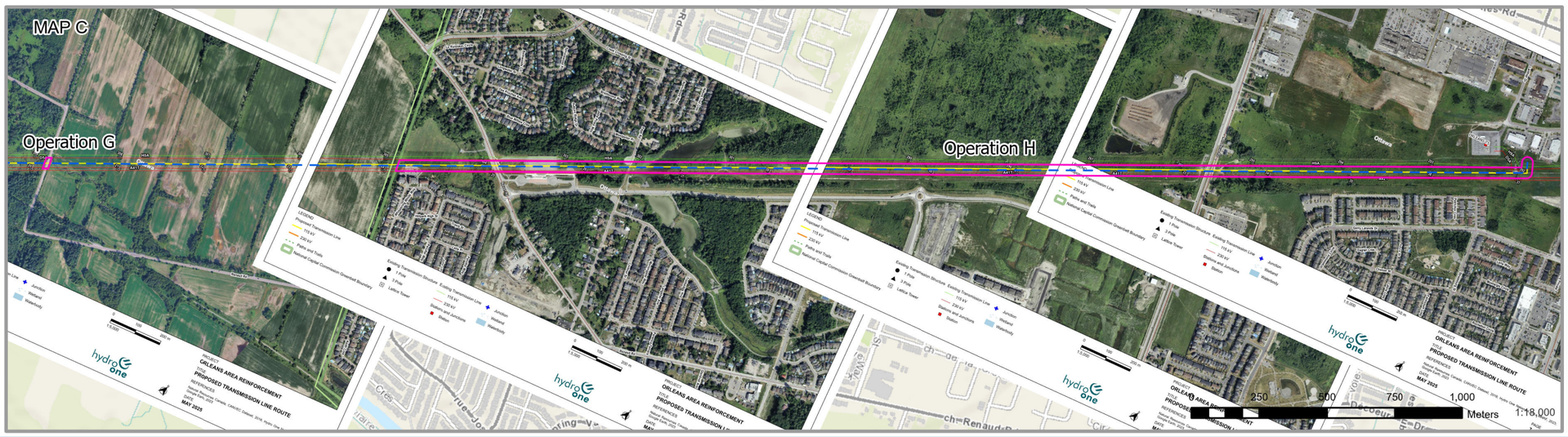
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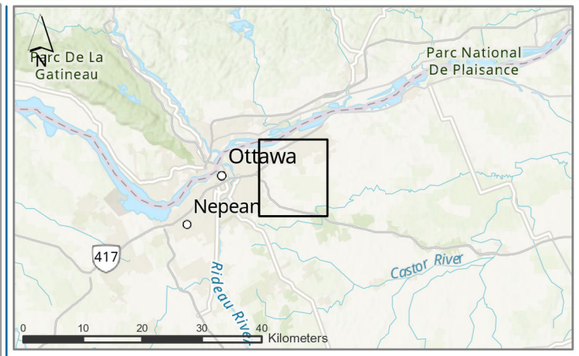
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LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

Matrix

REFERENCES:
CITY OF OTTAWA/VILLE D'OTTAWA, ESRI, CGIAR, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

FILE MH1341-R1 DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N CHECKED BY:NK

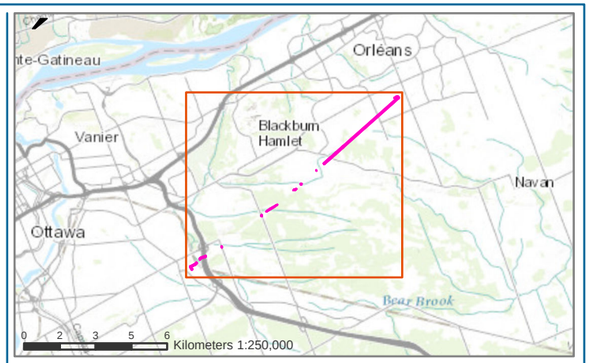
PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
LOCATION

MAP
2

Folder: C:\Users\jmarc\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 AOA - Orleans Hydro Corridor\GIS\





LEGEND

- STUDY AREA
- CITY OF OTTAWA 1999 ARCHAEOLOGICAL POTENTIAL MAP

0 0 1 1 1 Kilometers 1:30,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, ESRI, NASA, NGA, USGS, FEMA, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

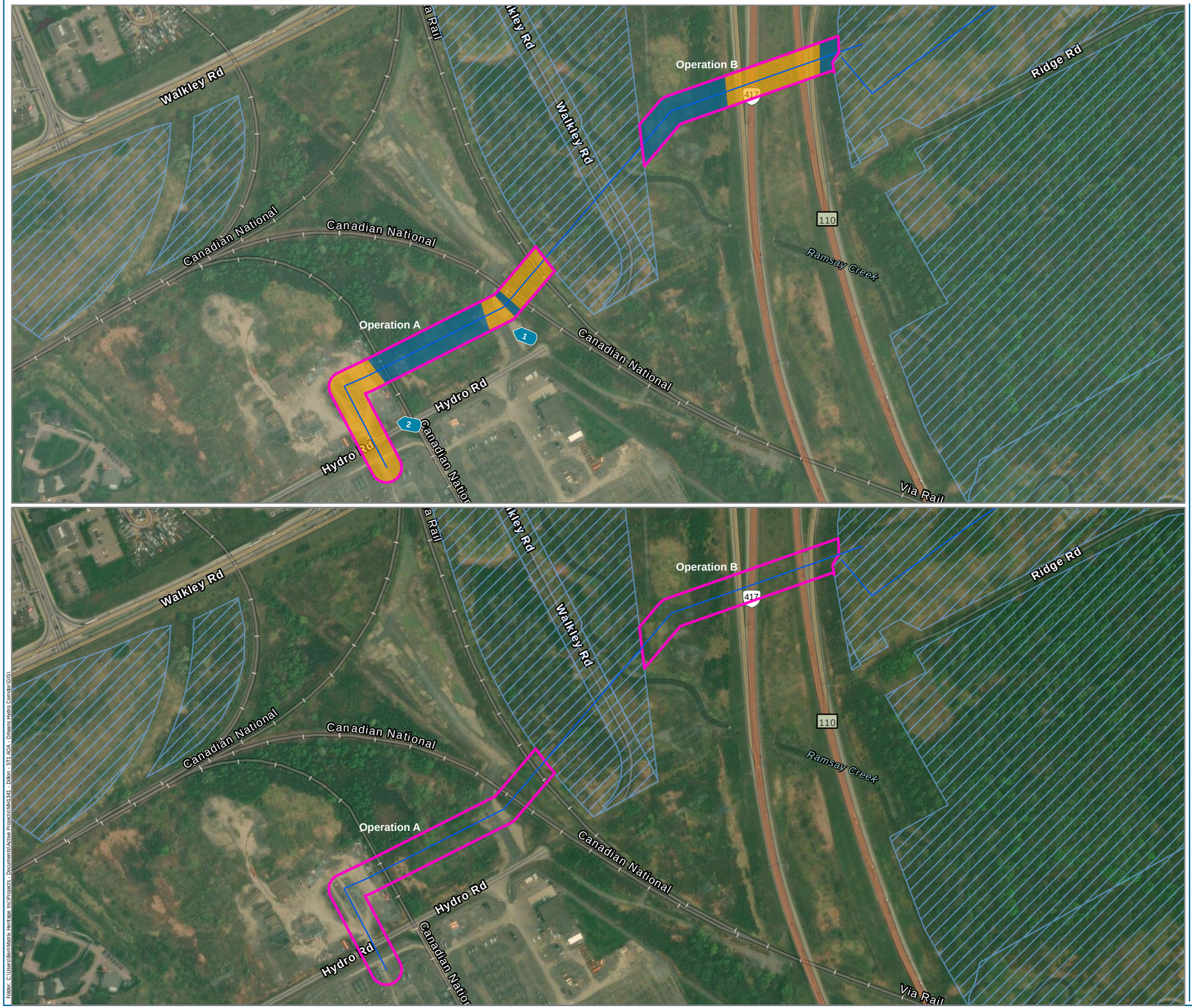
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DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY: BM

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
POTENTIAL

MAP
3

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LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE
- FEDERAL LANDS MANAGED BY NCC

STAGE 2 ASSUMED ASSESSMENT METHOD

ARCHAEOLOGICAL POTENTIAL - ASSESSMENT REQUIRED

- SHOVEL TEST (5 M INTERVAL)

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- DEEPLY DISTURBED
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

0 50 100 Meters

1:5,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, MAXAR

MAPPING OF RECOMMENDATIONS IS APPROXIMATE

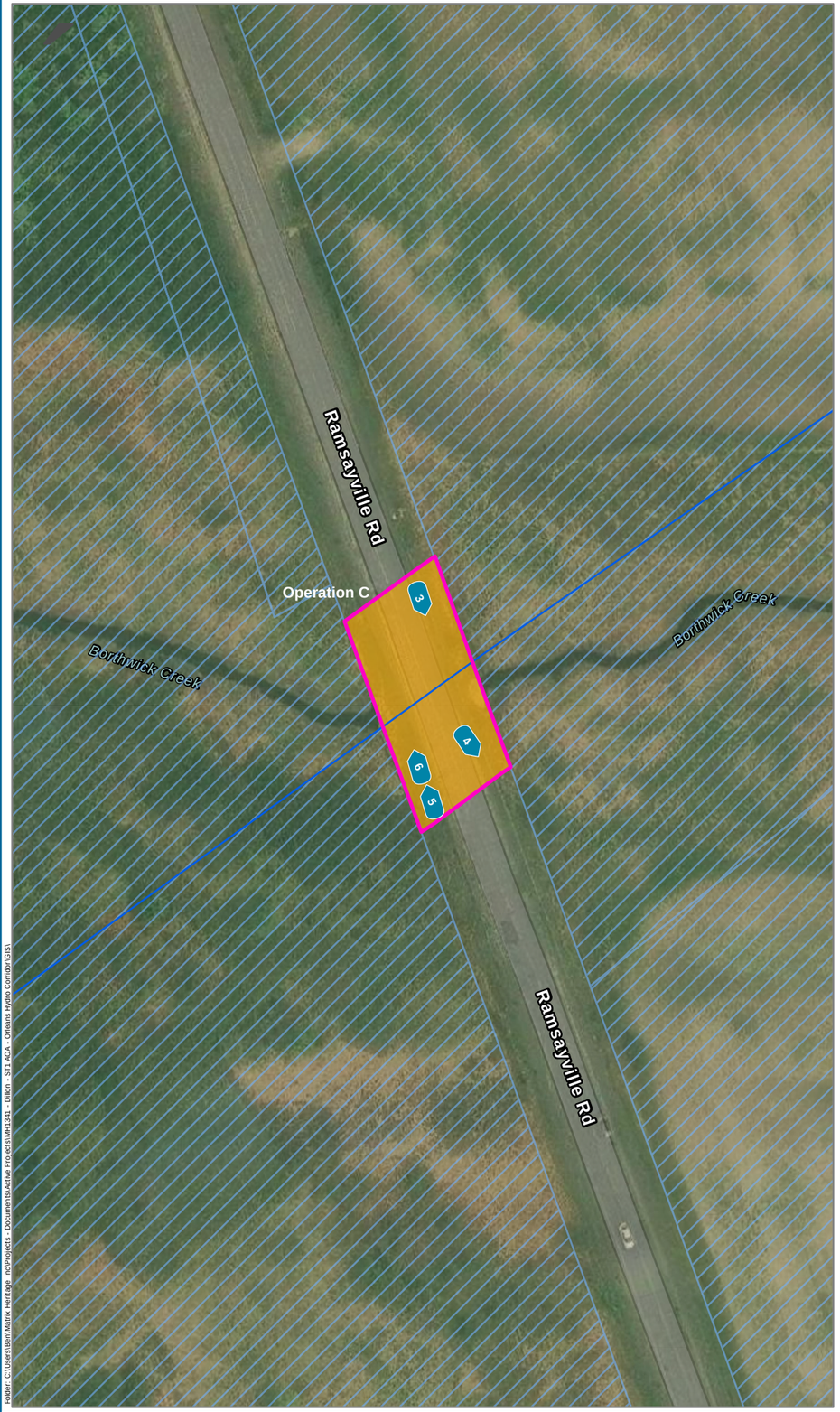
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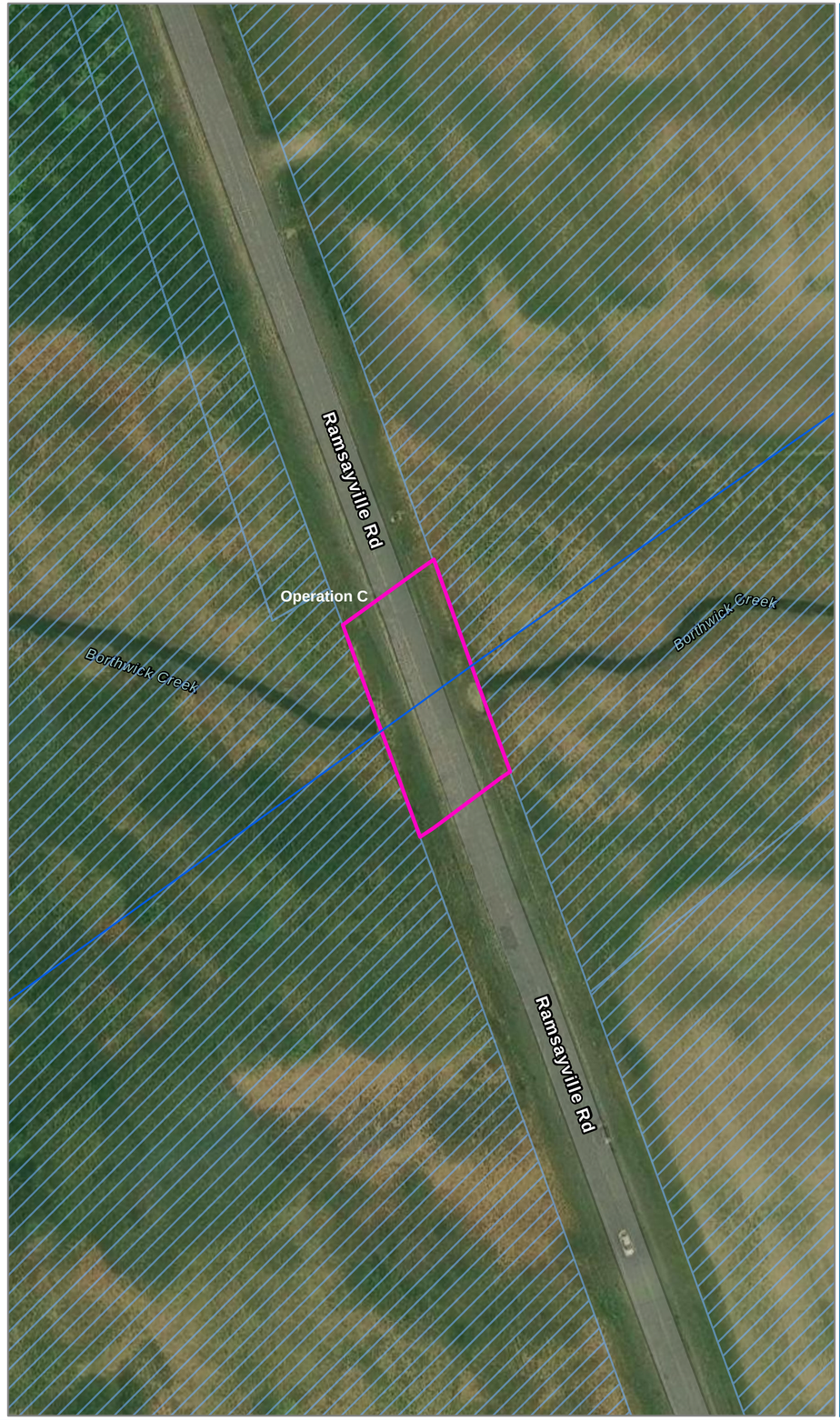
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

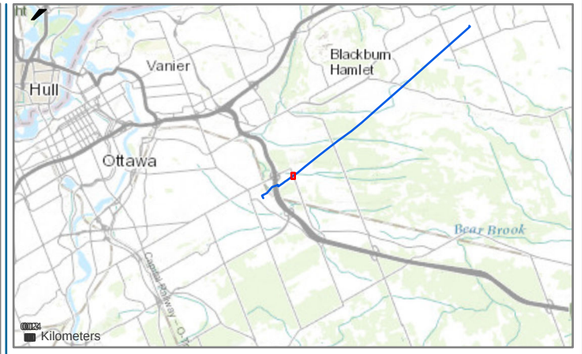
TITLE **CONDITIONS AND RECOMMENDATIONS 1**

MAP 4

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LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE
- FEDERAL LANDS MANAGED BY NCC

STAGE 2 ASSUMED ASSESSMENT METHOD

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- DEEPLY DISTURBED
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

0 5 10 15 20 Meters 1:1,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, SDG COUNTIES, MAXAR, MICROSOFT

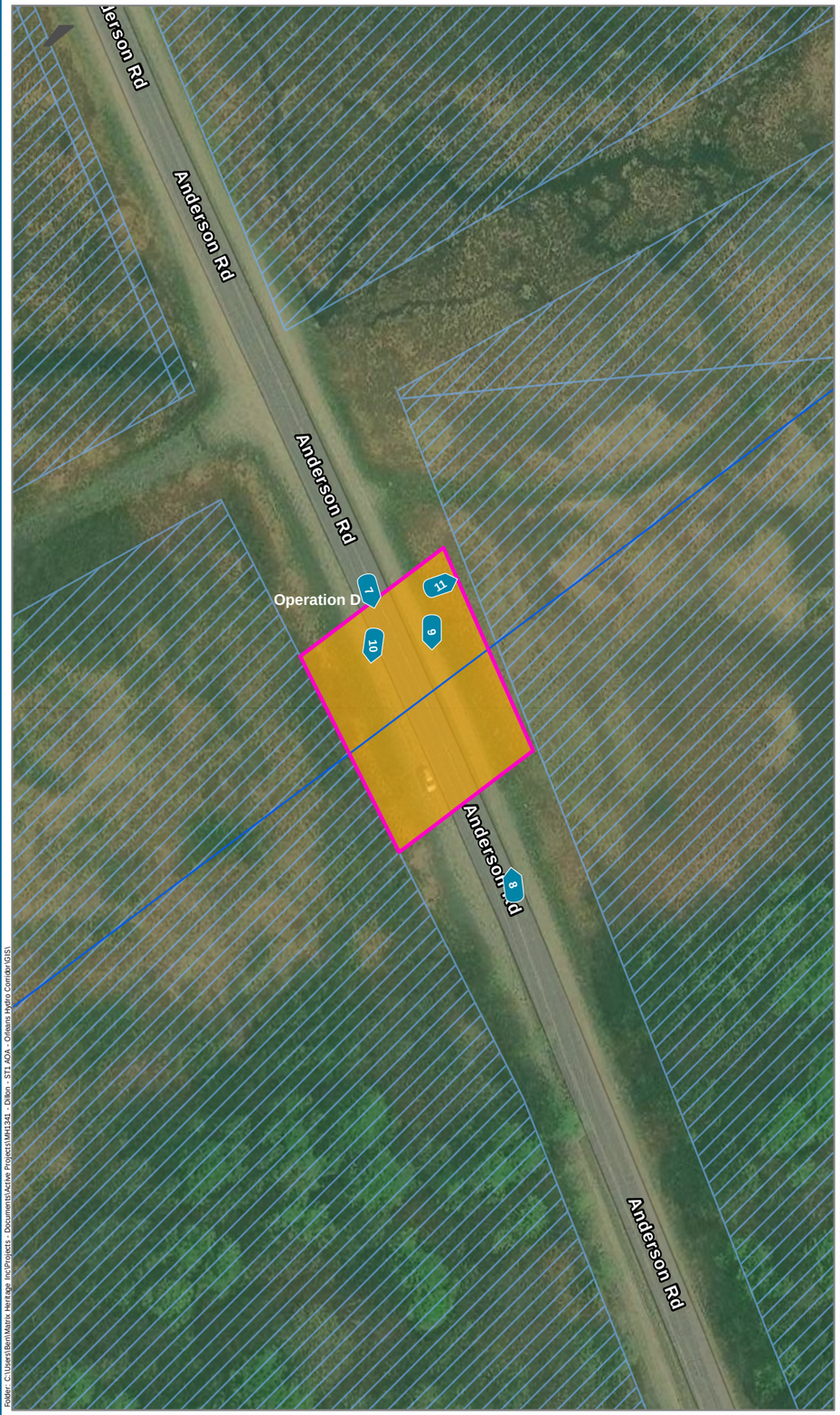
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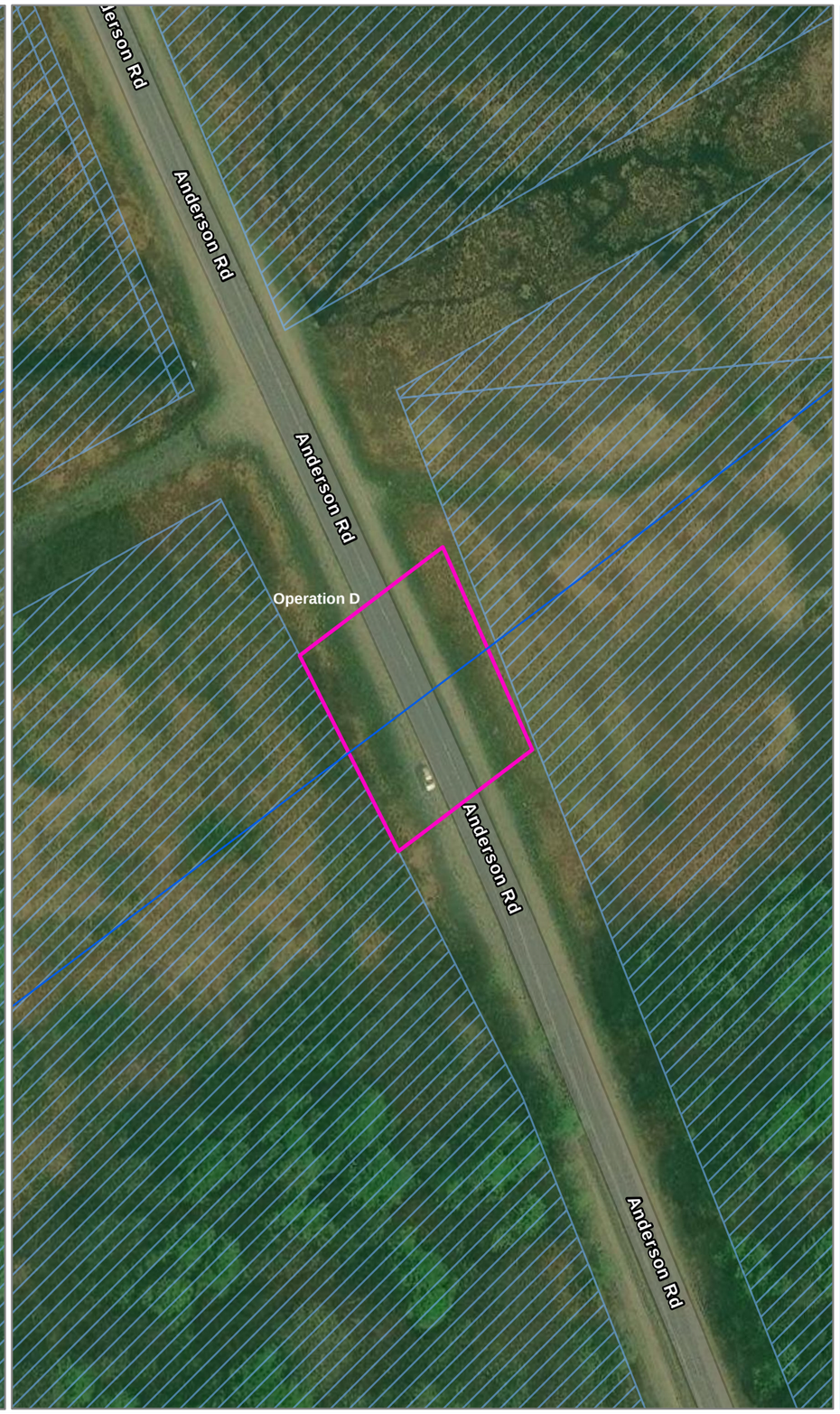
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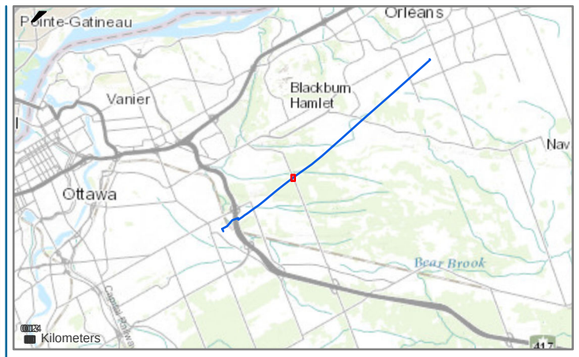
PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 2** MAP 5

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LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE
- FEDERAL LANDS MANAGED BY NCC

STAGE 2 ASSUMED ASSESSMENT METHOD

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- DEEPLY DISTURBED
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

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Meters
1:1,000

REFERENCES:
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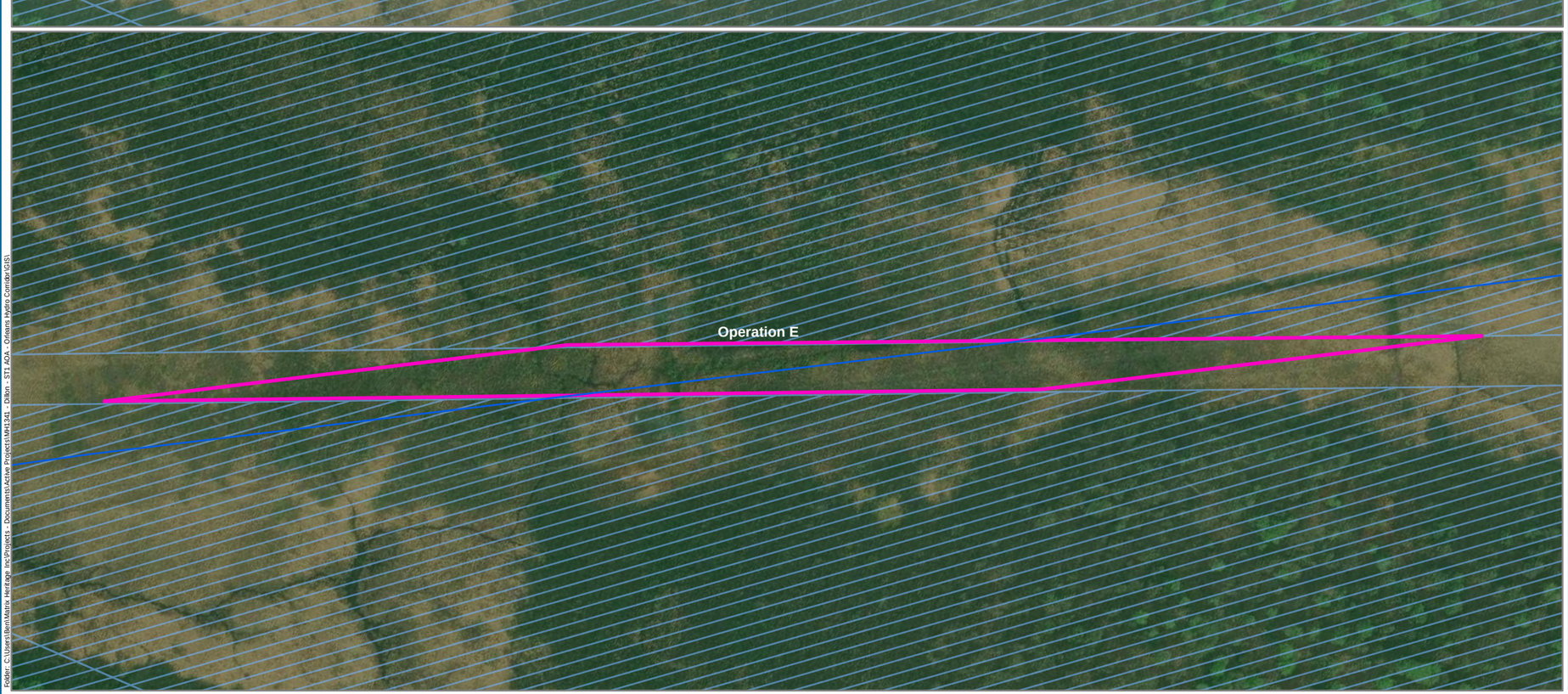
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DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY:BM

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 3**
MAP 6

Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 ADA - Orleans Hydro Corridor\GIS\







LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

STAGE 2 ASSUMED ASSESSMENT METHOD

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- PERMANENTLY WET
- FEDERAL LANDS MANAGED BY NCC
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

0 10 20 30 40
Meters
1:2,000

REFERENCES:
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MAPPING OF RECOMMENDATIONS IS APPROXIMATE

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DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
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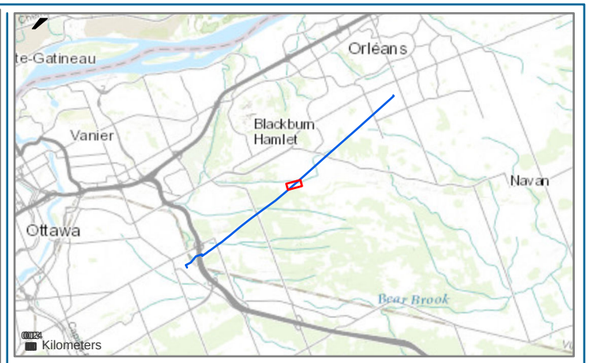
PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 4**
MAP 7

Folder: C:\Users\BenMatrix Heritage, Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 AOA - Orleans Hydro Corridor\GIS\







LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

STAGE 2 ASSUMED ASSESSMENT METHOD

ARCHAEOLOGICAL POTENTIAL - ASSESSMENT REQUIRED

- SHOVEL TEST (5 M INTERVAL)

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- DEEPLY DISTURBED
- FEDERAL LANDS MANAGED BY NCC
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

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Meters
1:2,000

REFERENCES:
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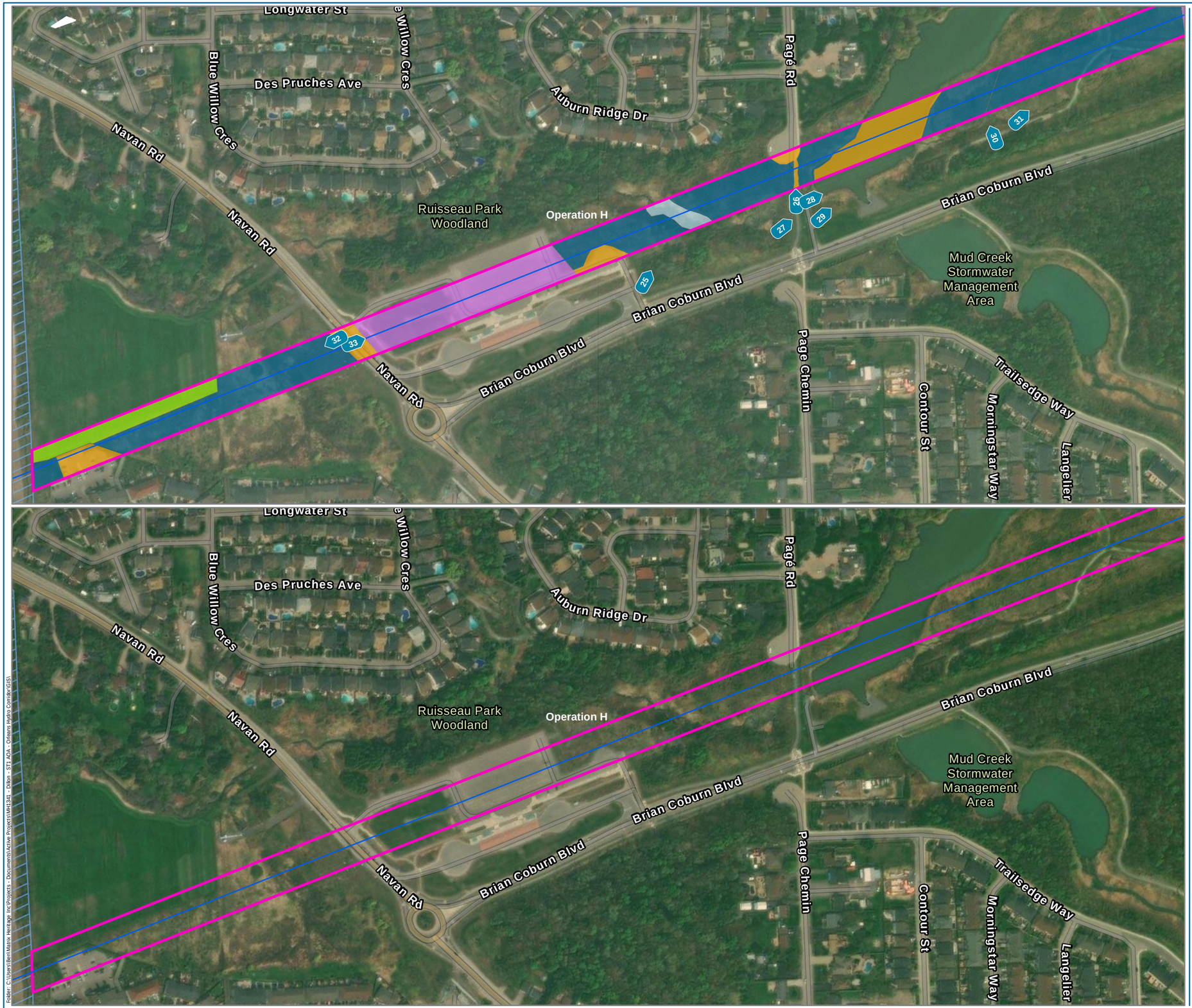
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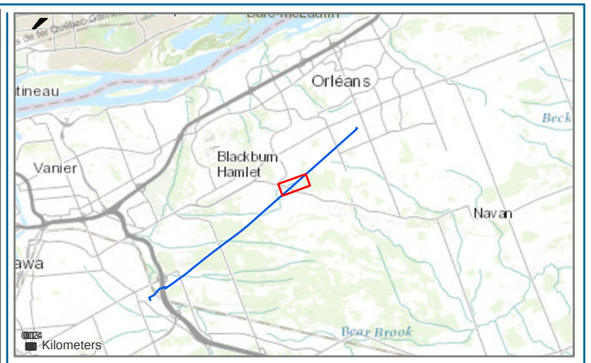
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PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY:BM

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 5**
MAP 8

Folder: C:\Users\BenMatrix Heritage, Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 AOA - Orleans Hydro Corridor\GIS\





LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

STAGE 2 ASSUMED ASSESSMENT METHOD

ARCHAEOLOGICAL POTENTIAL - ASSESSMENT REQUIRED

- SHOVEL TEST (5 M INTERVAL)
- PEDESTRIAN (5 M INTERVAL)

LOW/NO ARCHAEOLOGICAL POTENTIAL - POSSIBLY FOR EXCLUSION DURING STAGE 2

- PERMANENTLY WET
- DEEPLY DISTURBED

NO FURTHER ASSESSMENT REQUIRED

- PREVIOUSLY ASSESSED
- FEDERAL LANDS MANAGED BY NCC
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

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1:4,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, MAXAR

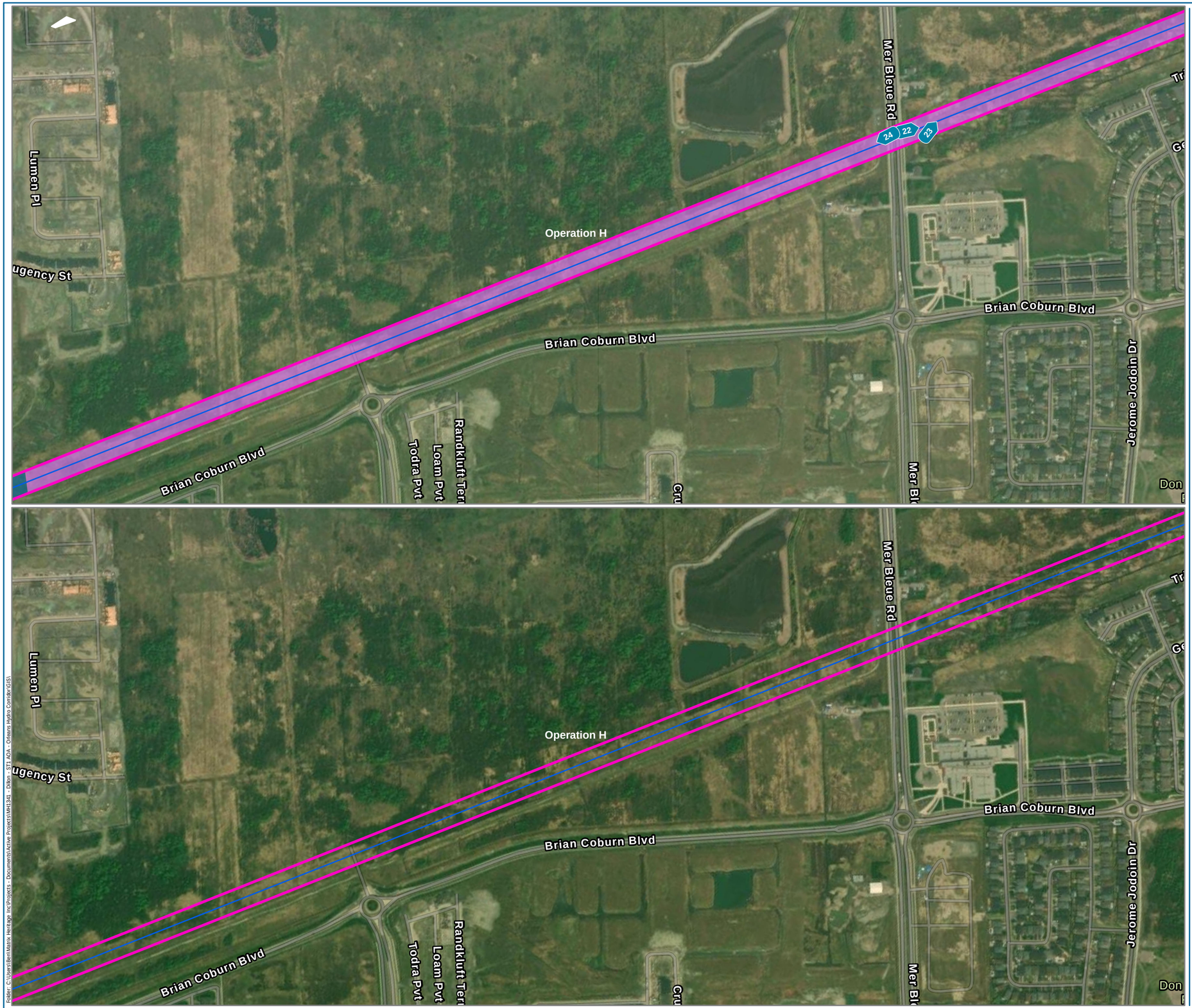
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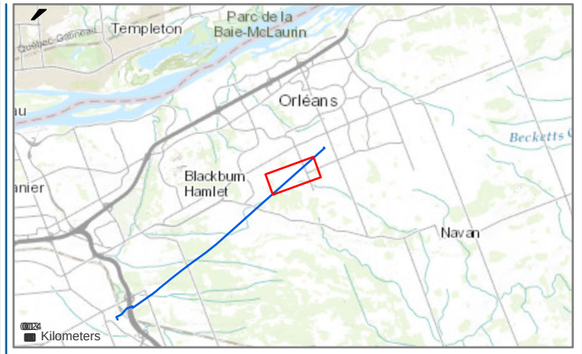
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PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 6**
MAP 9

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LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

STAGE 2 ASSUMED ASSESSMENT METHOD

ARCHAEOLOGICAL POTENTIAL - ASSESSMENT REQUIRED

- SHOVEL TEST (5 M INTERVAL)

NO FURTHER ASSESSMENT REQUIRED

- PREVIOUSLY ASSESSED
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

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Meters

1:7,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, MAXAR

MAPPING OF RECOMMENDATIONS IS APPROXIMATE

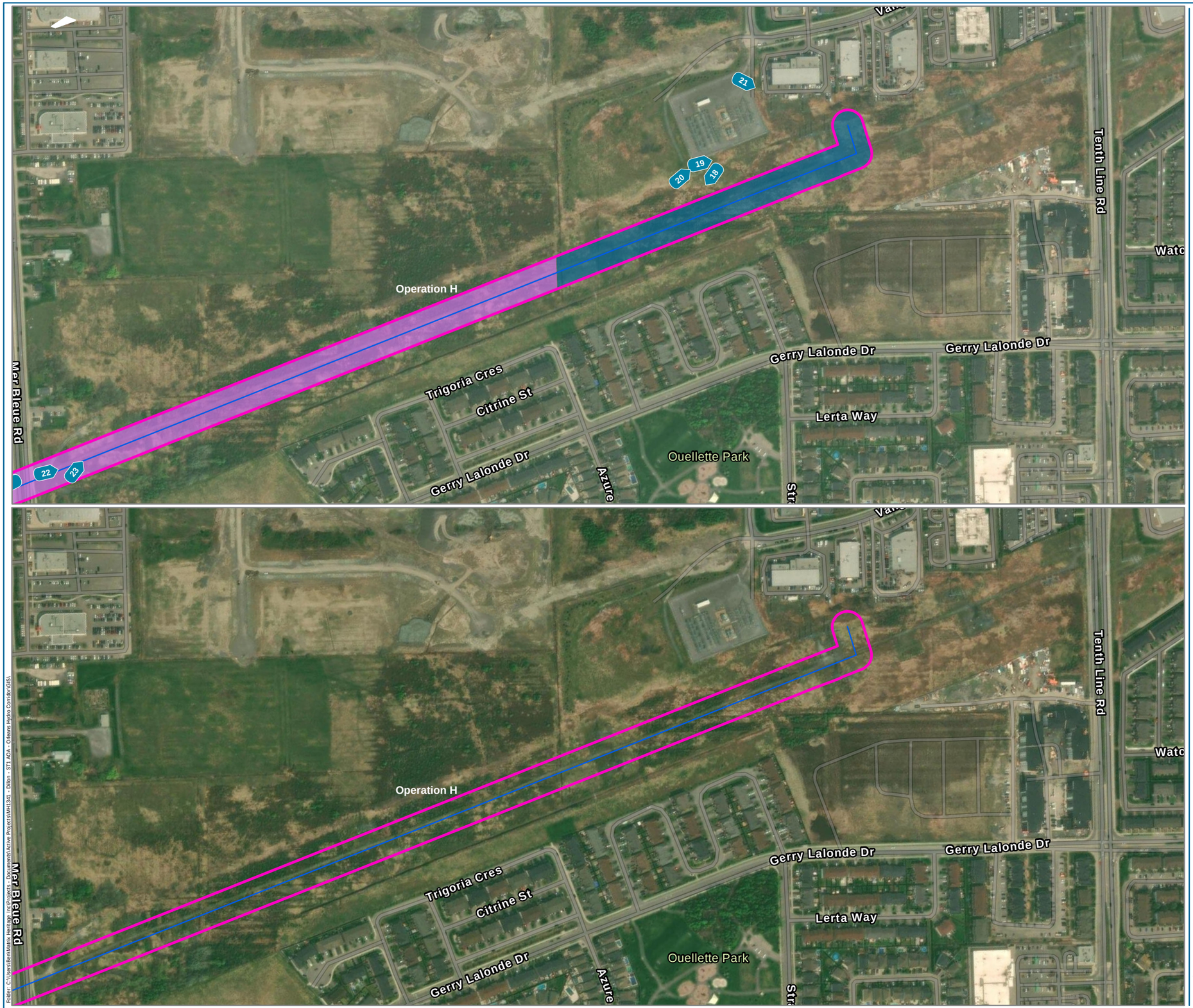
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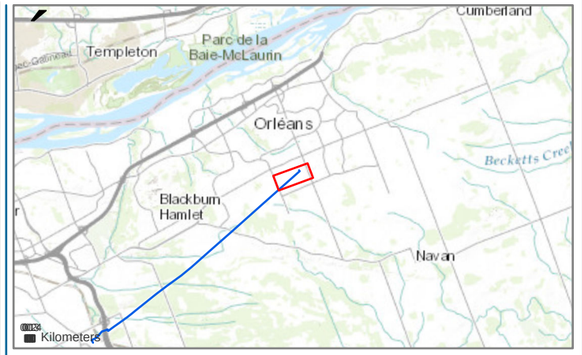
PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE **CONDITIONS AND RECOMMENDATIONS 7**

MAP 10

Folder: C:\Users\BenMatrix Heritage, Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 AOA - Orleans Hydro Corridor\GIS\





LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

STAGE 2 ASSUMED ASSESSMENT METHOD

ARCHAEOLOGICAL POTENTIAL - ASSESSMENT REQUIRED

- SHOVEL TEST (5 M INTERVAL)

NO FURTHER ASSESSMENT REQUIRED

- PREVIOUSLY ASSESSED
- PHOTO LOCATION, DIRECTION, FIGURE NUMBER

Matrix

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Meters

1:5,000

REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, MAXAR

MAPPING OF RECOMMENDATIONS IS APPROXIMATE

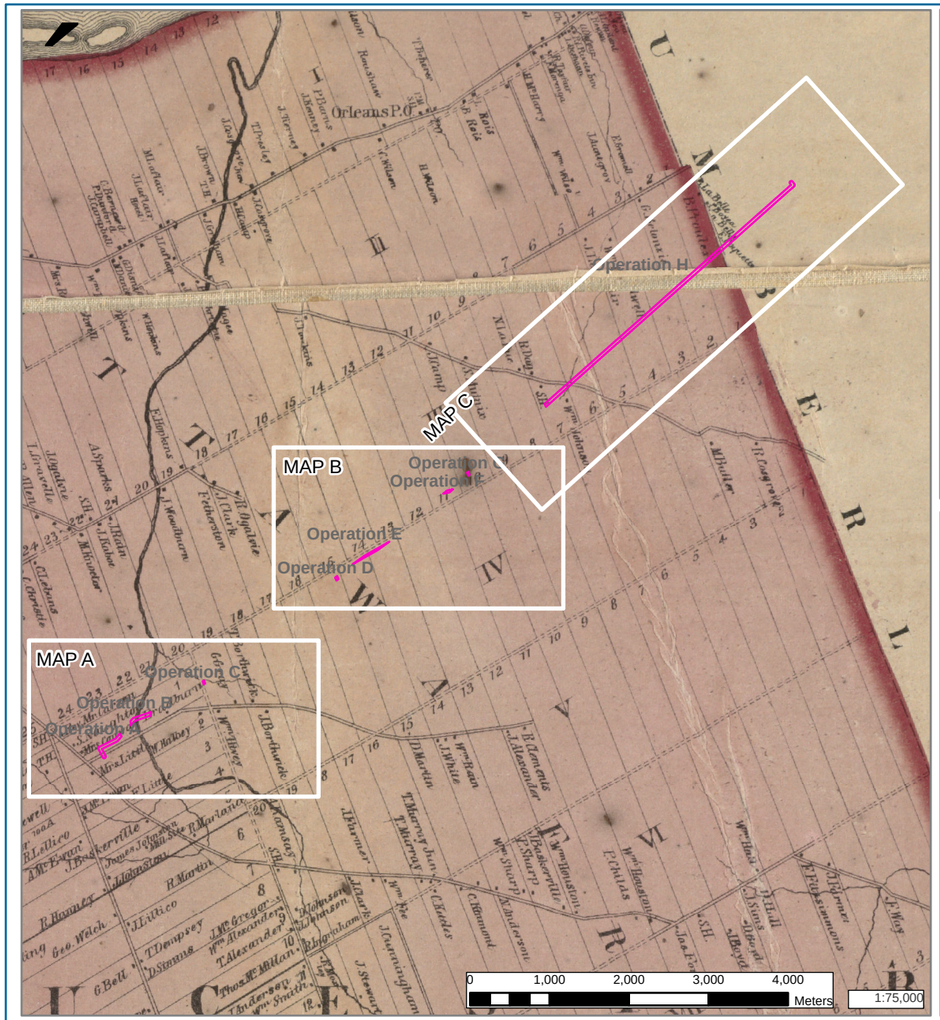
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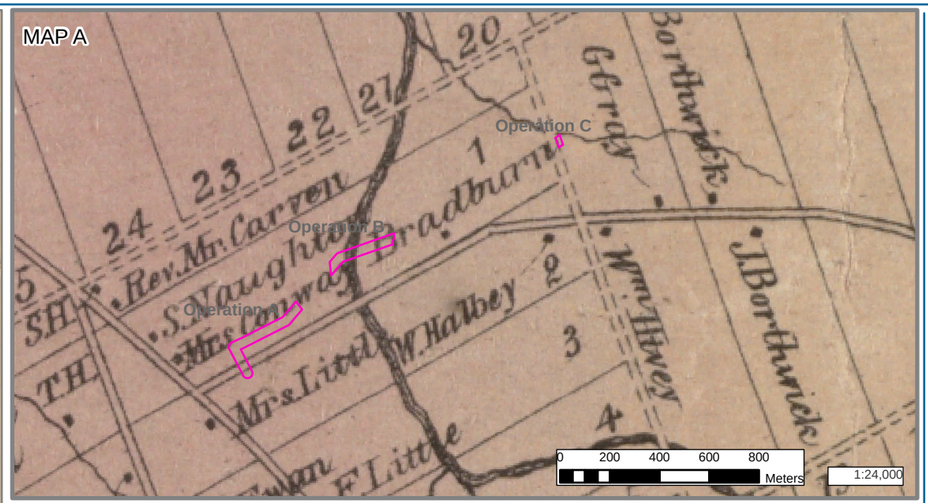
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

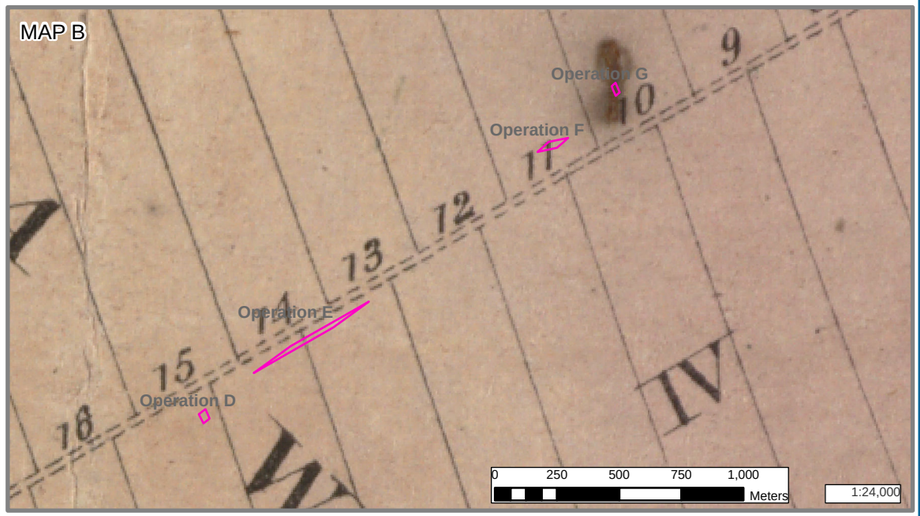
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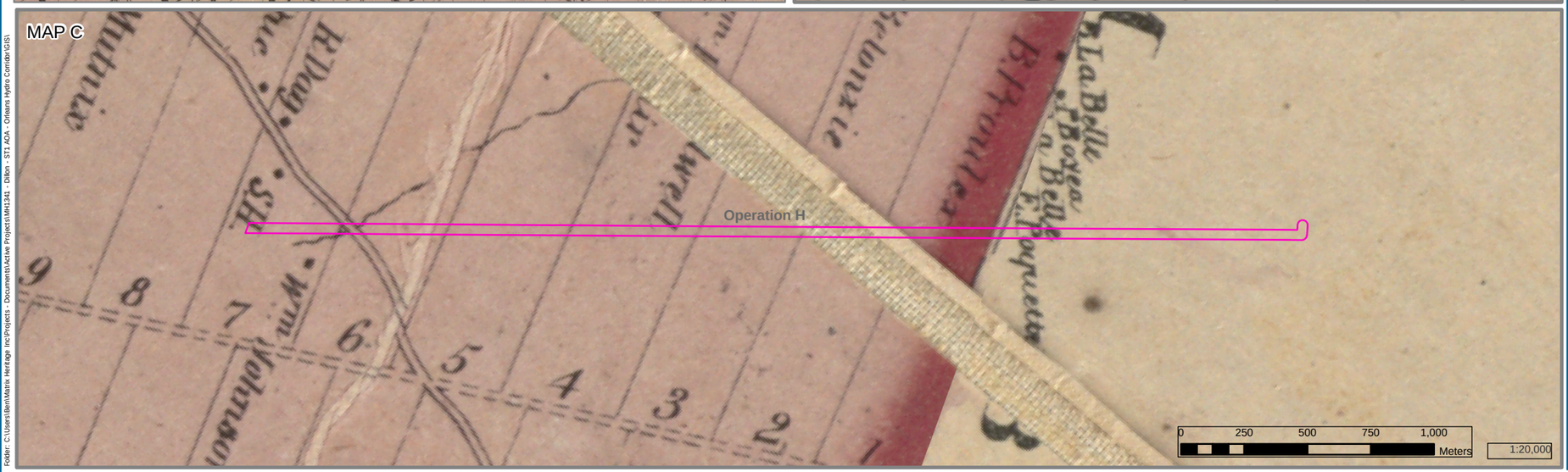
MAP 11

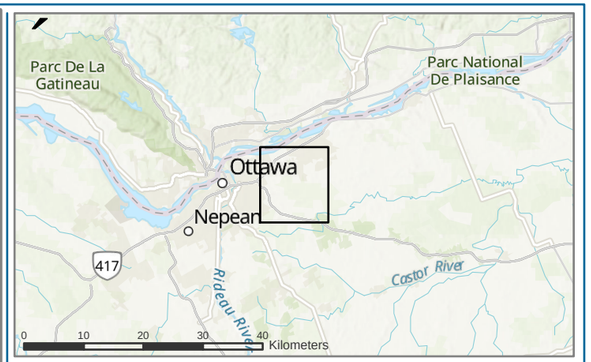
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LEGEND

STUDY AREA

Matrix

REFERENCES:
ESRI, CGIAR, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

MAP OF THE COUNTY OF CARLETON, CANADA WEST : FROM SURVEYS UNDER THE DIRECTION OF H.F. WALLING

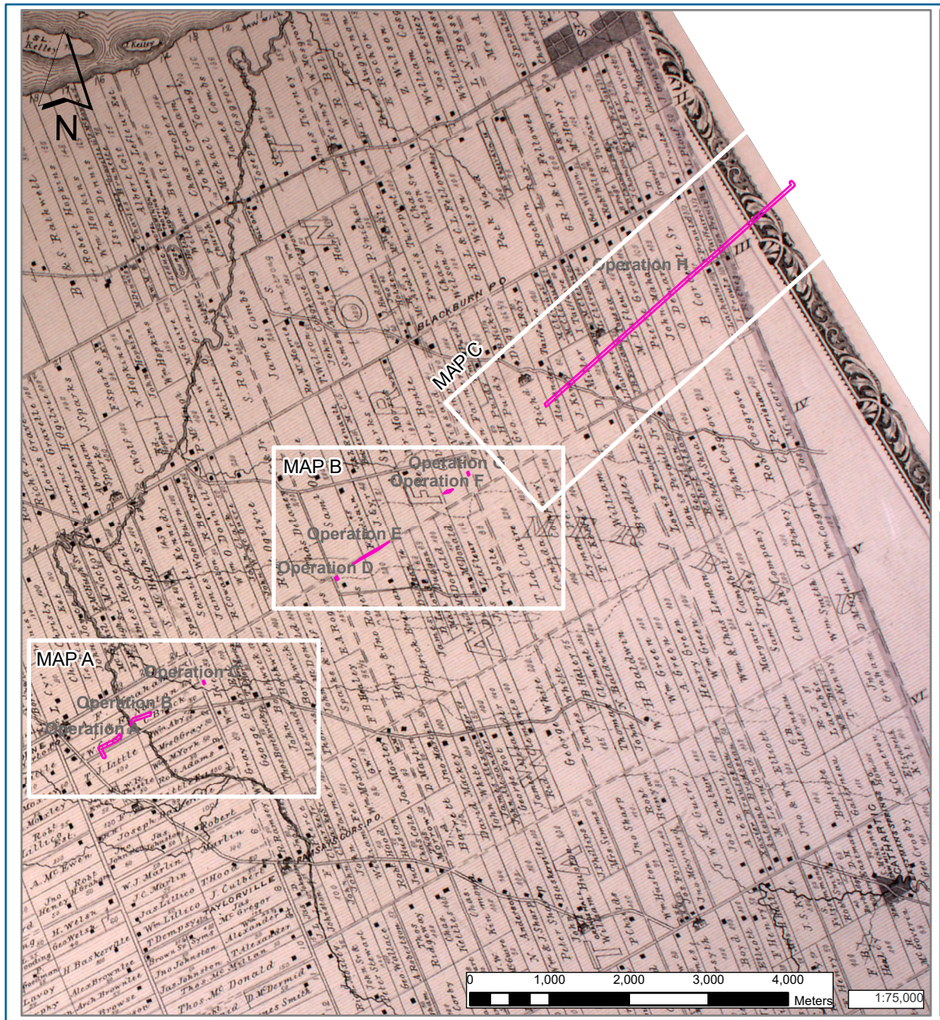
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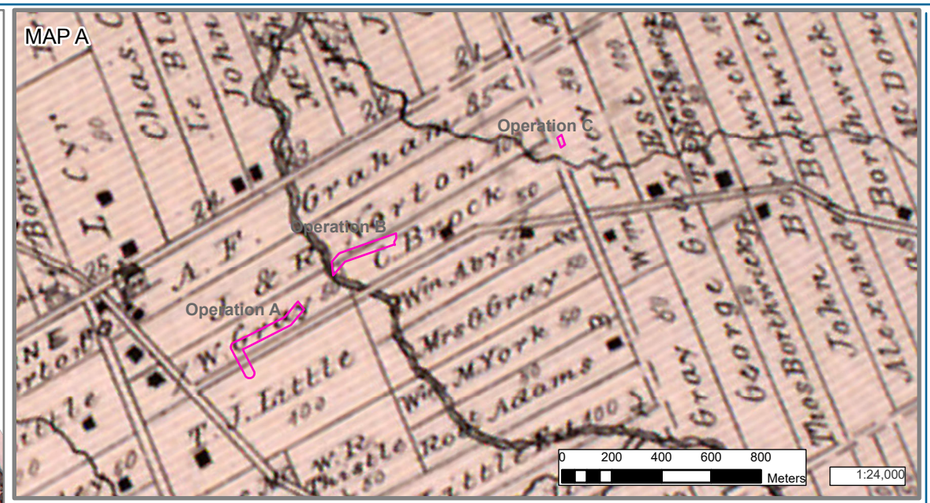
PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

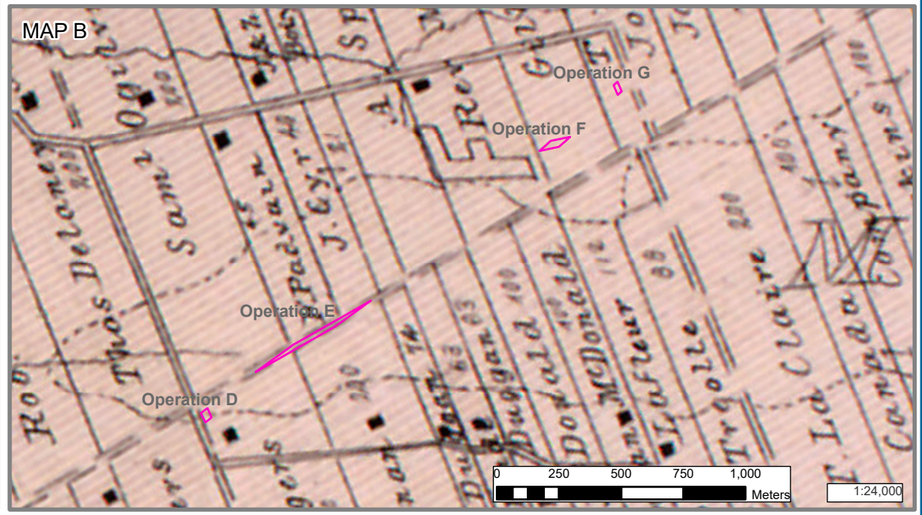
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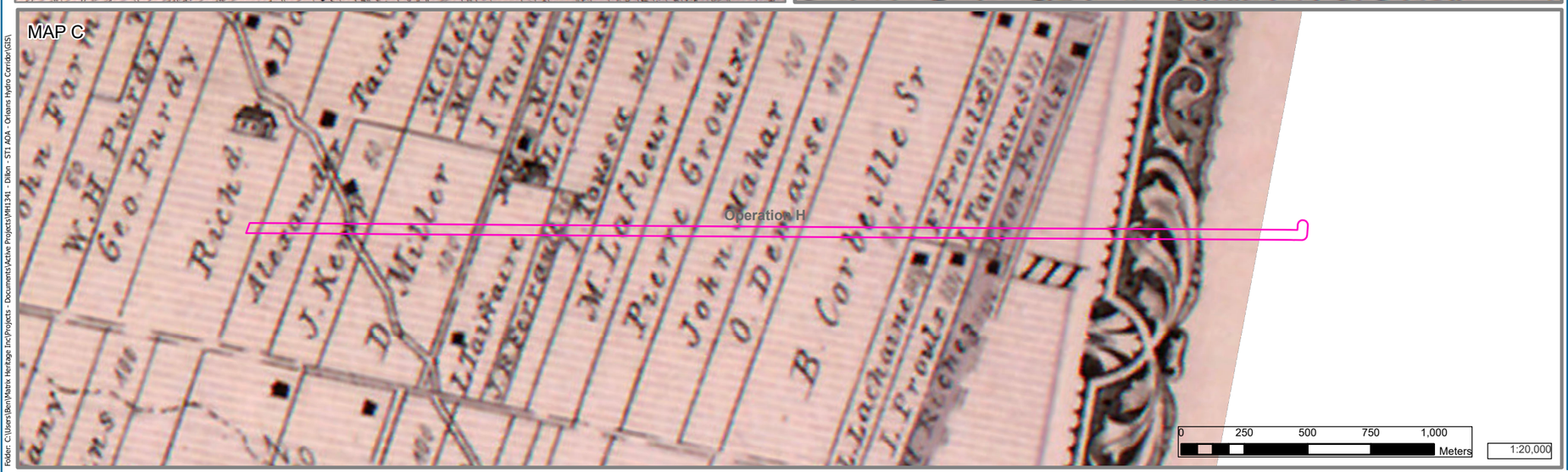
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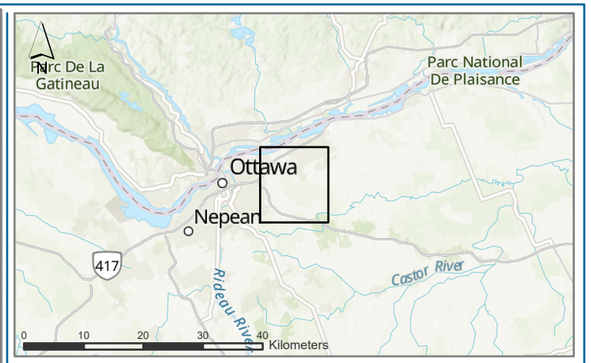
Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 ADA - Orleans Hydro Corridor\GIS\











LEGEND

STUDY AREA

Matrix

REFERENCES:
ESRI, CGIAR, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

ILLUSTRATED HISTORICAL ATLAS OF THE COUNTY OF CARLETON (INCLUDING CITY OF OTTAWA) ONT. BY: H. BELDEN & CO. PUBLICATION DATE: 1879

FILE MH1341-R1

DATE 2025-06-05
CREATED BY: EM
CHECKED BY: BM

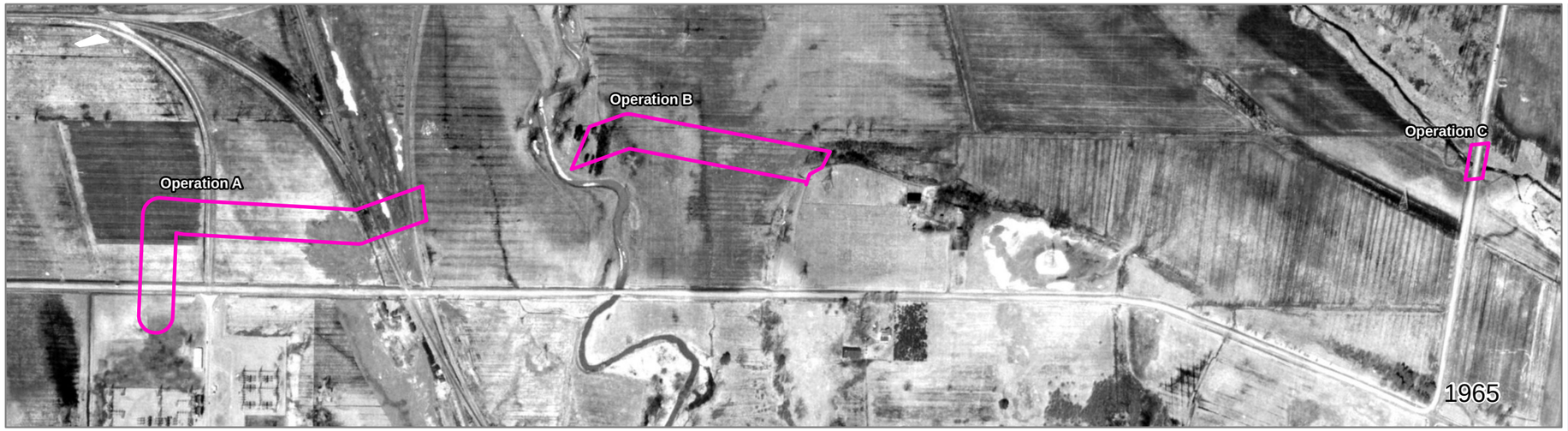
PROJECTION: NAD 1983 UTM Zone 18N

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

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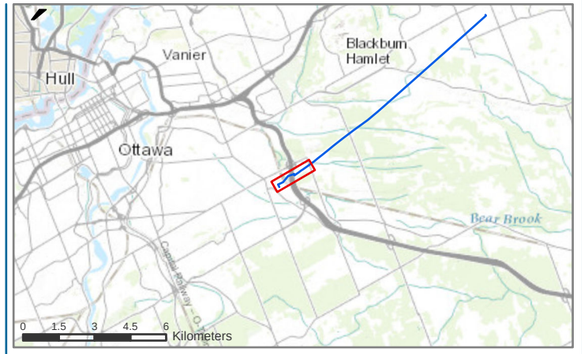
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Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 ADA - Orleans Hydro Corridor\GIS\









LEGEND

STUDY AREA

Matrix

0 75 150 225 300 Meters

1:6,000

REFERENCES:
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1965 - OTTAWA IMAGERY, GEOOTTAWA
1976 - OTTAWA IMAGERY, GEOOTTAWA

FILE MH1341-R1

DATE 2025-06-05

CREATED BY: EM

PROJECTION: NAD 1983 UTM Zone 18N

CHECKED BY: BM

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
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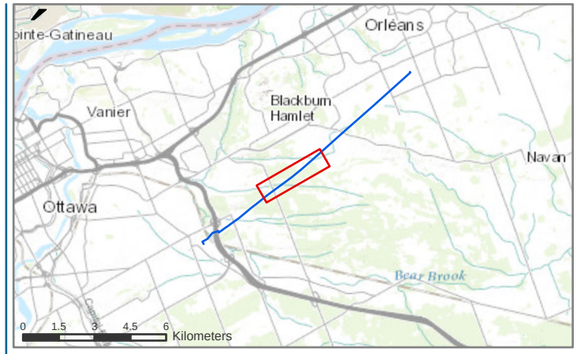
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STUDY AREA

0 130 260 390 520 Meters

1:10,000

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1976 - OTTAWA IMAGERY, GEOOTTAWA

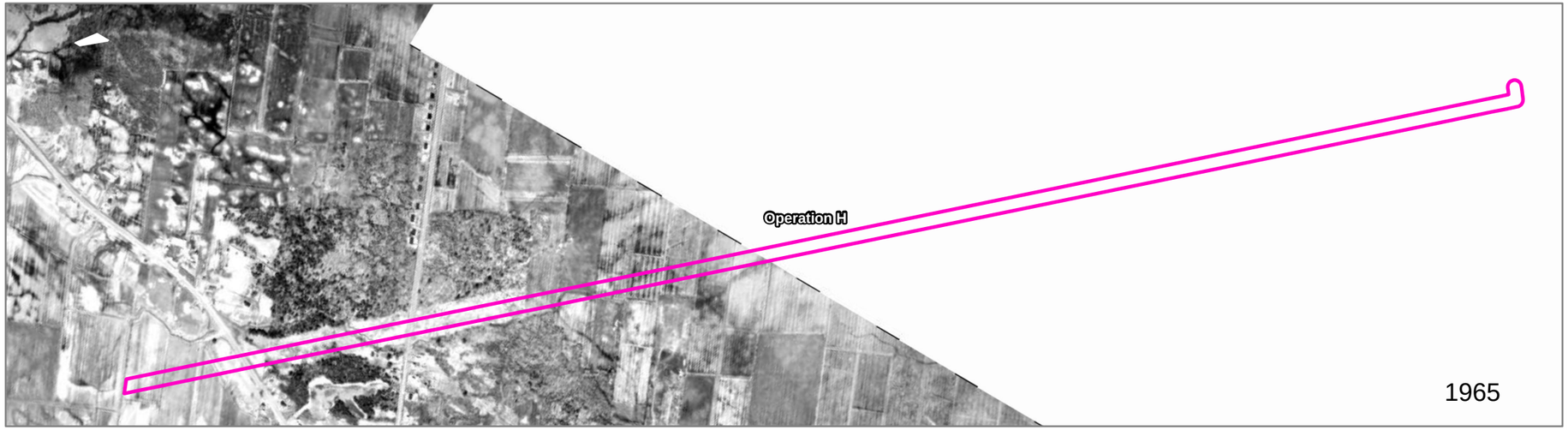
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DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
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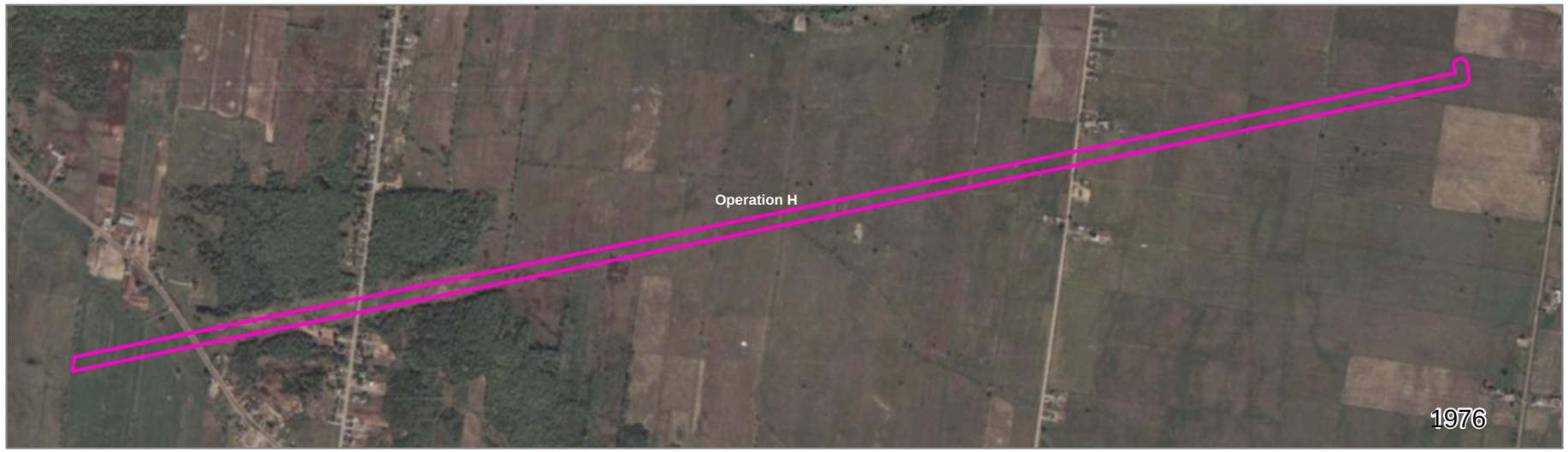
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
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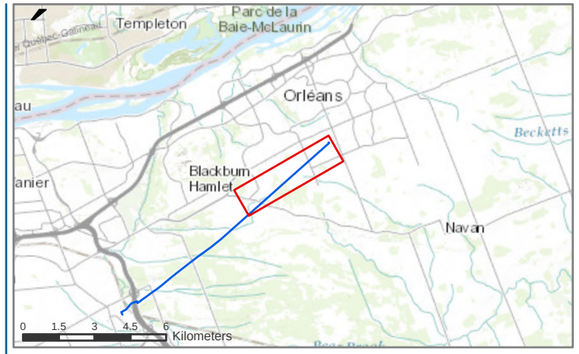
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Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 ACA - Orleans Hydro Corridor\GIS\









LEGEND

STUDY AREA

Matrix

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1:15,000

REFERENCES:
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1965 - OTTAWA IMAGERY, GEOOTTAWA
1976 - OTTAWA IMAGERY, GEOOTTAWA

FILE MH1341-R1

DATE 2025-06-05

CREATED BY: EM

PROJECTION: NAD 1983 UTM Zone 18N

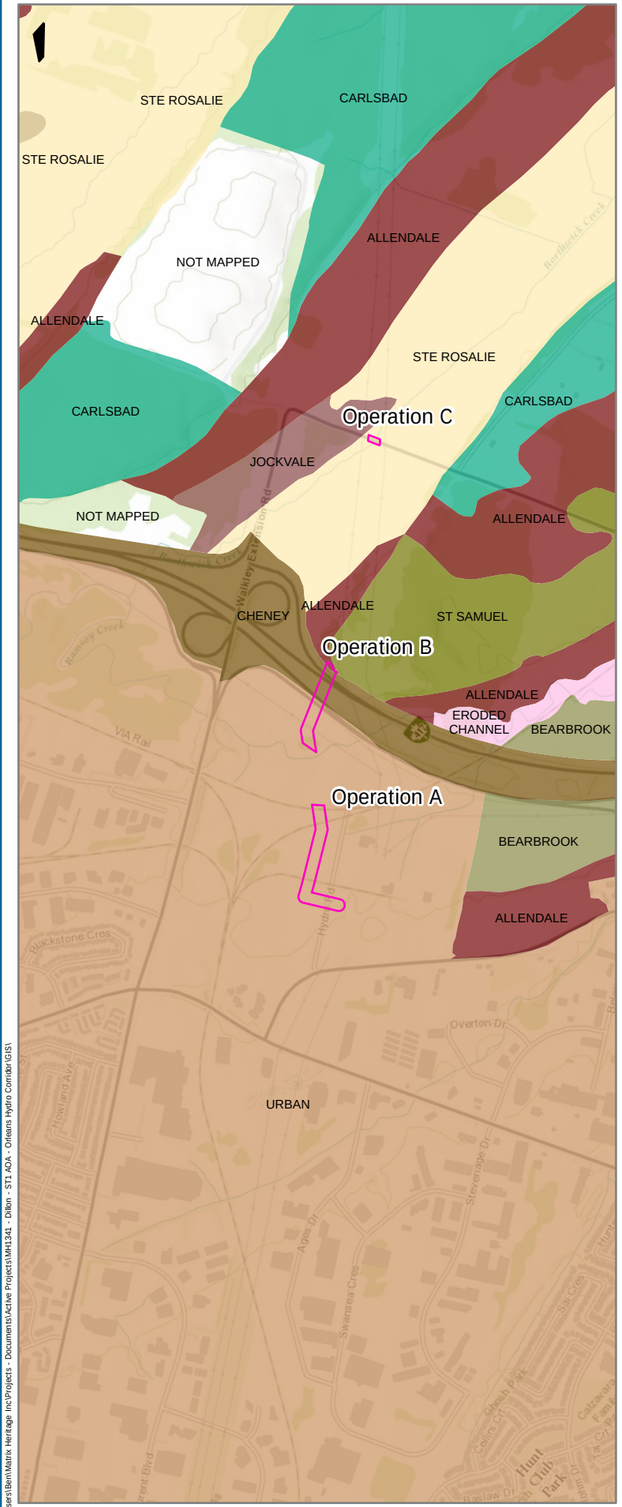
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PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

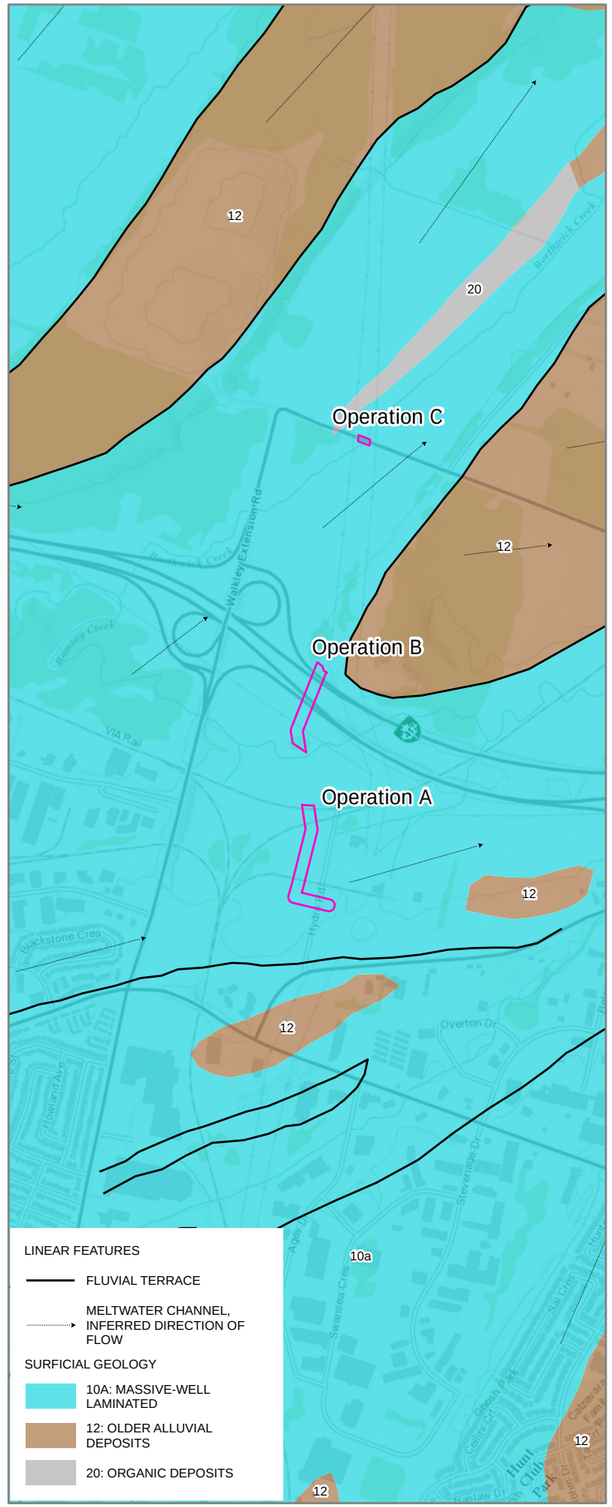
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MAP
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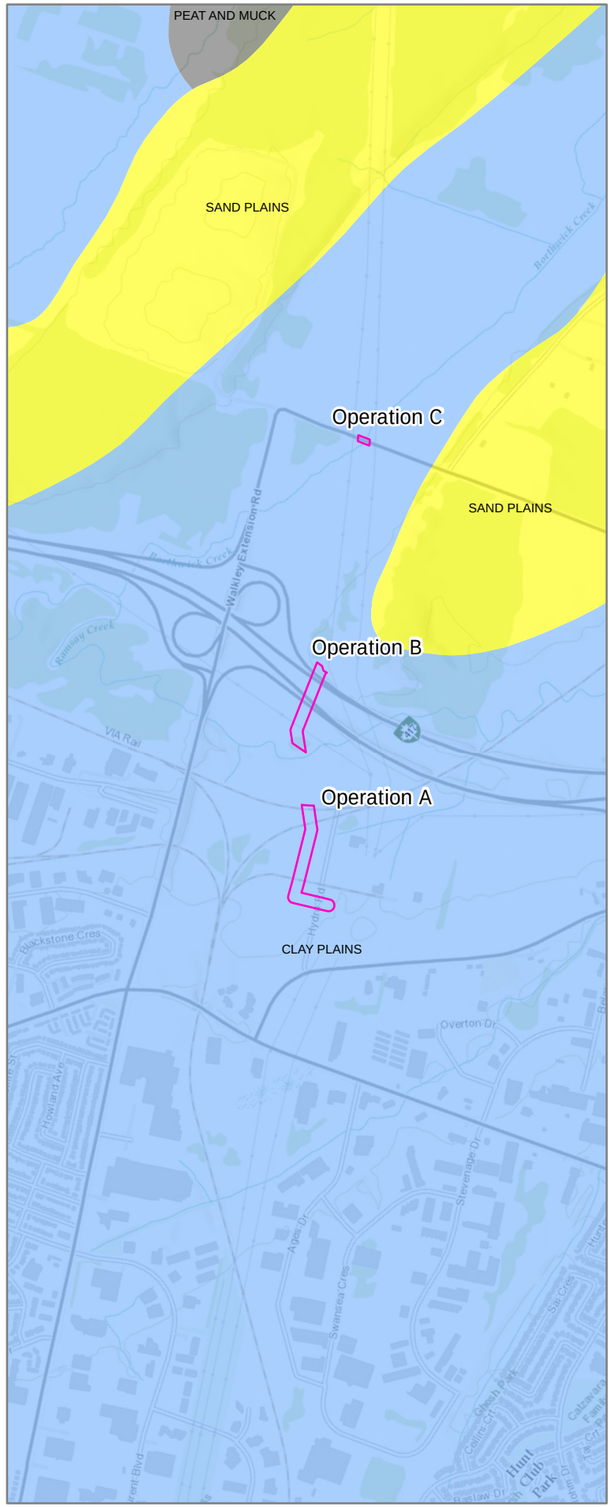
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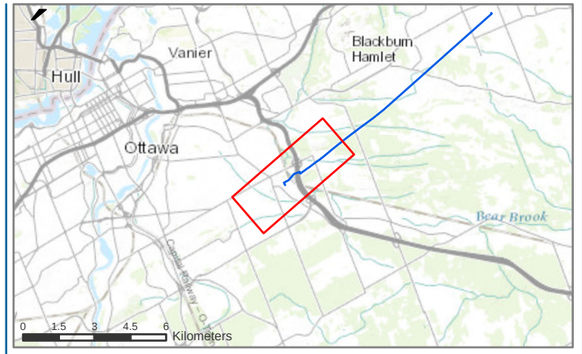
SOILS



SURFICIAL GEOLOGY



PHYSIOGRAPHY



LEGEND

STUDY AREA

Matrix

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REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, CITY OF OTTAWA, VILLE DE GATINEAU, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCAN, HTTPS://WWW.ONTARIO.CA/PAGE/OPEN-GOVERNMENT-LICENCE-ONTARIO
SURFICIAL GEOLOGY OF SOUTHERN ONTARIO 2003
CHAPMAN AND PUTNAM 2007 PHYSIOGRAPHY OF SOUTHERN ONTARIO

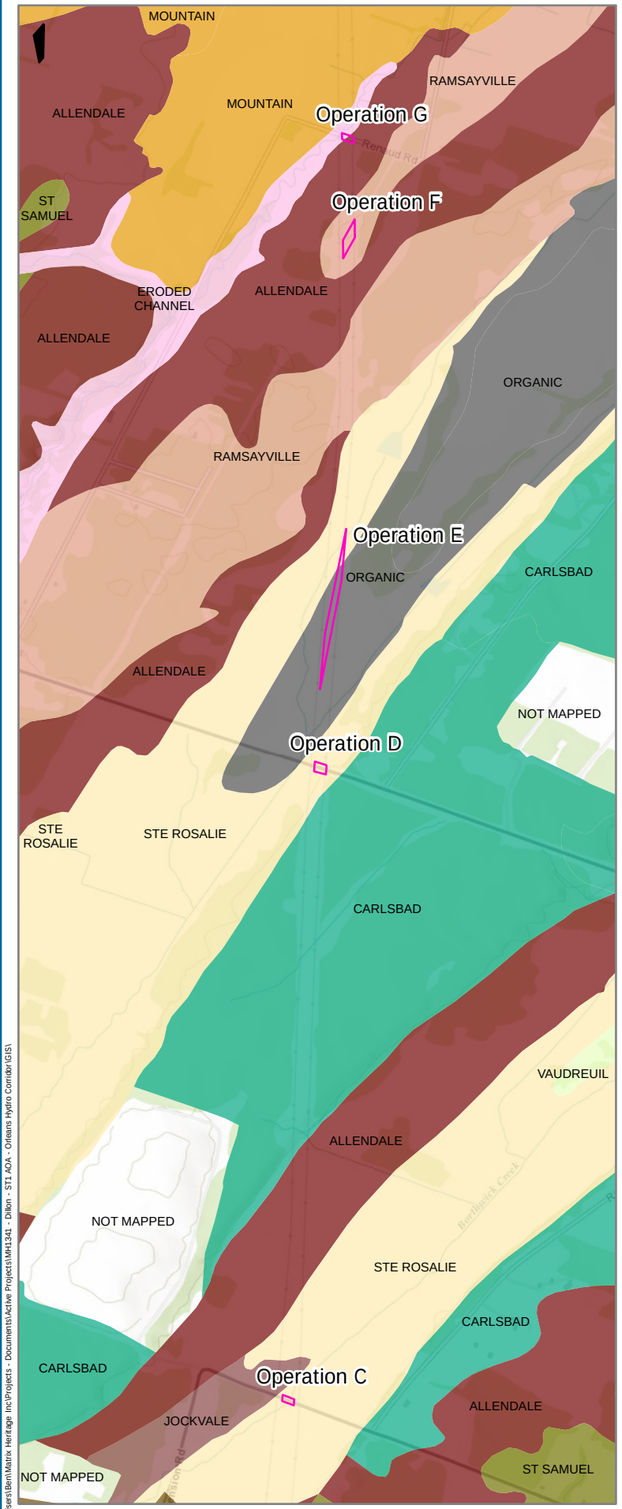
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DATE 2025-06-05
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PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

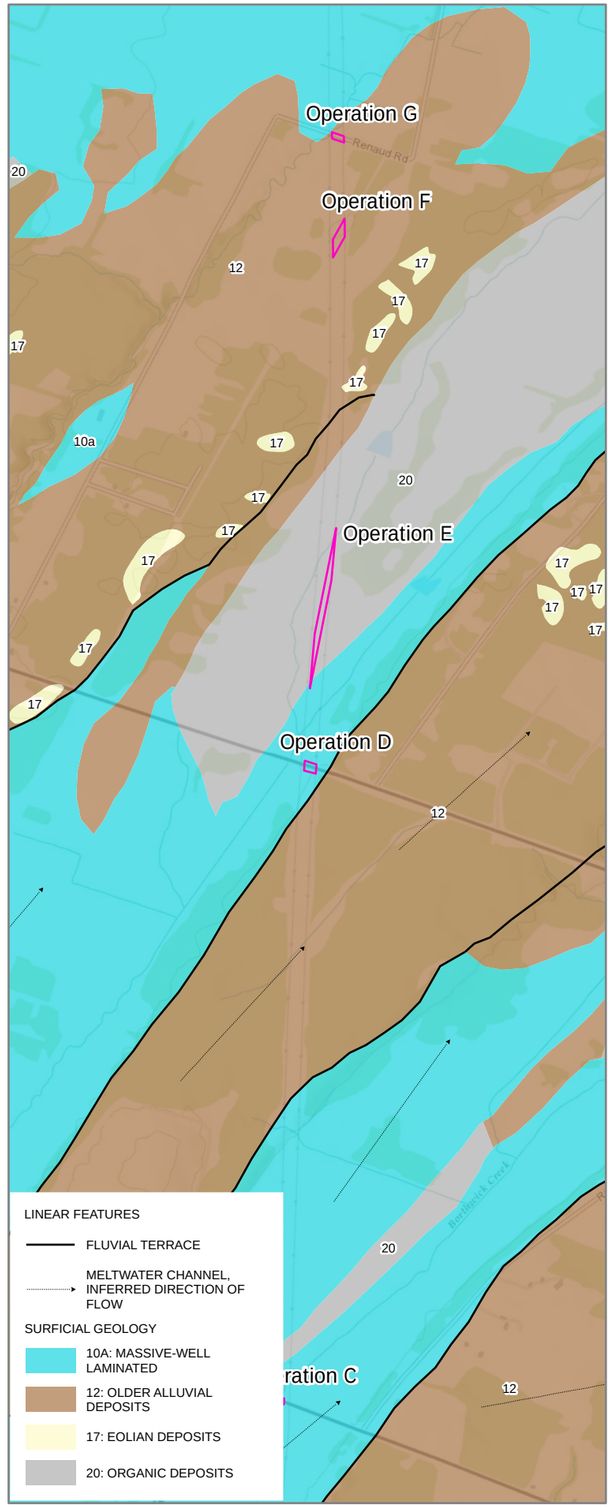
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MAP
17

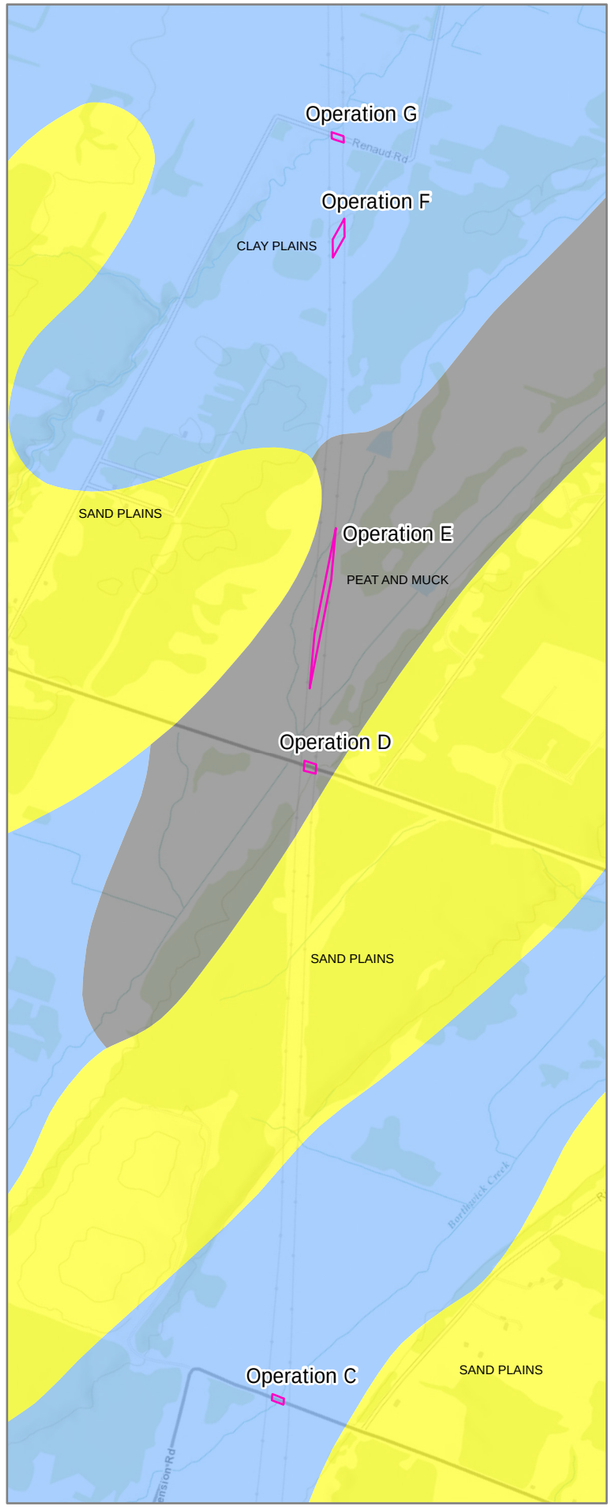
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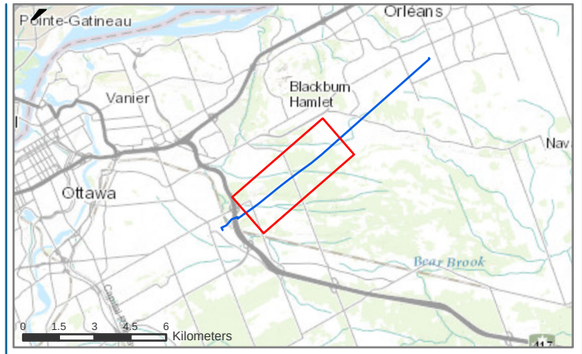
SOILS



SURFICIAL GEOLOGY



PHYSIOGRAPHY



LEGEND

STUDY AREA

Matrix

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REFERENCES:
CITY OF OTTAWA, VILLE DE GATINEAU, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, CITY OF OTTAWA, VILLE DE GATINEAU, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCAN, HTTPS://WWW.ONTARIO.CA/PAGE/OPEN-GOVERNMENT-LICENCE-ONTARIO
SURFICIAL GEOLOGY OF SOUTHERN ONTARIO 2003
CHAPMAN AND PUTNAM 2007 PHYSIOGRAPHY OF SOUTHERN ONTARIO

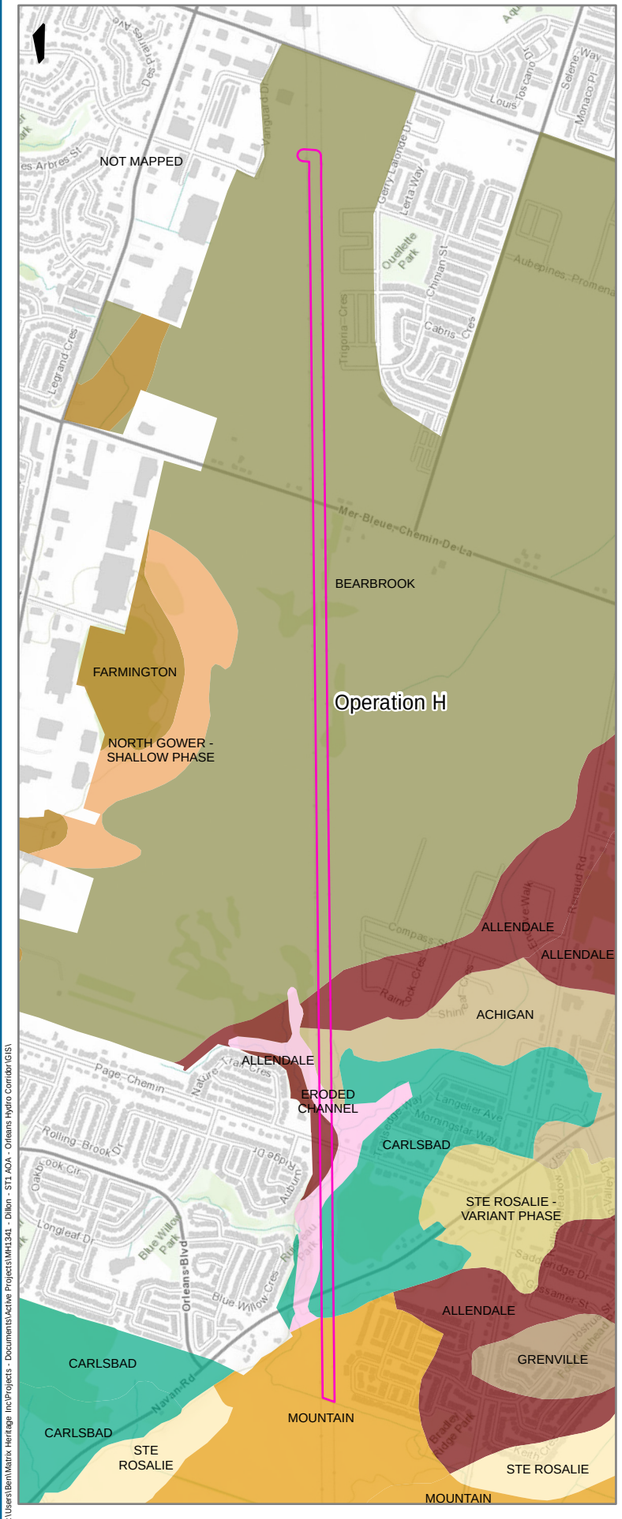
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DATE 2025-06-05
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

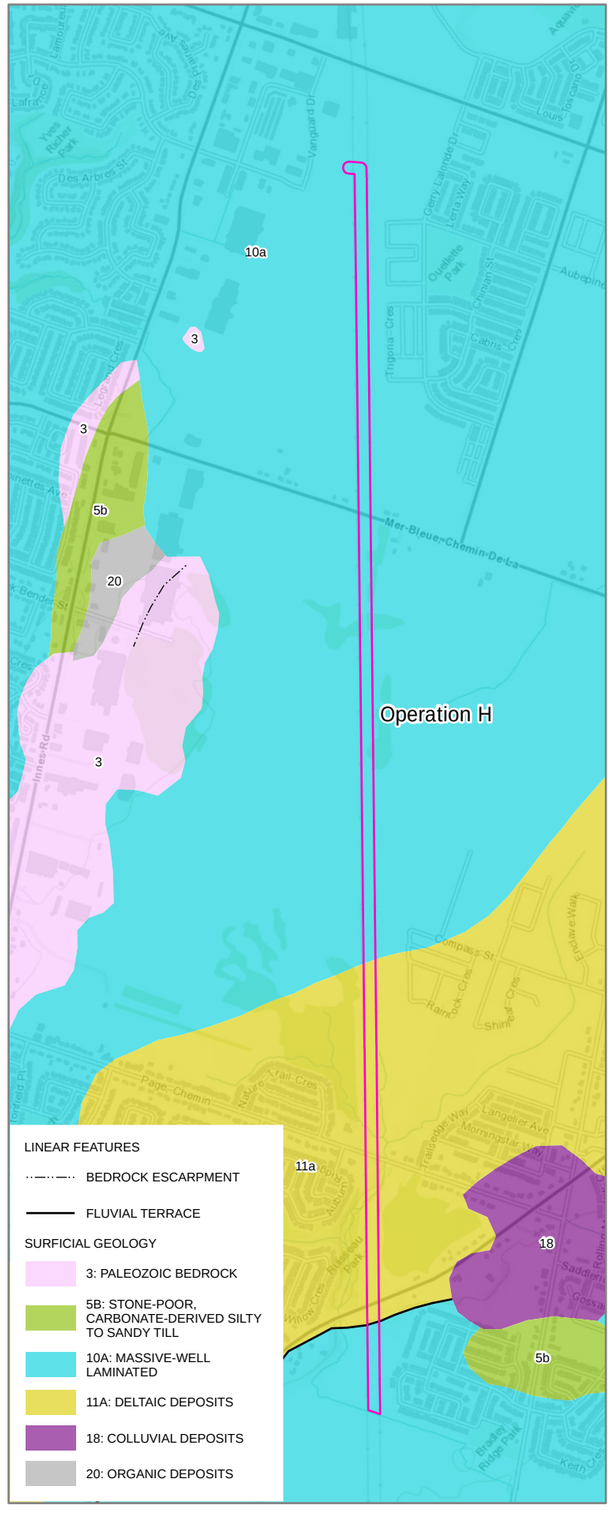
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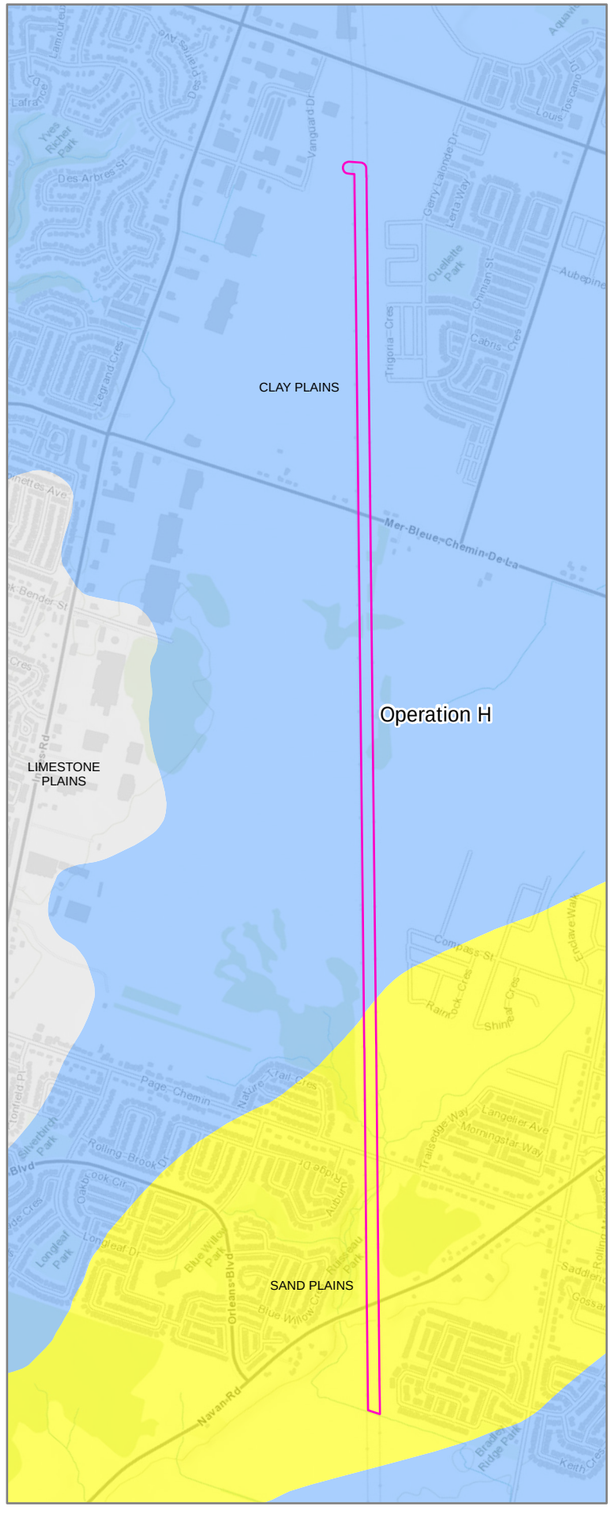
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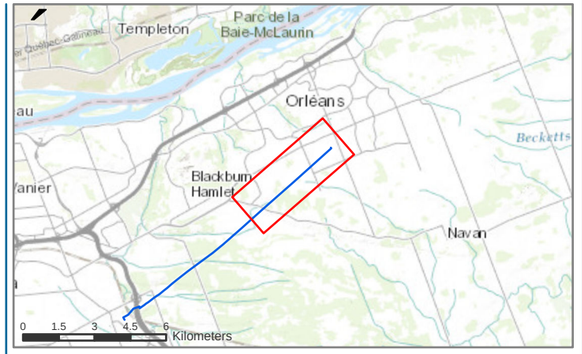
SOILS



SURFICIAL GEOLOGY



PHYSIOGRAPHY



LEGEND

STUDY AREA

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REFERENCES:
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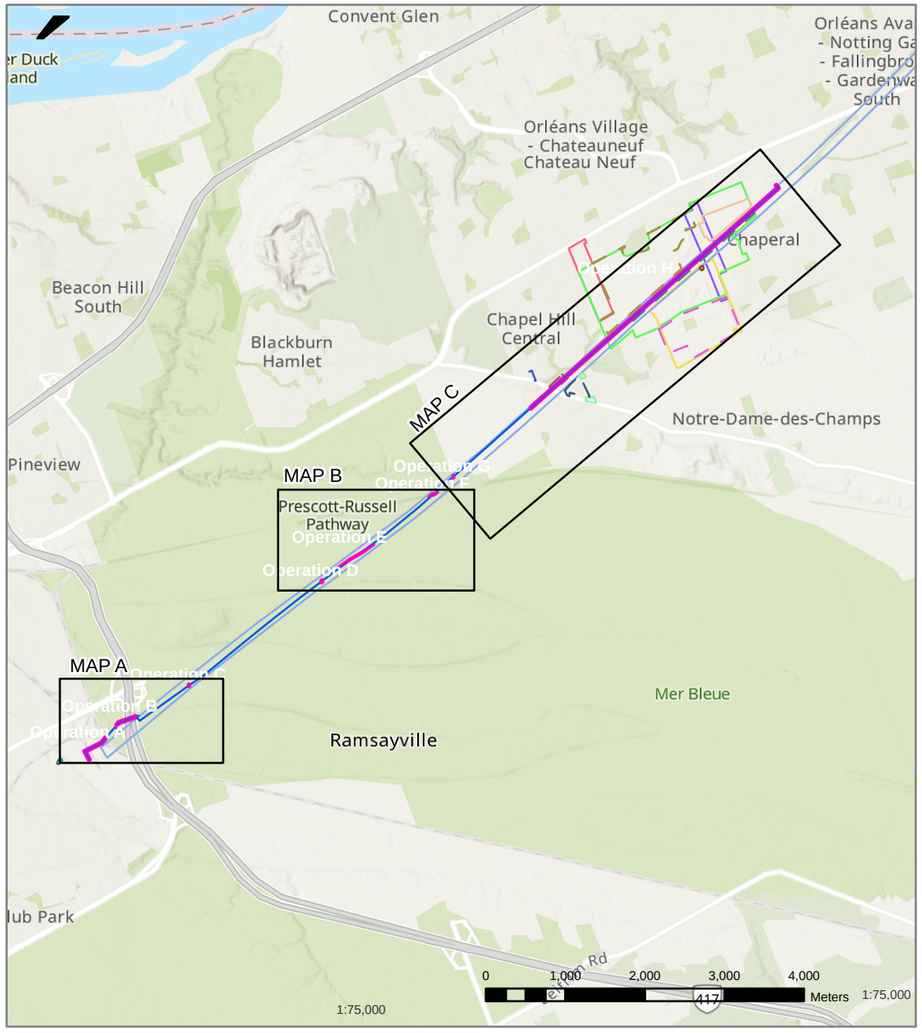
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DATE 2025-06-05
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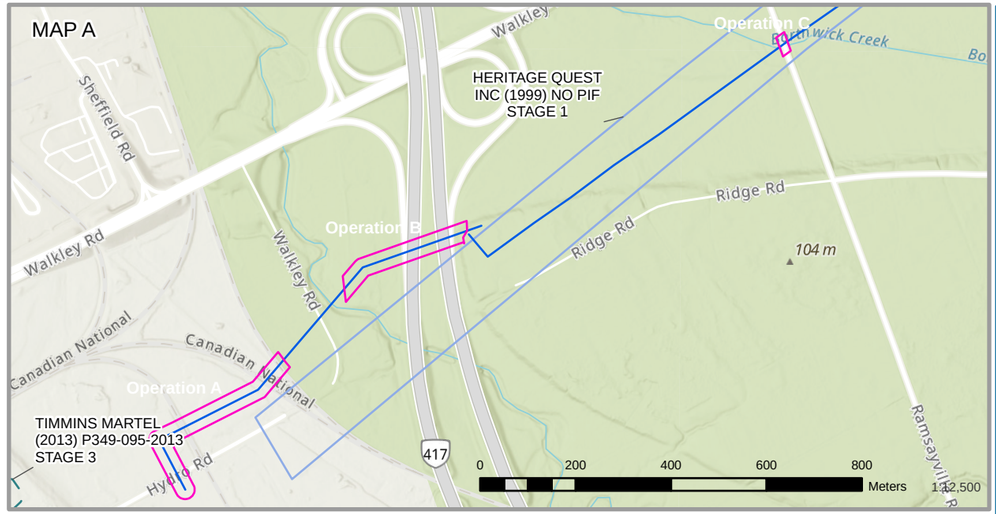
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STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

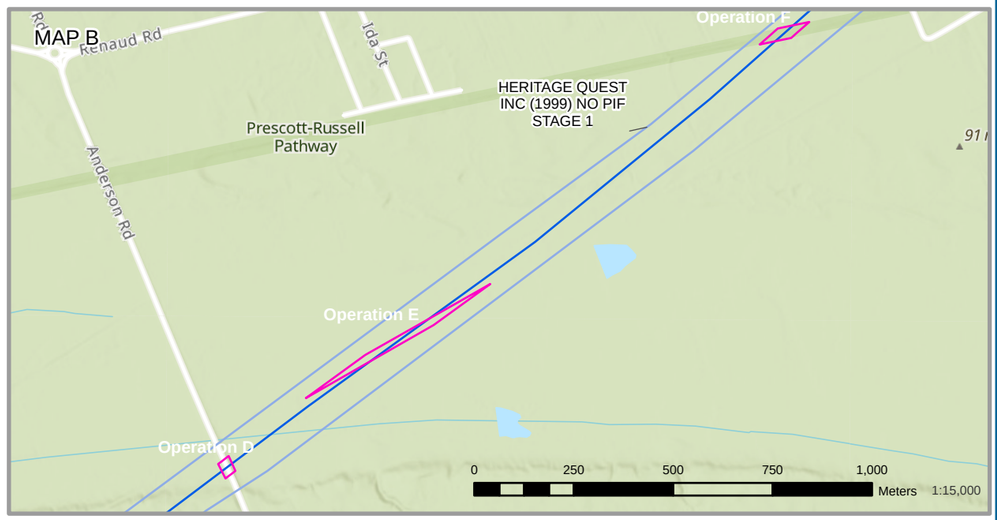
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SOILS AND GEOLOGY 3

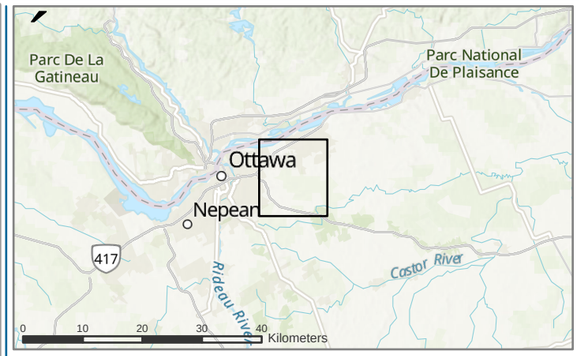
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Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 ADA - Orleans Hydro Corridor\GIS\









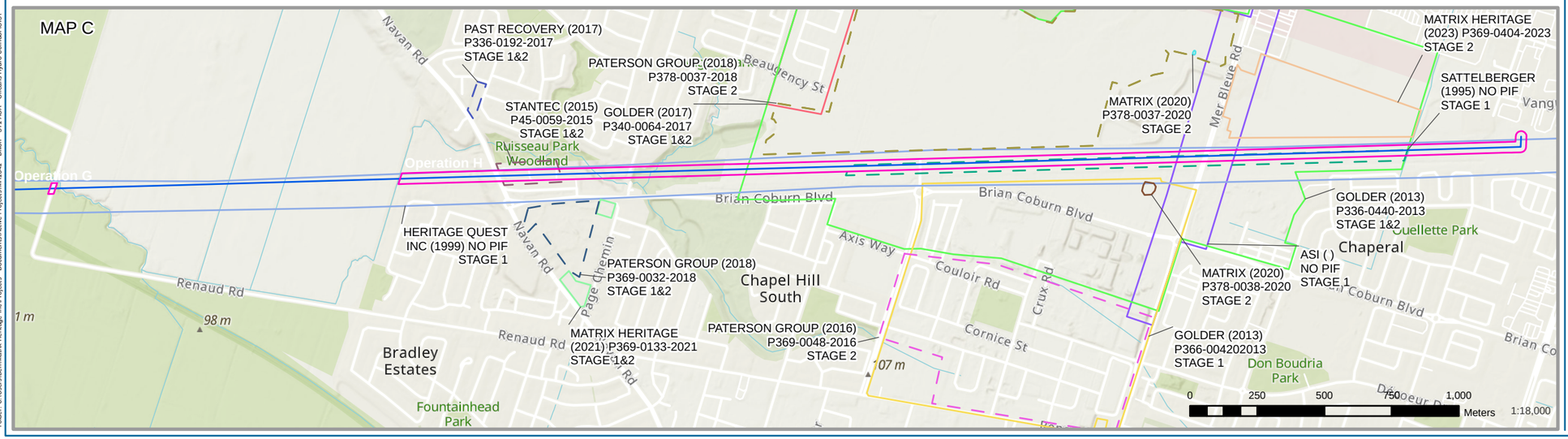
LEGEND

- STUDY AREA
- ORLEANS AREA REINFORCEMENT CORRIDOR CENTRELINE

Matrix

PREVIOUS ASSESSMENTS

- ASI, MER BLEUE ROAD WIDENING, NO PIF (1)
- GOLDER, 3604-3646 INNES ROAD, P340-0064-2017 (1)
- GOLDER, EAST URBAN COMMUNITY CENTRE, P336-0440-2013 (1)
- GOLDER, TRAILS EDGE (EDEN PARK) SUBDIVISION, P366-004202013 (1)
- HERITAGE QUEST INC, HYDRO TRANSMISSION LINE, NO PIF (1)
- MATRIX HERITAGE, PROULX, P378-0038-2020 (1)
- MATRIX HERITAGE, TAILLEFER, P378-0037-2020 (1)
- MATRIX HERITAGE, 2127 AND 2159 MER BLEUE, P369-0404-2023 (1)
- MATRIX HERITAGE, 2983, 3053, AND 3079 NAVAN ROAD, P369-0133-2021 (1)
- MATRIX HERITAGE, TRIM ROAD, P369-0448-2023 AND P369-0487-2024 (0)
- PAST RECOVERY, 2871 NAVAN RD SUBDIVISION, P336-0192-2017 (1)
- PATERSON GROUP, NAVAN-BRIAN COBURN COMMERCIAL DEVELOPMENT, P369-0032-2018 (1)
- PATERSON GROUP, TRAILS EDGE (EDEN PARK) SUBDIVISION, P369-0048-2016 (1)
- PATERSON GROUP, TRAILS EDGE PHASE 5 - NORTH RESIDENTIAL DEVELOPMENT, P378-0037-2018 (2)
- SATTELBERGER, WATER FEEDERMAIN, NO PIF (1)
- STANTEC, PARK AND RIDE, P45-0059-2015 (1)
- TIMMINS MARTEL, WILLIAM E. HAY CENTRE, P349-095-2013 (1)



REFERENCES:
ESRI, NASA, NGA, USGS, FEMA, ESRI, CGIAR, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

FILE MH1341-R1
DATE 2025-06-05
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY:NK

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT HYDRO ONE ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
PREVIOUS ASSESSMENTS

MAP
20

Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1341 - Dillon - ST1 AOA - Orleans Hydro Corridor\GIS\

Appendix A: Photographic Catalogue

Photo Number	Description	Direction	Photographer	Date
MH1341-D001	East end transformer station	NE	A. Jackson	08-May-25
MH1341-D002	Conditions near the east end transformer station	S	A. Jackson	08-May-25
MH1341-D003	Conditions near the east end transformer station	S	A. Jackson	08-May-25
MH1341-D004	South side of transformer station	NE	A. Jackson	08-May-25
MH1341-D005	Conditions near the east end transformer station	S	A. Jackson	08-May-25
MH1341-D006	Conditions near the east end transformer station	E	A. Jackson	08-May-25
MH1341-D007	Conditions near the east end transformer station	S	A. Jackson	08-May-25
MH1341-D008	South side of transformer station	NE	A. Jackson	08-May-25
MH1341-D009	West side of east transformer station	N	A. Jackson	08-May-25
MH1341-D010	Conditions near the east end transformer station	SW	A. Jackson	08-May-25
MH1341-D011	View to the southeast of the east end transformer station	SE	A. Jackson	08-May-25
MH1341-D012	View to the southeast of the east end transformer station	SE	A. Jackson	08-May-25
MH1341-D013	Along the eastern side of the eastern transformer station	S	A. Jackson	08-May-25
MH1341-D014	Conditions in previously assessed area off Mer Bleue Rd	NE	A. Jackson	08-May-25
MH1341-D015	Conditions in previously assessed area off Mer Bleue Rd	E	A. Jackson	08-May-25
MH1341-D016	Conditions in previously assessed area off Mer Bleue Rd	N	A. Jackson	08-May-25
MH1341-D017	Conditions in previously assessed area off Mer Bleue Rd	NE	A. Jackson	08-May-25
MH1341-D018	Conditions near Mer Bleue	N	A. Jackson	08-May-25
MH1341-D019	The west side from Mer Bleue	SW	A. Jackson	08-May-25
MH1341-D020	The west side from Mer Bleue	W	A. Jackson	08-May-25
MH1341-D021	The west side from Mer Bleue	S	A. Jackson	08-May-25
MH1341-D022	View from the east side of the previously assessed park and ride	NE	A. Jackson	08-May-25
MH1341-D023	View from the east side of the previously assessed park and ride	NE	A. Jackson	08-May-25
MH1341-D024	East side of Park and Ride	NE	A. Jackson	08-May-25
MH1341-D025	Conditions east of the park and ride	N	A. Jackson	08-May-25
MH1341-D026	Conditions east of the park and ride	N	A. Jackson	08-May-25
MH1341-D027	Conditions east of the park and ride	N	A. Jackson	08-May-25
MH1341-D028	Pathway at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D029	Water management pond at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D030	Bell locates at the Water management pond at Page Rd and Brian Coburn	SW	A. Jackson	08-May-25
MH1341-D031	Bell locates at the Water management pond at Page Rd and Brian Coburn	SW	A. Jackson	08-May-25
MH1341-D032	Pathway at Page Rd and Brian Coburn	NW	A. Jackson	08-May-25
MH1341-D033	Water management pond at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D034	Locates, Bell and gas at the management pond	W	A. Jackson	08-May-25
MH1341-D035	Edge of management pond at Page Rd.	SW	A. Jackson	08-May-25
MH1341-D036	Locates, Bell and gas at the management pond	N	A. Jackson	08-May-25
MH1341-D037	Water management pond at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D038	Water management pond at Page Rd and Brian Coburn	E	A. Jackson	08-May-25
MH1341-D039	Water management pond at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D040	Water management pond at Page Rd and Brian Coburn	NE	A. Jackson	08-May-25
MH1341-D041	Water management pond at Page Rd and Brian Coburn	N	A. Jackson	08-May-25
MH1341-D042	Water management pond at Page Rd and Brian Coburn	N	A. Jackson	08-May-25
MH1341-D043	Path into site east of Page Rd	N	A. Jackson	08-May-25
MH1341-D044	Storm water utility	NE	A. Jackson	08-May-25
MH1341-D045	Conditions east of Page Rd	NW	A. Jackson	08-May-25
MH1341-D046	Conditions east of Page Rd	NE	A. Jackson	08-May-25
MH1341-D047	Conditions east of Page Rd	NE	A. Jackson	08-May-25
MH1341-D048	Showing built up base of hydro tower	W	A. Jackson	08-May-25
MH1341-D049	Chapel Hill Park and Ride	SW	A. Jackson	08-May-25
MH1341-D050	East side of Chapel Hill Park and Ride	SW	A. Jackson	08-May-25
MH1341-D051	Chapel Hill Park and Ride	SW	A. Jackson	08-May-25
MH1341-D052	Previously assessed park and ride area	W	A. Jackson	08-May-25
MH1341-D053	View of the study area from the west side of the park and ride	SW	A. Jackson	08-May-25
MH1341-D054	Conditions west of the park and ride	W	A. Jackson	08-May-25
MH1341-D055	Conditions west of the park and ride	SW	A. Jackson	08-May-25
MH1341-D056	Conditions west of the park and ride	SW	A. Jackson	08-May-25
MH1341-D057	From the west side of the park and ride	NE	A. Jackson	08-May-25
MH1341-D058	From the west side of the park and ride	NE	A. Jackson	08-May-25
MH1341-D059	View of agricultural field from Renaud Rd	NW	A. Jackson	08-May-25
MH1341-D060	View of agricultural field from Renaud Rd	NW	A. Jackson	08-May-25
MH1341-D061	View of agricultural field from Renaud Rd	W	A. Jackson	08-May-25
MH1341-D062	View of agricultural field from Renaud Rd	W	A. Jackson	08-May-25
MH1341-D063	View of agricultural field from Renaud Rd	N	A. Jackson	08-May-25

Photo Number	Description	Direction	Photographer	Date
MH1341-D064	View of agricultural field from Renaud Rd	N	A. Jackson	08-May-25
MH1341-D065	View of agricultural field from Renaud Rd	N	A. Jackson	08-May-25
MH1341-D066	Agricultural field from Renaud Rd.	E	A. Jackson	08-May-25
MH1341-D067	Entrance to field off Renaud Rd.	S	A. Jackson	08-May-25
MH1341-D068	Entrance to field off Renaud Rd.	E	A. Jackson	08-May-25
MH1341-D069	Agricultural field under the hydro line	NE	A. Jackson	08-May-25
MH1341-D070	Small creek under Renaud Rd	S	A. Jackson	08-May-25
MH1341-D071	Small creek under Renaud Rd	S	A. Jackson	08-May-25
MH1341-D072	Agricultural field under the hydro line	NE	A. Jackson	08-May-25
MH1341-D073	Recreational trail under hydro line	W	A. Jackson	08-May-25
MH1341-D074	From recreational trail under hydro line	SW	A. Jackson	08-May-25
MH1341-D075	From recreational trail under hydro line	NW	A. Jackson	08-May-25
MH1341-D076	From recreational trail under hydro line	N	A. Jackson	08-May-25
MH1341-D077	Conditions along recreational trail, outside of study area	NE	A. Jackson	08-May-25
MH1341-D078	Creek from Renaud Rd	W	A. Jackson	08-May-25
MH1341-D079	Conditions from Renaud Rd	SW	A. Jackson	08-May-25
MH1341-D080	Creek from Renaud Rd	W	A. Jackson	08-May-25
MH1341-D081	Conditions from Renaud Rd	SW	A. Jackson	08-May-25
MH1341-D082	Conditions from Renaud Rd	NE	A. Jackson	08-May-25
MH1341-D083	Conditions from Anderson Rd	SW	A. Jackson	08-May-25
MH1341-D084	Conditions from Anderson Rd	NE	A. Jackson	08-May-25
MH1341-D085	Conditions from Anderson Rd	E	A. Jackson	08-May-25
MH1341-D086	Recreational trail under hydro line from Anderson Rd	SE	A. Jackson	08-May-25
MH1341-D087	Creek on west side of Anderson, north of study area	SW	A. Jackson	08-May-25
MH1341-D088	Recreational path north of the study area, west side of Anderson Rd	SW	A. Jackson	08-May-25
MH1341-D089	West side of Anderson Rd	S	A. Jackson	08-May-25
MH1341-D090	Conditions west of Anderson Rd	SW	A. Jackson	08-May-25
MH1341-D091	Conditions east of Anderson Rd	NE	A. Jackson	08-May-25
MH1341-D092	Conditions east of Anderson Rd	NE	A. Jackson	08-May-25
MH1341-D093	Conditions west of Anderson Rd	SW	A. Jackson	08-May-25
MH1341-D094	Conditions east of Anderson Rd	NE	A. Jackson	08-May-25
MH1341-D095	Agricultural fields east of Ramsayville Rd	NE	A. Jackson	08-May-25
MH1341-D096	Conditions west of Ramsayville Rd	SW	A. Jackson	08-May-25
MH1341-D097	Conditions east of Ramsayville rd	NE	A. Jackson	08-May-25
MH1341-D098	Borthwick Creek, east of Ramsayville Rd.	NE	A. Jackson	08-May-25
MH1341-D099	Borthwick Creek, east of Ramsayville Rd.	NE	A. Jackson	08-May-25
MH1341-D100	Borthwick Creek, east of Ramsayville Rd.	E	A. Jackson	08-May-25
MH1341-D101	Borthwick Creek, east of Ramsayville Rd.	E	A. Jackson	08-May-25
MH1341-D102	West side of Ramsayville Rd	SW	A. Jackson	08-May-25
MH1341-D103	West side of Ramsayville Rd	SW	A. Jackson	08-May-25
MH1341-D104	Borthwick Creek, west of Ramsayville Rd	SW	A. Jackson	08-May-25
MH1341-D105	East side of Ramsayville Rd	NE	A. Jackson	08-May-25
MH1341-D106	Conditions on the west side of Ramsayville Rd	SW	A. Jackson	08-May-25
MH1341-D107	Agricultural field, east side of Ramsayville Rd	NE	A. Jackson	08-May-25
MH1341-D108	At the end of Hydro Road, near western transformer station	NE	A. Jackson	08-May-25
MH1341-D109	Conditions by west transformer station	SE	A. Jackson	08-May-25
MH1341-D110	Conditions north of Hydro Road	N	A. Jackson	08-May-25
MH1341-D111	Conditions north of Hydro Road	NW	A. Jackson	08-May-25
MH1341-D112	Conditions north of Hydro Road	NW	A. Jackson	08-May-25
MH1341-D113	Conditions north of Hydro Road	NW	A. Jackson	08-May-25
MH1341-D114	Conditions north of Hydro Road	NW	A. Jackson	08-May-25
MH1341-D115	Conditions north of Hydro Road	N	A. Jackson	08-May-25
MH1341-D116	Work yard for hydro station, north of Hydro road	NW	A. Jackson	08-May-25
MH1341-D117	Hydro Road	E	A. Jackson	08-May-25
MH1341-D118	Hydro Road	E	A. Jackson	08-May-25
MH1341-D119	Conditions north of Hydro Road	NE	A. Jackson	08-May-25
MH1341-D120	Conditions north of Hydro Road and Derrick	E	A. Jackson	08-May-25
MH1341-D121	Renaud Rd	SE	A. Jackson	08-May-25
MH1341-D122	Built up bridge/culvert on Renaud Rd	S	A. Jackson	08-May-25
MH1341-D123	Renaud Rd	S	A. Jackson	08-May-25
MH1341-D124	Built up bridge/culvert on Renaud Rd	NW	A. Jackson	08-May-25
MH1341-D125	Renaud Rd	NW	A. Jackson	08-May-25
MH1341-D126	Renaud Rd	N	A. Jackson	08-May-25
MH1341-D127	Centre of Renaud Rd	NW	A. Jackson	08-May-25
MH1341-D128	Built up bridge/culvert on Renaud Rd	N	A. Jackson	08-May-25
MH1341-D129	Built up bridge/culvert on Renaud Rd	SE	A. Jackson	08-May-25
MH1341-D130	Anderson Road	SE	A. Jackson	08-May-25
MH1341-D131	Anderson Road	SE	A. Jackson	08-May-25
MH1341-D132	Enbridge gas along Anderson Road	SE	A. Jackson	08-May-25

Photo Number	Description	Direction	Photographer	Date
MH1341-D133	Enbridge gas along Anderson Road	SE	A. Jackson	08-May-25
MH1341-D134	Anderson Road	N	A. Jackson	08-May-25
MH1341-D135	Anderson Road	NW	A. Jackson	08-May-25
MH1341-D136	Anderson Road	NW	A. Jackson	08-May-25
MH1341-D137	Anderson Road	S	A. Jackson	08-May-25
MH1341-D138	Ramsayville Road	S	A. Jackson	08-May-25
MH1341-D139	Culvert on Ramsayville Road	SE	A. Jackson	08-May-25
MH1341-D140	Culvert on Ramsayville Road	SE	A. Jackson	08-May-25
MH1341-D141	Edge of Ramsayville Road	SE	A. Jackson	08-May-25
MH1341-D142	Ramsayville Road	NW	A. Jackson	08-May-25
MH1341-D143	Ramsayville Road	N	A. Jackson	08-May-25
MH1341-D144	Culvert on Ramsayville Road	NW	A. Jackson	08-May-25
MH1341-D145	Culvert on Ramsayville Road	NW	A. Jackson	08-May-25
MH1341-D146	Culvert on Ramsayville Road	NW	A. Jackson	08-May-25
MH1341-D147	Ramsayville Road	N	A. Jackson	08-May-25
MH1341-D148	Centre of Ramsayville Road	SE	A. Jackson	08-May-25

Appendix B: Document Catalogue

Project	Description	Created By
MH1341	Orleans Hydro Corridor – Stage 1 Site Inspection - Fieldnotes (One Note File)4	A. Jackson

Appendix C: Map Catalogue

Map Number	Description	Created By
1	Location	B. Mortimer
2	Development Map	B. Mortimer
3	Archaeological Potential	B. Mortimer
4	Conditions, Photo Key, Methods, Operations A and B	B. Mortimer
5	Conditions, Photo Key, Methods, Operation C	B. Mortimer
6	Conditions, Photo Key, Methods, Operation D	B. Mortimer
7	Conditions, Photo Key, Methods, Operation E	B. Mortimer
8	Conditions, Photo Key, Methods, Operations F and G	B. Mortimer
9	Conditions, Photo Key, Methods, Operation H	B. Mortimer
10	Conditions, Photo Key, Methods, Operation H	B. Mortimer
11	Conditions, Photo Key, Methods, Operation H	B. Mortimer
12	Historic, Walling 1863, Gloucester	B. Mortimer
13	Historic, Belden 1879, Gloucester	B. Mortimer
14	Aerial Images	B. Mortimer
15	Aerial Images	B. Mortimer
16	Aerial Images	B. Mortimer
17	Soils, Surficial Geology, Physiography, Operations A to C	B. Mortimer
18	Soils, Surficial Geology, Physiography, Operations D to G	B. Mortimer
19	Soils, Surficial Geology, Physiography, Operation H	B. Mortimer
20	Previous Archaeological Assessments	B. Mortimer

Appendix B-2

Cultural Heritage Report

ORIGINAL REPORT

Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment

Hydro One Orléans Area
Reinforcement Project

Prepared For

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January 26, 2026
Submitted for Review: 19 September 2025

Submitted By

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Report: MH1424-REP 01.R1

Executive Summary

Matrix Heritage, on behalf of Dillon Consulting Limited (Dillon), completed a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (Cultural Heritage Report) of the proposed Hydro One Networks Inc. (HONI) Orléans Area Reinforcement Project. This significant infrastructure project involves converting an existing 115 kV circuit to a 230 kV circuit from the Hawthorne Transformer Station to the Orléans Transformer Station and constructing a new 11-kilometre, 115 kV pole line along existing Hydro One easements (Map 1).

Built Heritage Resources

There are five (5) properties in the study area with buildings that appear to be older than 40 years of age. These properties are all within the municipal context (Map 2). The properties are:

- 2642 Pagé Road, built sometime between 1965 and 1976
- 2687 Pagé Road, built sometime between 1965 and 1976
- 2171 Mer-Bleue Road, possibly built before 1976
- 2179 Mer-Bleue Road, built sometime before 1976, estimated 1960s
- 2201 Mer-Bleue Road, built sometime before 1976, estimated 1960s.

This report concludes that none of these properties should be reviewed further through individual CHERs or through HIAs because they are of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Regulation 9/06 of the Ontario Heritage Act.

Cultural Heritage Landscapes

The Greenbelt is closely associated with the Gréber Plan, and can be considered both as a landmark, and as important in defining the character of the area.

The portion of the study area within the Greenbelt, administered by the National Capital Commission (NCC), includes agricultural areas identified by the NCC as Cultural Landscapes within the "Greenbelt Heritage Farmstead collection." No built heritage resources were identified within the Greenbelt portion of the study area.

This report concludes that a Heritage Impact Assessment (HIA) will be required for the portion of the project area located within the Greenbelt. The HIA will assess and provide recommendations to avoid, eliminate or mitigate impacts to the identified cultural landscapes.

Project Personnel

Heritage Study Personnel	Lead	Natalie Anderson Rathwell, MA, CAHP Senior Architectural Historian and Heritage Consultant
	Research Assistance	Giulia Santocono, MArch Junior Heritage Consultant
	Indigenous Engagement & GIS	Jeff Dillane, MA, APA Archaeological Operations Manager and GIS Specialist and Em Miller, BA GIS Technician

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Property Information

Geographic Township of Gloucester, Former County of Carleton, City of Ottawa:

- Part Lots 8 to 14, Concession 3 Ottawa Front;
- Part Lots 14 to 20, Concession 4 Ottawa Front;
- Part Lot 1, Concession 6 Rideau Front;
- Part Lots 1 to 7 and 11, Concession 3 Ottawa Front;
- Part Lots 1 and 2, Concession 6 Rideau Front;
- Renaud Road Allowance, Concession 3 Ottawa Front,;
- Road Allowance at Lots 14 and 15, between Concessions 3 and 4 Ottawa Front;
- Anderson Road Allowance between Lots 15 and 16, Concession 4 Ottawa Front;
- Ramsayville Road Allowance, Lot 1, between Concession 6 Rideau Front and Concession 4 Ottawa Front; And

Geographic Township of Cumberland, Former County of Carleton, City of Ottawa

- Part Lots 1 and 2, Concession 11

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1.0 Introduction

1.1 Purpose of the Report

Matrix Heritage, on behalf of Dillon Consulting Limited (Dillon), undertook a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment[1] (Cultural Heritage Report) to fulfill requirements for a Class Environmental Assessment for Transmission Facilities (Hydro One, February 2024) involving converting an existing 115 kV circuit to a 230 kV circuit from the Hawthorne Transformer Station to the Orléans Transformer Station and constructing a new 11-kilometre, 115 kV pole line along existing Hydro One easements. The study area is the full extent of the proposed work (project area), as well as the immediately adjacent properties on either side of the corridor (Map 1, Map 2).

1.2 Methodology

For cultural heritage, the first step for the Class Environmental Assessment for Transmission Facilities is to complete a screening checklist evaluating whether there are existing or potential Cultural Heritage Resources (CHRs) in the categories of Built Heritage Resources and Cultural Heritage Landscapes present in the study area. If the screening checklist confirms that potential heritage resources are present, each resource would require a full or abridged Cultural Heritage Evaluation Report (CHER) by a qualified heritage specialist to determine whether potential heritage resources are of sufficient cultural heritage value or interest to warrant conservation. Those resources, and any previously identified or designated resources, would then be the subject of a Heritage Impact Assessment (HIA) of the proposed undertaking.

The completed screening checklist *Criteria For Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*[2] is attached here as Appendix A. Information for the checklist was drawn from heritage inventories (City of Ottawa, the Ontario Heritage Trust, the Canadian Register of Historic Places), a desktop survey of the study area's history and heritage, a site visit, studies by the National Capital Commission (NCC), and the professional judgement of the senior consultant.

The study area for this Cultural Heritage Report follows the project area of the hydro corridor from the Hawthorne Transformer Station to the Orléans Transformer Station and includes the property parcels immediately adjacent to the project area, including properties within the boundaries of the federal Greenbelt (see 6.0 Maps and Plans) The boundaries of the study area for the Cultural Heritage Report are distinct from archaeological assessment boundaries which address archaeological potential. Study areas for understanding cultural heritage impacts, as related to roadways or corridors, include all properties that have the potential to be impacted during all stages of construction and use, and address both sides of the road or corridor. Sections 3.0 Research – Determining Cultural Heritage Resources Present, and 4.0 Conclusion, provide the results of the screening.

[1] This report has been retitled from 'Cultural Heritage Screening' in response to comments from the Ministry of Citizenship and Multiculturalism, and an expanded history of the area included in keeping with the updated report type.

[2] Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (now Ministry of Citizenship and Multiculturalism), 2016, *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes, A Checklist for the Non-Specialist.* Online at: https://forms.mgcs.gov.on.ca/dataset/30990b3f-c2f7-451e-90f9-10bef98ea9e2/resource/992f3844-62a5-4091-9e08-ce406dc57850/download/0500e.pdf.

1.2.1 Study Personnel

This study was led by Natalie Anderson Rathwell[3], MA, CAHP, Senior Architectural Historian and Heritage Consultant, Matrix Heritage, who conducted the site visit and is the author of the report. Giulia Santocono[4], MArch, Junior Heritage Consultant, Matrix Heritage, assisted with research.

2.0 About the Study Area

- Location Plan of the Study Area: **Map 1**
- Aerial Photographs of the Study Area: **Map 2**
- NCC *Greenbelt Master Plan* (2013) Map, Greenbelt Land Designations: **Map 3**
- NCC *Greenbelt Master Plan* (2013) Map, Mer Bleue Sector: **Map 4**

2.1 Development Context

The study area comprises segments of a broader corridor aligned generally with an existing hydro transmission line, extending north-east from the Hawthorne Transformer Station near Walkley Road and Hawthorne Road in the west, to the Orléans Transformer Station near Innes Road and Tenth Line Road in the east (See 5.0 Figures and 6.0 Maps and Plans). The study area includes a range of land uses and vegetation types, including forested and meadow environments, marshland, agricultural fields, residential and commercial buildings, parking lots, one pond/catchment basin, multi-use pathways and intersecting roadways.

The study area includes a portion of Ottawa's Greenbelt, federal property administered by the NCC, which includes forest, meadow, marshland, and agricultural fields. East of Lot 8, Concession 3, Ottawa River, which is west of the intersection of Navan Road and Brian Coburn Road, the study area includes municipal properties in the neighbourhoods of Chapel Hill South and Avalon that abut the hydro corridor. The Orléans Transformer Station is located behind a business park which occupies the south side of Innes Road, between Mer-Bleue Road and Tenth Line Road.

The study area to the east of the NCC Greenbelt is within the Orléans area of Ottawa. Orléans was formerly an independent municipality, amalgamated with the City of Ottawa in 2001.

The majority of the neighbourhoods adjacent to the project area were constructed after 1991[5]. GeoOttawa aerial maps show Chapel Hill, north of the project area under construction in 1999, and the business park adjacent to the Orléans Transformer section under development from 1991-2009. Development of Chapel Hill, south of the project area, has been underway from approximately 2008 and continues today, as has development of the Avalon neighbourhood, south of the eastern end of

[3] Qualifications of the consultant: Natalie Anderson Rathwell is a Senior Architectural Historian for Matrix Heritage, with six years of experience in cultural heritage reporting, and fifteen years of related experience in the fields of history, art and architectural history. She holds a BA and MA from Carleton University and partially complete doctoral studies (ABD) at York University. She is a professional member of the Canadian Association of Heritage Professionals and a member of the Society for the Study of Architecture in Canada.

[4] Qualifications of the consultant: Giulia Santocono is a Junior Architectural Historian for Matrix Heritage. She holds a BArch and MArch from Toronto Metropolitan University.

[5] City of Ottawa, GeoOttawa mapping application. Accessed Sep 2025. Online at geoOttawa.

the project area. The hydro corridor itself predates the development of most of Orléans and is evident in aerial maps from 1965. A small number of houses constructed before 1976 are present along Navan Road, Pagé Road, and Mer-Bleue Road. Five (5) of these fall within the study area.

A number of NCC recreational trails and municipal multi-use pathways pass under the hydro corridor. The Chapel Hill South Park and Ride, a stream and pond/catchment basin are located under the hydro corridor east of the intersection of Brian Coburn Boulevard and Navan Road, as is the parking lot of the Whispering Winds Apartments, at 150 and 160 Whispering Winds Way, west of Navan Road.

2.1.1 Background and Historical Research

A more complete account of the Anishinabe Algongonquin history of the region, and settlement of the historic lots within the study area is found in the *Stage 1 Archaeological Assessment* and *Archaeology Overview Assessment* by Matrix Heritage, produced concurrently with this report (2025). The following paragraphs provide a synopsis of that history.

Archaeological information suggests that ancestral Anishinabe Algonquin people lived in the region for at least 8,000 years before the Europeans arrived in North America. This traditional territory is generally considered to encompass the Ottawa Valley on both sides of the river, in Ontario and Quebec, from the Rideau Lakes to the headwaters of the Ottawa River. The region is dominated by the Canadian Shield which is characterized by low rolling land of Boreal Forest, rock outcrops and muskeg with innumerable lakes, ponds, and rivers. This environment dictated much of the traditional culture and lifestyle of the Anishinabe Algonquin peoples. At the time of European contact, the Anishinabe Algonquin territory was bounded on the east by the Montagnais people, to the west by the Nipissing and Ojibwa, to the north by the Cree, and to the south by the lands of the Iroquois. The unceded Anishinabe Algonquin territories encompass nine million areas of land across much of Eastern Ontario.

A rough survey of the Township of Gloucester was initiated in 1792 but was not completed until 1820. The township was named for William Frederick, second Duke of Gloucester and Edinburgh, nephew of King George III.[6] The 83,000-acre township was laid out in the typical mile and a quarter concessions, but had two fronts: one facing the Ottawa River, and one facing the Rideau River.[7]

Braddish Billings, a lumber jobber working on the Rideau River for Philamon Wright of Hull, was the first settler in Gloucester Township, squatting on Lot 17 of the clergy reserve along the Rideau River in 1812.[8] In 1825, Billings was appointed Clerk and Assessor for Gloucester Township, and the first assessment lists 12 families.[9] Settlement first occurred along the rivers and the early pioneer communities of the township consisting of Manotick, Long Island Village, Gateville (Billings Bridge), Janeville (Vanier), and New Edinburgh. As roads pushed inland the villages of Cyrville, St. Joseph (Orléans), and Cathartic (Carlsbad Springs) developed. By the late 1820s the township's lumber was mostly felled and agriculture became the main source of revenue.[10]

[6] Glenn Clark, "A Historical Timeline for the Township of Gloucester," 2012.
[7] Tanya Wackley, *Gloucester: The Proud Legacy of Our Communities* (Gloucester Historical Society, 2000), 1.
[8] Robert-Lionel Sequin, "Le Costume Civil En Nouvelle-France," *National Museum of Canada Bulletin* 215 (1968): 4, 14.
[9] Glenn Clark, "A Historical Timeline for the Township of Gloucester," 2012.
[10] Sequin, "Le Costume Civil En Nouvelle-France," 4–5, 14.

The land patents for most of the original 15 lots within the study area are relatively early. Four of these lots were granted in 1803, three of which were awarded to women (LRO (04)). The early patents and the fact that they were granted to women suggests these were the wives or daughters of United Empire Loyalists, receiving land grants based on their husband's or father's service during the American Revolution. Based on the surnames in this group of lots the Loyalists belonged to a Scottish regiment. These land grants were often in areas that were not yet settled, and the original early grantee may have never seen the property in person. Most of these properties sat idle and were sold decades after the original patent was granted.

Three lots were granted in 1846 to the Canada Company which was a large private chartered British land development corporation established in 1825 to promote settlement in Upper Canada. Two lots were granted earlier, in 1811. Seven lots, including those issued to the Canada Company, were granted between 1832 and 1847, and the final two were granted in the 1860s (LRO (04)).

The NCC Greenbelt was established beginning in the 1950s as part of the *General Report on the Plan on the Plan for the National Capital,* or *Gréber Plan*. The majority of these properties were acquired by the NCC during the late 1950s and early 1960s.

As stated above the hydro corridor itself predates the development of most of Orléans and is evident in aerial maps from 1965. A small number of houses constructed before 1976 are present along Navan Road, Pagé Road, and Mer-Bleue Road. The majority of the neighbourhoods adjacent to the project area were constructed after 1991.[11] GeoOttawa aerial maps show Chapel Hill, north of the project area under construction in 1999, and the business park adjacent to the Orléans Transformer section under development from 1991-2009. Development of Chapel Hill, south of the project area, has been underway from approximately 2008 and continues today, as has development of the Avalon neighbourhood, south of the eastern end of the project area

2.1.2 Description of Nearby Neighbourhoods

While the neighbourhoods surrounding the study area in Orleans are predominantly characterized by modern suburban growth occurring after 1991, they contain distinct pockets of development exceeding 40 years of age. In Chapel Hill South, the residential landscape is largely defined by construction from 2008 onward, yet it retains specific residential structures along the Page Road corridor that date back to the period between 1965 and 1976. These older elements exist alongside modern infrastructure, such as the local NCC trails, Park and Ride and multi-use pathways that intersect with a hydro transmission corridor that has been present in the landscape since at least 1965.

The Avalon neighbourhood, located at the eastern end of the project area, similarly features extensive modern development that continues into the present day. However, the area near Mer-Bleue Road preserves a small number of older residential and commercial buildings, with some estimated to have been constructed in the 1960s. These structures represent an earlier era of development that predates the neighbourhood's transition into a dense suburban and business park environment. The broader neighbourhood context is further defined by its proximity to the Greenbelt, which introduces significant natural features like forested lands, marshlands, and agricultural fields into the immediate vicinity of these established residential areas.

[11] City of Ottawa, GeoOttawa mapping application. Accessed Sep 2025. Online at geoOttawa.

2.1.4 Existing Heritage Descriptions Under the Ontario Heritage Act

No properties listed on the municipal heritage register for the City of Ottawa or fully designated under the Ontario Heritage Act fall within the study area.

There are no existing heritage descriptions of the project area or study area.

2.1.5 Formal Federal Recognitions and Plans

The following plans pertain to the Greenbelt:

National Capital Commission. *Greenbelt Master Plan,* 2013. Online at https://ncc-ccn.gc.ca/our-plans/greenbelt-master-plan.

National Capital Commission. *Plan for Canada's Capital, 2017-2067.* Online at https://ncc-ccn.gc.ca/our-plans/the-plan-for-canadas-capital-2017-2067.

2.1.6 Site Visit

A site visit was conducted by the consultant, Natalie Anderson Rathwell, MA, CAHP, Senior Architectural Historian for Matrix Heritage, on 5 September 2025. The site visit included viewing and photographing the project area and wider study area from all intersecting and parallel roadways, both from a vehicle and on foot, and assessing the relationship of the project area to buildings and landscapes within the study area. See 5.0 Figures.

3.0 Research – Determining Cultural Heritage Resources Present

3.1 Categories of Heritage

Cultural Heritage Resources (CHRs) include Built Heritage Resources, Cultural Heritage Landscapes, and Archaeological Resources. Archaeological Resources are beyond the scope of this Cultural Heritage Report as archeology is subject to separate requirements.

Using the checklist of the Ontario Ministry of Citizenship and Multiculturalism (former Ministry of Heritage, Sport, Tourism and Culture Industries) *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*, the Consultant used online inventories to confirm that there were no CHRs in the relevant categories of:

- Heritage properties designated fully (Provincial or Municipal) or registered only under Part IV of the Ontario Heritage Act
- Heritage properties designated as a Heritage Conservation District under Part V of the Ontario Heritage Act
- a National Historic Site (or part of)
- identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO).

3.2 Previous Studies

The 1999 report by Brenda Kennett, Heritage Quest Inc., *Stage 1 Archaeological Assessment of the Hydro Transmission Corridor from the Hawthorne Transformer Station (Ottawa) to the Cumberland Junction, Regional Municipality of Ottawa Carleton*, identified two heritage resources along the hydro corridor (Figure 33). One of these, the Cameron House at 2226 Queen Street, outside Cumberland, is not in the study area. The second was identified at the time by the Gloucester Local Architectural Conservation Advisory Committee (LACAC) as the Ladouceur farm on Mer-Bleue Road, south of the hydro corridor. The report concluded the Ladouceur farm, "would not be affected by any redevelopment along the corridor."[12] The consultant has not been able to determine the exact location of the Ladouceur farm at the time of this screening, however no historic farm buildings exist today along Mer-Bleue Road in the area immediately south of the hydro corridor.

[12] Brenda Kennett, Stage 1 Archaeological Assessment of the Hydro Transmission Corridor from the Hawthorne Transformer Station (Ottawa) to the Cumberland Junction, Regional Municipality of Ottawa Carleton. Heritage Quest Inc., 20.

3.3 Properties with Potential for Built Heritage Resources or Cultural Heritage Landscapes

3.3.1 Properties with Potential for Built Heritage Resources

The study area includes five (5) properties with buildings that may be older than 40 years of age, as listed in the table below.

Table 1. Properties/Buildings in the Study Area identified as more than 40 years old.

Property Type	Neighbourhood	Street Address	Construction Era[13]	Figure
Residential	Chapel Hill South	2642 Pagé Road	Before 1976, After 1965	Figure 22
Residential	Chapel Hill South	2687 Pagé Road	Before 1976, After 1965	Figure 15
Residential	Avalon	2171 Mer-Bleue Road	Possibly before 1976 (May occupy the same footprint as an earlier building)	Figure 29
Commercial (formerly Residential)	Avalon	2179 Mer-Bleue Road	Before 1976, estimated 1960s	Figure 29
Residential	Avalon	2201 Mer-Bleue Road	Before 1976, estimated 1960s	Figure 27

All of the properties listed in Table 1 are examples of mass-produced vernacular architecture, typical of their construction era, with varying degrees of later additions or modifications.

3.3.2 City of Ottawa Heritage Register

The study reviewed lists of built heritage resources and cultural heritage landscapes listed on the City of Ottawa's heritage register, or fully designated, through provisions of the *Ontario Heritage Act* using the City of Ottawa's mapping application, GeoOttawa[14]. No designated or listed properties were identified within the study area. None of the five properties identified as older than 40 years within the study area was mapped as designated or listed on the heritage register.

3.3.3 Ontario Heritage Trust Register

The study searched the online inventory of designated heritage properties maintained by the Ontario Heritage Trust.[15] None of the five properties was listed. The plaque database is not maintained, but no historic plaques were seen in the site visit.

[13] Approximate construction dates have been determined based on aerial views from the City of Ottawa's GeoOttawa mapping application where available, in conjunction with architectural style.

[14] City of Ottawa, online mapping application "GeoOttawa," online at https://maps.ottawa.ca/geoottawa/.

[15] Ontario Heritage Trust, "Ontario Heritage Act Register," online at www.heritagetrust.on.ca/pages/tools/ontario-heritage-act-register.

3.3.4 Federal and International Cultural Heritage Resources

Using the checklist of the MCM *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*, (Appendix A) the Consultant used online sources to confirm that there were no CHRs in the categories of:

- a National Historic Site (or part of),
- designated under the Heritage Railway Stations Protection Act,
- designated under the Heritage Lighthouse Protection Act,
- identified as a Federal Heritage Building by the Federal Heritage Review Office (FHRO, formerly Federal Heritage Buildings Review Office, FHBRO), and
- located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site.

No built heritage resources/cultural heritage landscapes within the above categories fall within the study area.

3.3.4.1 Greenbelt

The NCC's *Greenbelt Master Plan* (updated in 2013) identifies four hierarchical roles for the Greenbelt:

- Primary role of Natural Environment;
- Secondary roles of Sustainable Agriculture;
  And Capital Experiences and Recreation; and the
- Tertiary role of Facilities.[16]

Cultural heritage falls within the secondary role of Capital Experiences and Recreation.[17]

The plan states that:

> "Within the Greenbelt, cultural heritage includes a mix of built structures (such as the lime kiln, the Rideau Canal, and Carlsbad Springs), farmsteads and "cultural landscapes" (combined works of nature and human intervention) of farm fields, heritage forests and natural features."[18]

And, under section 6.3 Greenbelt Resources, 6.3.2 Cultural Resources:

> "Cultural resources consist of a combination of distinctive landscape features and man-made structures having historic value. The main Greenbelt cultural resources include heritage farmsteads and specific engineering and industrial structures such as the Lime Kiln and Rideau Canal lockstation at Black Rapids."[19]

The *Greenbelt Master Plan* does not include a complete list or mapping of cultural heritage resources within the Greenbelt but does include mapping of land designations across the whole

[16] NCC, *Greenbelt Master Plan* (2013), 45. Online at Greenbelt Master Plan | National Capital Commission
[17] NCC, *Greenbelt Master Plan* (2013), 48.
[18] NCC, *Greenbelt Master Plan* (2013), 140.
[19] NCC, *Greenbelt Master Plan* (2013), 81.

Greenbelt[20] and within the Mer Bleue Sector[21] impacted by the project area. These have been reproduced as Map 3 and Map 4 for this report.

Catherine Ruel, Heritage Officer for the NCC provided a list of twenty-three (23), "Cultural Landscapes in the area…requested (Greenbelt South of Innes)," part of the NCC's "Greenbelt Heritage Farmstead collection", of which the following eight (8) property parcels are close to, but outside of the study area, and may correspond to the areas of agricultural land within the study area.

- Woodburn Farm, 2090 Innes Road
- Delaney Farm, 2170 Anderson Road
- McNeely Farm, 2567 Navan Road
- Gray Farm, 4584 Ridge Road
- MacArtney Poultry Farm, 4642 Ridge Road
- 4679 Ridge Road
- 4880 Ridge Road
- Powell Farm, 4839 Ridge Road

Mapping of the boundaries of the above identified cultural landscapes was not available upon request. No built heritage resources corresponding to the above properties fall within the study area. However, agricultural land between Ramsayville Road and Anderson Road, and between Navan Road and the north-south portion of Renaud Road, will require further investigation and correspondence with the NCC.

3.3.5 Applied Knowledge

The completion of the checklist (Appendix A) was also undertaken by applying the knowledge and expertise of the consultant, Natalie Anderson Rathwell, MA, CAHP, an architectural historian and cultural heritage specialist with six years in cultural heritage reporting and 15 years of experience in architectural history.

Based on the consultant's experience researching and reporting on municipal, provincial and federal sites, the consultant sees no evidence in the history, design or context of the five properties identified within the municipal context as having buildings over 40 years old to believe that they may be of Cultural Heritage Value or Interest.

The portion of the study area within the Greenbelt has been identified by the NCC as containing known or potential cultural heritage resources in the form of cultural heritage landscapes.

3.4 Archaeology

Archaeology studies of the area have been completed separately for the project by Matrix Heritage.

[20] NCC, *Greenbelt Master Plan* (2013), 55, PDF page 69.
[21] NCC, *Greenbelt Master Plan* (2013), 119, PDF page 133.

3.5 Engagement

3.5.1 Indigenous Engagement

Indigenous engagement for the project has been conducted by Matrix Heritage in conjunction with the corresponding archaeological studies. Engagement included outreach to the Algonquins of Pikwakanagan First Nation and the Algonquins of Ontario. The Record of Engagement is provided in the Supplementary Documentation Package of the Stage 1 and Archaeological Overview Assessment reports. A final draft of this report will be shared with Indigenous communities for review with any comments to be addressed.

3.5.2 National Capital Commission

The National Capital Commission, Capital Planning Branch, Federal Approvals, Heritage & Archaeology Programs, Heritage Program, was contacted through Pascale Guindon, Heritage Officer for information on identified Cultural Heritage Landscapes within the NCC Greenbelt in the vicinity of the project area by email on 11 Sep 2025. The request was relayed to Catherine Ruel, Heritage Officer on 16 Sep 2025. A reminder request was submitted by the consultant on 18 Sep 2025, and a response was promptly received including the list of properties identified in the above section 3.3.4.1. A follow up request was made by the consultant for mapping and whether an HIA would be the document type required by the NCC as a next step. Mapping of the listed properties and any corresponding lands was not available, and an HIA was confirmed to be, “most likely required.”

3.6 Potential Impacts

In the municipal portions of the study area, there are no properties of Cultural Heritage Value or Interest, and therefore there can be no potential impacts on heritage. Impacts on the recreational opportunities represented by the hydro corridor and associated landscape and multi-use pathways in the municipal context are beyond the scope of this Cultural Heritage Report.

In the federal context, the NCC Greenbelt within the study area has been identified as containing Cultural Landscapes within the NCC’s “Greenbelt Heritage Farmstead collection.” Potential adverse impacts include alteration that is not sympathetic to the landscape, shadows or obstructions that change the viability of an associated cultural heritage landscape, and land disturbances that adversely affect the cultural heritage resource.

4.0 Conclusion

This Cultural Heritage Report report has found:

Within the municipal context:

The screening identified five (5) properties with buildings of potential heritage value or interest based on their being older than 40 years of age:

- 2642 Pagé Road, built sometime between 1965 and 1976
- 2687 Pagé Road, built sometime between 1965 and 1976
- 2171 Mer-Bleue Road, possibly built before 1976
- 2179 Mer-Bleue Road, built sometime before 1976, estimated 1960s
- 2201 Mer-Bleue Road, built sometime before 1976, estimated 1960s.

This report concludes that none of these properties should be reviewed further through individual CHERs or through HIAs because they are of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Regulation 9/06 of the Ontario Heritage Act.

Within the federal context of the NCC Greenbelt:

This screening identified that the study area includes previously identified cultural heritage resources in the form of cultural landscapes within the NCC's "Greenbelt Heritage Farmstead collection." Additional research and correspondence with the NCC are required to identify the boundaries of the identified landscapes.

The Greenbelt is closely associated with the Gréber Plan, and can be considered both as a landmark and as important in defining the character of the area.

This report concludes that an HIA will be required to determine any general, positive, or adverse impacts of the project on the cultural landscapes of the Greenbelt. The HIA will assess and provide recommendations to avoid, eliminate or mitigate impacts to the identified cultural heritage resources.

5.0 Figures



Figure 1. Hawthorn Transformer Station. View from Russell Rd. Matrix Heritage, 5 Sep 2025.



Figure 2. View towards project area from corner of Walkley Rd and Ramsayville Rd. Matrix Heritage, 5 Sep 2025.



Figure 3. View towards project area from corner of Walkley Rd and Ramsayville Rd., looking east. Matrix Heritage, 5 Sep 2025.



Figure 4. View towards project area, looking south along Anderson Rd. Matrix Heritage, 5 Sep 2025.



Figure 5. Parking lot behind Whispering Winds Apartments, 160 and 150 Whispering Winds Way, looking west. Matrix Heritage, 5 Sep 2025.



Figure 6. Sunflower crop under project area, behind Whispering Winds Apartments, looking north. Matrix Heritage, 5 Sep 2025.



Figure 7. Project area viewed from Whispering Winds Apartments parking lot, looking north-east. Matrix Heritage, 5 Sep 2025.



Figure 8. Relationship of project area to properties in Whispering Winds Way. Matrix Heritage, 5 Sep 2025.



Figure 9. Percifor Way, south of project area. Residential dwellings constructed after 2008. Matrix Heritage, 5 Sep 2025.



Figure 10. Looking south-west from Navan Rd, towards the NCC Greenbelt. Matrix Heritage, 5 Sep 2025.



Figure 11. Chapel Hill South Park and Ride under project area, looking south-west. Matrix Heritage, 5 Sep 2025.



Figure 12. Chapel Hill South Park and Ride under project area, looking north-west. Matrix Heritage, 5 Sep 2025.



Figure 13. Chapel Hill South Park and Ride under project area, looking north-north-east. Matrix Heritage, 5 Sep 2025.



Figure 14. Blue Willow Cres., backing on the study area. Properties developed c. 1999-2002. Matrix Heritage, 5 Sep 2025.



Figure 15. 2687 Pagé Rd (south), south of the project area. Constructed after 1965 and before 1976. Matrix Heritage, 5 Sep 2025.



Figure 16. Looking west from 2687 Pagé Rd (south). Matrix Heritage, 5 Sep 2025.



Figure 17. Multi-use pathway under the project area, connecting the two halves of Pagé Rd. Matrix Heritage, 5 Sep 2025.



Figure 18. Pond/catchment basin east of Pagé Rd. Matrix Heritage, 5 Sep 2025.



Figure 19. Pond/catchment basin east of Pagé Rd. Matrix Heritage, 5 Sep 2025.



Figure 20. Pond/catchment basin east of Pagé Rd. Matrix Heritage, 5 Sep 2025.



Figure 21. Termination of north section of Pagé Rd. Matrix Heritage, 5 Sep 2025.



Figure 22. 2642 Pagé Rd (north), north of the project area. Constructed after 1965 and before 1976, with later additions and renovations. Matrix Heritage, 5 Sep 2025.



Figure 23. Auburn Ridge Drive, north of the study area. Properties developed c. 1999. Matrix Heritage, 5 Sep 2025.



Figure 24. View looking north-east towards Livorno Ct. from behind Montfort Hospital (Orléans). Properties developed c. 2018. Matrix Heritage, 5 Sep 2025.



Figure 25. 2220 Mer-Bleue Rd. GeoOttawa aerial mapping shows this property was not developed in 1976 but was constructed by 1991. Matrix Heritage, 5 Sep 2025.

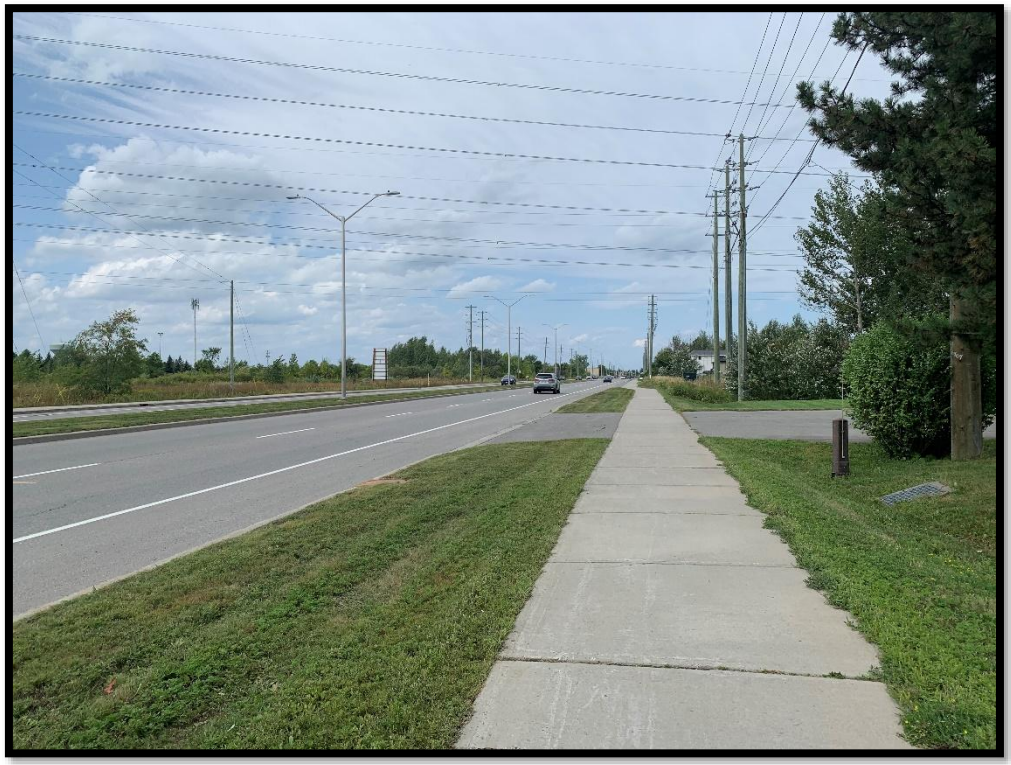


Figure 26. Project area, looking north on Mer-Bleue Rd. Matrix Heritage, 5 Sep 2025.



Figure 27. 2201 Mer-Bleue Rd. Constructed Before 1976, estimated 1960s. Matrix Heritage, 5 Sep 2025.



Figure 28. View towards 2179 Mer-Bleue Rd. Constructed before 1976, estimated 1960s. Renovated and changed from a residential to commercial property sometime between 2009 and 2016. Matrix Heritage, 5 Sep 2025.



Figure 29. 2171 and 2179 Mer-Bleue Rd. 2171 Mer-Bleue Rd. seems to have been constructed before 1976 but may occupy the same footprint as an earlier building. Google Streetview, July 2023.



Figure 30. Trigoria Cres., facing the project area from the south. Properties developed 2015-2016. Matrix Heritage, 5 Sep 2025.



Figure 31. Orléans Transformer Station. Looking south from corner of Lanthier Dr. and Vanguard Dr. Matrix Heritage, 5 Sep 2025.

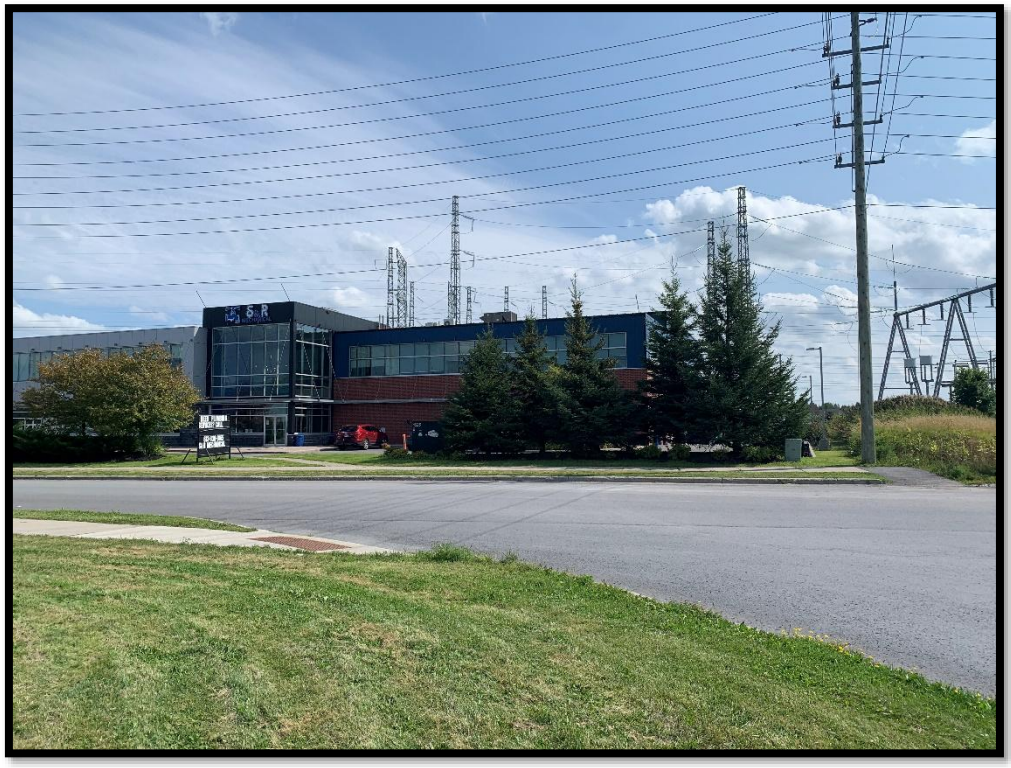


Figure 32. Commercial office park property at 250 Vanguard Dr. adjacent to the Orléans Transformer Station. Matrix Heritage, 5 Sep 2025.

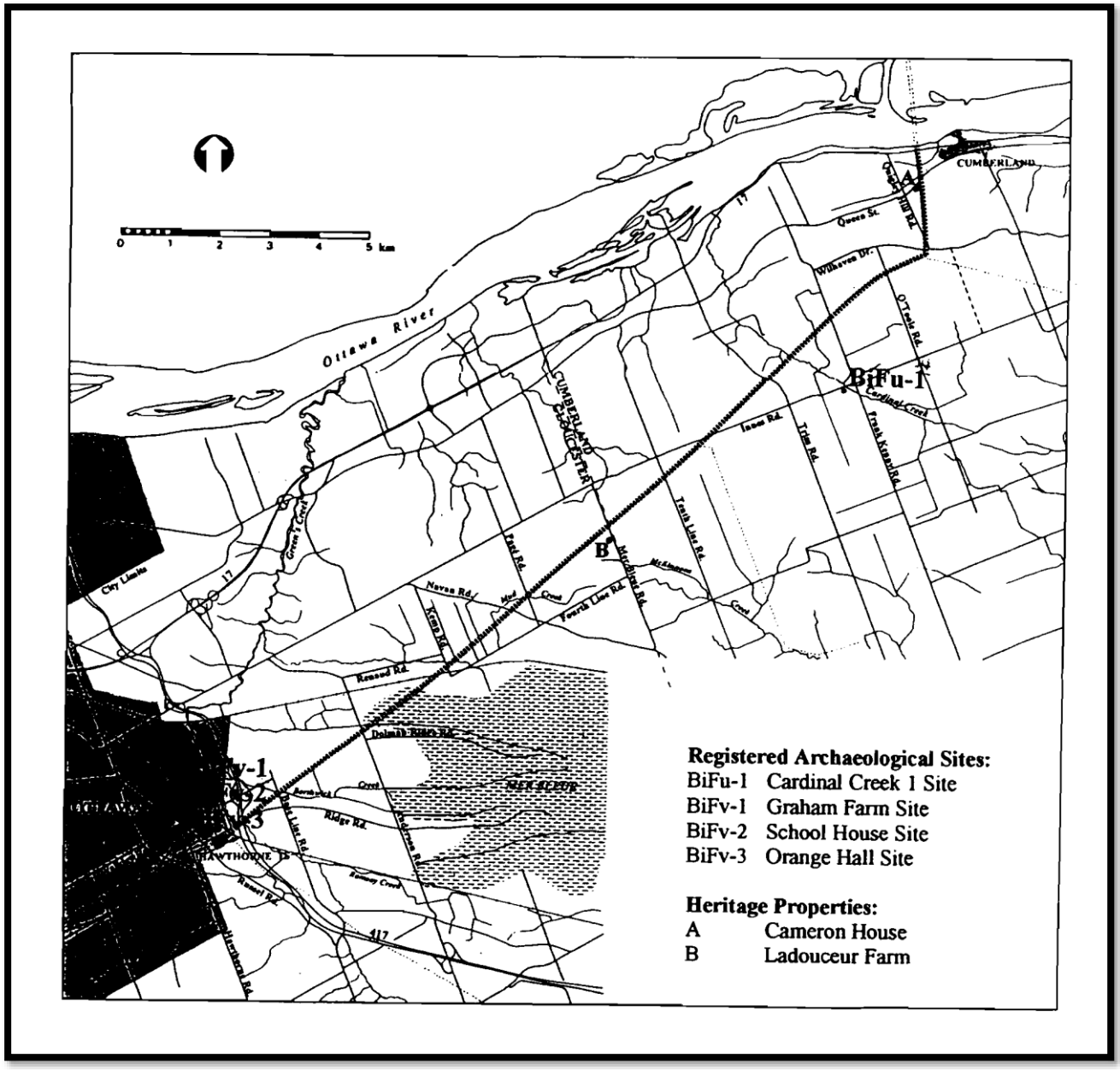
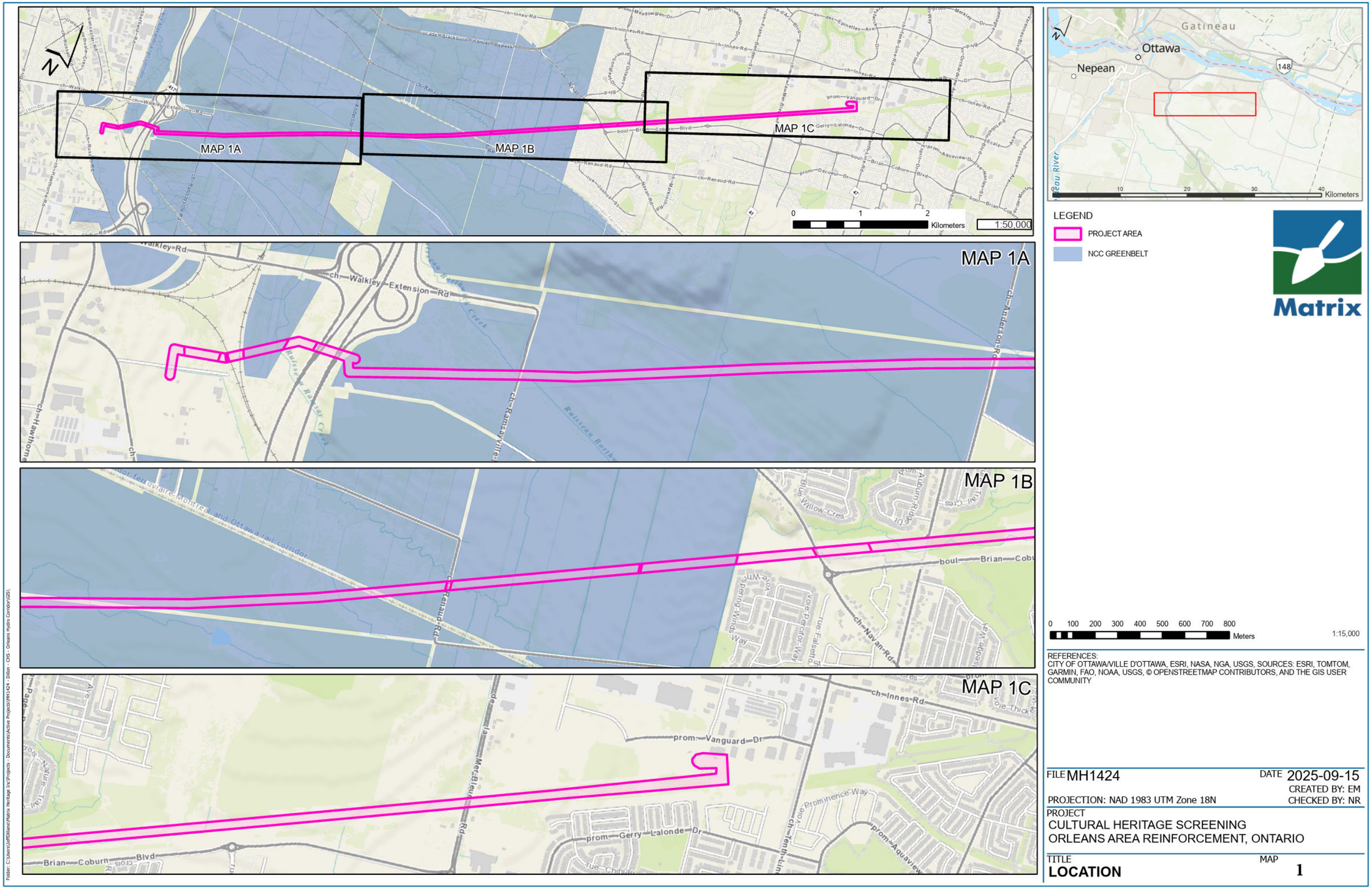
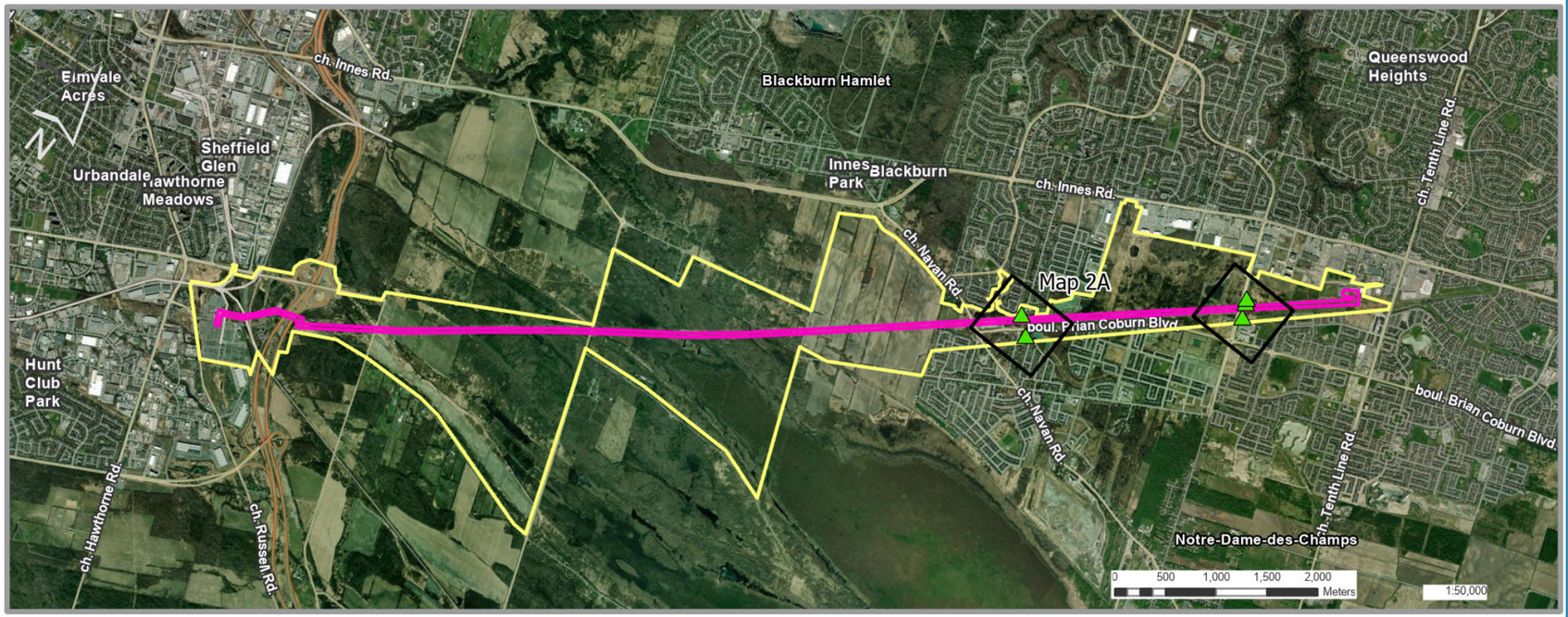
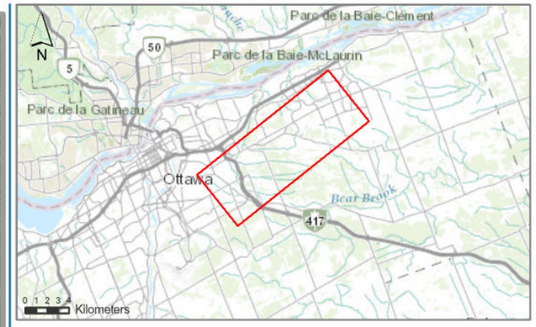


Figure 33. Map of registered archaeological sites and heritage properties in: Brenda Kennett, *Stage 1 Archaeological Assessment of the Hydro Transmission Corridor from the Hawthorne Transformer Station (Ottawa) to the Cumberland Junction, Regional Municipality of Ottawa Carleton*, Heritage Quest Inc., 1999, Figure 9, page 21.


MAP 1A
MAP 1B
MAP 1C
0 1 2 Kilometers
1:50,000
Gatineau
Ottawa
Nepean
148
0 10 20 30 40 Kilometers
LEGEND
PROJECT AREA
NCC GREENBELT
Matrix
0 100 200 300 400 500 600 700 800 Meters
1:15,000
REFERENCES:
CITY OF OTTAWA/VILLE D'OTTAWA, ESRI, NASA, NGA, USGS, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
FILE MH1424
DATE 2025-09-15
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY: NR
PROJECT
CULTURAL HERITAGE SCREENING
ORLEANS AREA REINFORCEMENT, ONTARIO
TITLE
LOCATION
MAP
1



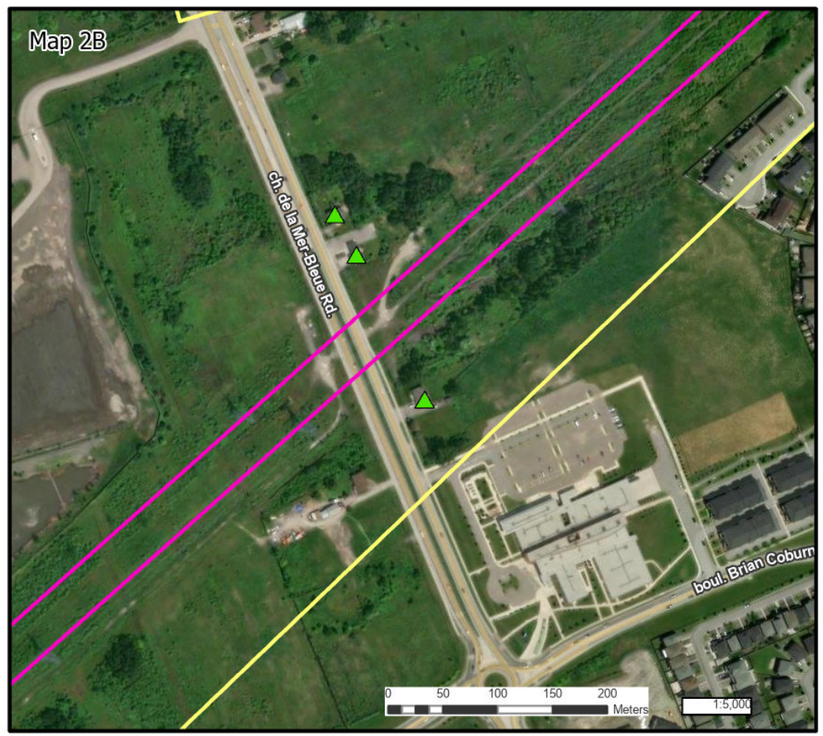


LEGEND

- STUDY AREA
- PROJECT AREA
- BUILDINGS OLDER THAN 40 YEARS

Matrix





REFERENCES:
MAXAR, MICROSOFT, CITY OF OTTAWA, VILLE DE GATINEAU, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, MAXAR

1965 AERIAL IMAGERY FROM GEOOTTAWA

1979 AERIAL IMAGERY FROM GEOOTTAWA

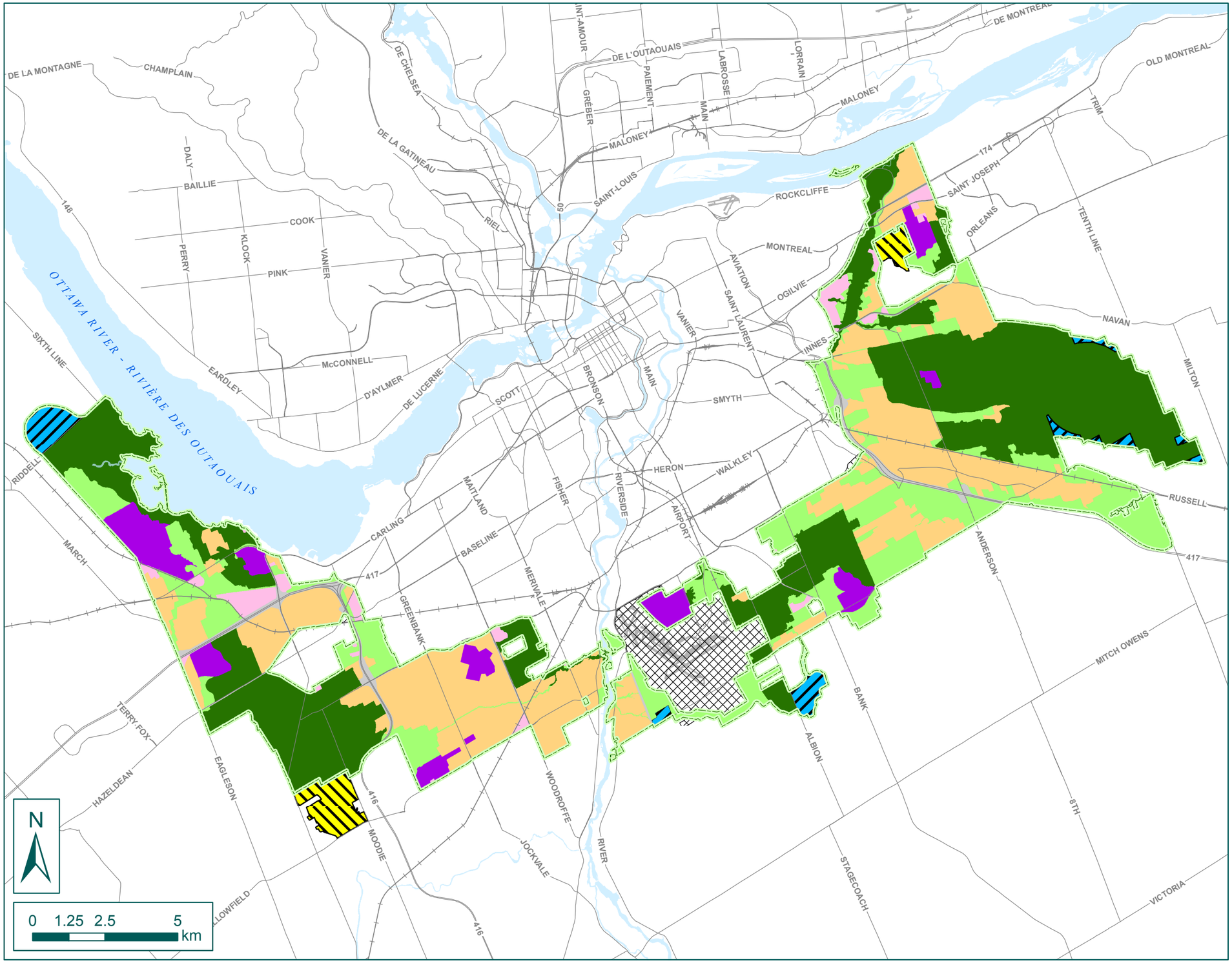
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PROJECTION: NAD 1983 UTM Zone 18N CHECKED BY:NR

PROJECT
CULTURAL HERITAGE SCREENING
ORLEANS AREA REINFORCEMENT, ONTARIO

TITLE
AERIAL OVERVIEW

MAP 2

Folder: C:\Users\JeffOlliver\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1424 - Dillon - CHS - Ontario Hydro Corridor\GIS\



NCC CCN Canada

2013-12-04

Figure 5.2

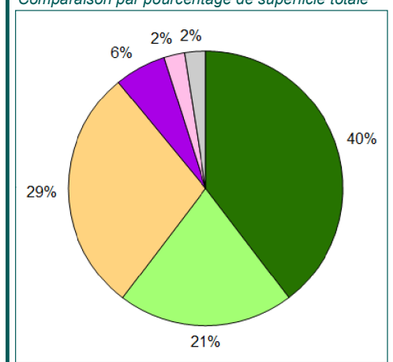
Greenbelt: Land Designations (2013)

Ceinture de verdure : Affectation du sol (2013)

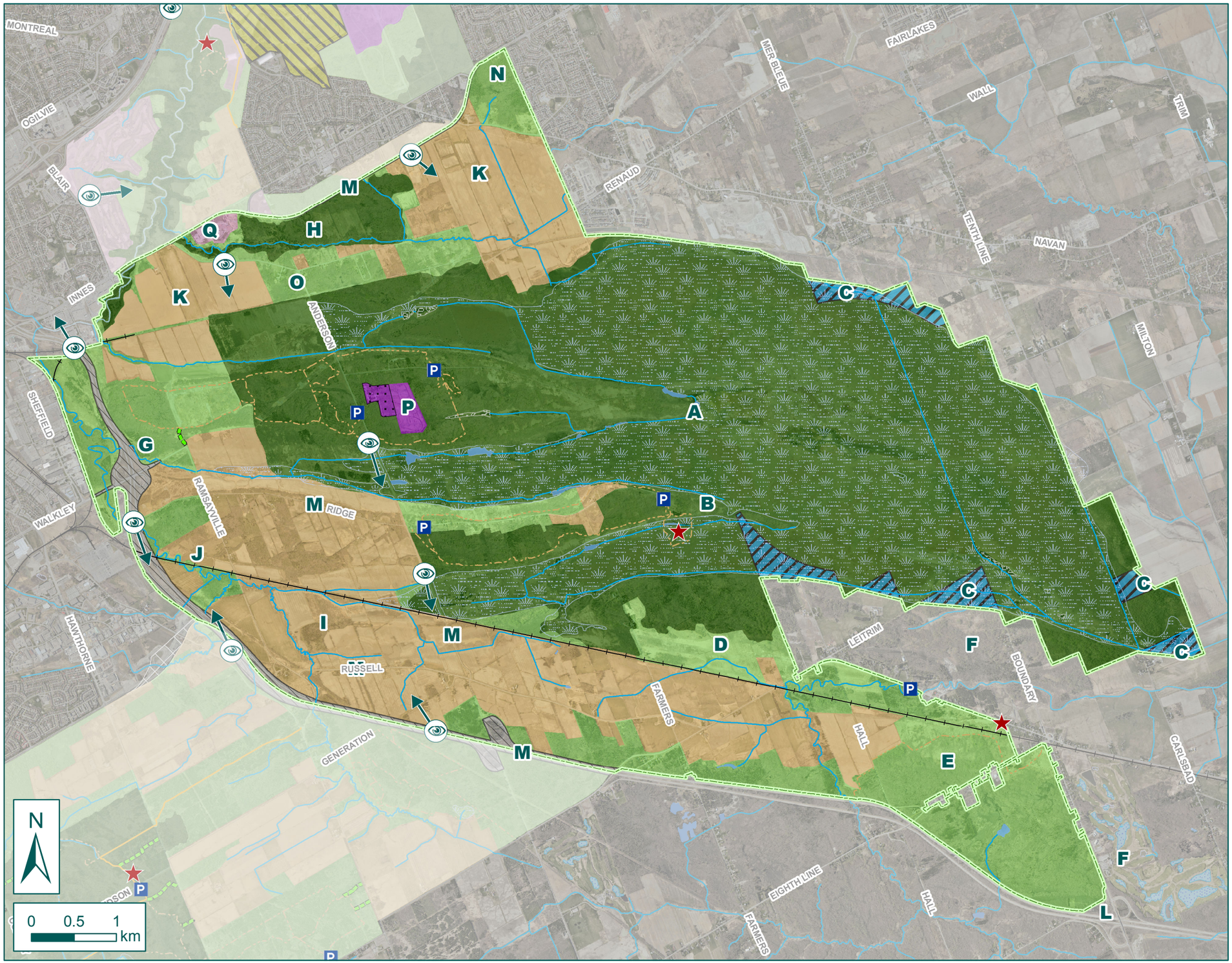
Legend • Légende

- Core Natural Area
  Aire naturelle principale
- Natural Link
  Lien naturel
- Agriculture
  Agriculture
- Federal Facility & Operations
  Installation et opérations fédérales
- Non-Federal Facility & Operations
  Installation et opérations non-fédérales
- Transportation Route
  Voie de transport
- Addition
  Ajout
- Removal
  Retrait
- Special Study Area
  Zone d'étude spéciale
- Greenbelt Limits
  Limites de la Ceinture de verdure

Comparison by percentage of total area
Comparaison par pourcentage de superficie totale



Map 3
Reproduced from NCC, *Greenbelt Master Plan* (2013)



NCC CCN Canada

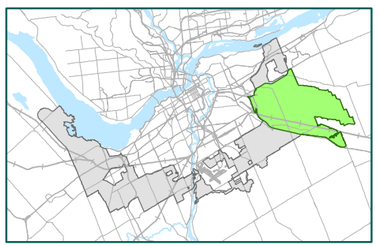
2013-06-26

Mer Bleue Sector

Legend

- Core Natural Area
- Natural Link
- Agriculture
- Federal Facility & Operations
- Non-Federal Facility & Operations
- Transportation Route
- Addition
- Removal
- Special Study Area
- Built Area
- A Management Action
- View
- Visitor Destination
- P NCC Parking Lot
- NCC Recreational Pathway
- NCC Hiking Trail
- Forest Access Road
- Streams & Creeks
- River
- Lake
- Pond
- Swamp Area
- Flooded Area
- Sector Limits

• Greenbelt Overview •



Map 4
Reproduced from NCC, *Greenbelt Master Plan* (2013)

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Appendix A: Cultural Heritage Checklist

Cultural Heritage Checklist	
Conforming to the Ontario Ministry of Tourism Culture and Sport *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*	
Project or Property Name:	Hydro One Orléans Area Reinforcement
Project or Property Location:	Geographic Township of Gloucester, Former County of Carleton, City of Ottawa: • Part Lots 8 to 14, Concession 3 Ottawa Front; • Part Lots 14 to 20, Concession 4 Ottawa Front; • Part Lot 1, Concession 6 Rideau Front; • Part Lots 1 to 7 and 11, Concession 3 Ottawa Front; • Part Lots 1 and 2, Concession 6 Rideau Front; • Renaud Road Allowance, Concession 3 Ottawa Front,; • Road Allowance at Lots 14 and 15, between Concessions 3 and 4 Ottawa Front; • Anderson Road Allowance between Lots 15 and 16, Concession 4 Ottawa Front; • Ramsayville Road Allowance, Lot 1, between Concession 6 Rideau Front and Concession 4 Ottawa Front; And Geographic Township of Cumberland, Former County of Carleton, City of Ottawa • Part Lots 1 and 2, Concession 11
Proponent Name:	Dillon Consulting Limited
Proponent Contact Information:	Alissa Lee Dillon Consulting Limited 177 Colonnade Road, Suite 101 Ottawa, Ontario K2E 7J4 alee@dillon.ca

Screening Questions	Yes/No
1. Is there a pre-approved screening checklist, methodology or process in place (municipal or provincial)?	No.
If Yes, please follow the pre-approved screening checklist, methodology or process. If No, continue to Question 2.	No.
Part A: Screening for known (or recognized) Cultural Heritage Value	
2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?	No.
If Yes, the rest of this checklist will not be completed. The proponent, property owner and/or approval authority will:	

• summarize the previous evaluation and • add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken The summary and appropriate documentation may be: • submitted as part of a report requirement • maintained by the property owner, proponent or approval authority If No, continue to Question 3.	
3. Is the property (or project area):	
a. identified, designated or otherwise protected under the Ontario Heritage Act as being of cultural heritage value?	No.
b. a National Historic Site (or part of)?	No.
c. designated under the Heritage Railway Stations Protection Act?	No.
d. designated under the Heritage Lighthouse Protection Act?	No.
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	No.
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	No.
If Yes to any of the above questions: • a Cultural Heritage Evaluation Report is required, if a Statement of Cultural Heritage Value has not previously been prepared, or the statement needs to be updated If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed: • a Heritage Impact Assessment (HIA) is required – the report will assess and avoid, eliminate or mitigate impacts If No, continue to Question 4.	

Part B: Screening for Potential Cultural Heritage Value	
4. Does the property (or project area) contain a parcel of land that:	
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	The Mer Bleue Bog area contains interpretive plaques.
b. has or is adjacent to a known burial site and/or cemetery?	No.
c. is in a Canadian Heritage River watershed?	No.
d. contains buildings or structures that are 40 or more years old?	Yes. See section 3.0
Part C: Other Considerations	
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):	
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	Yes. The Greenbelt can be considered both as a landmark and as important in defining the character of the area.
b. has a special association with a community, person or historical event?	The Greenbelt is associated with the Gréber Plan
c. contains or is part of a cultural heritage landscape?	Yes. See section 3.3.4.1
If Yes to one or more of the questions in Parts B and C, there is potential for cultural heritage resources on the property or within the project area. The following must be undertaken: • a Cultural Heritage Evaluation Report (CHER) If the property is determined to be of cultural heritage value and alterations or development is proposed: • a Heritage Impact Assessment (HIA) is required – the report will assess and avoid, eliminate or mitigate impacts	

Appendix B-3

Natural Environment Existing Conditions Technical Report

DILLON CONSULTING

HYDRO ONE NETWORKS INC.

Natural Environment Existing Conditions Technical Report

Orléans Area Reinforcement Project

October 2025 – 24-8296

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Acronyms and Abbreviations

Class EA	Class Environmental Assessment
Dillon	Dillon Consulting Limited
DFO	Fisheries and Oceans Canada
EA Act	*Environmental Assessment Act*
ELC	Ecological Land Classification
FLUDTA	Federal Land Use, Design and Transaction Approval
FOIBIS	Flora Ontario – Integrated Botanical Information System
ha	hectare(s)
Hydro One	Hydro One Networks Inc.
IAA	*Impact Assessment Act*
km	kilometre(s)
kV	kilovolt(s)
LSA	Local Study Area
MNR	Ministry of Natural Resources or Ministry of Natural Resources and Forestry
NCC	National Capital Commission
NHIC	Natural Heritage Information Centre
PSA	Project Study Area
ROW	right-of-way
SAR	Species at Risk
SCC	Species of Conservation Concern
SWH	Significant Wildlife Habitat
TS	Transmission Station
UTM	Universal Transverse Mercator

1.0 Introduction

Hydro One Networks Inc. (Hydro One) is Ontario's largest electricity transmission and distribution service provider; energizing life in Ontario for over 110 years. The City of Ottawa, including the Orléans area is expected to experience substantial growth over the coming decades. To meet the electricity demands for a growing population, Hydro One is proposing to convert an existing 115 kilovolt (kV) circuit to 230 kV and construct a new 115 kV circuit from the existing Hawthorne Transmission Station (TS) to the existing Orléans TS within an existing hydro corridor. Hydro One is calling this undertaking the Orléans Area Reinforcement Project (the Project).

The Project will include the following:

- A new approximately 12-kilometre (km) 115 kV transmission line (wood, composite or steel);
- Conversion of an existing 115 kV transmission line to 230 kV;
- A new 44 kV yard and feeder egress at the Hawthorne TS; and
- A new 230 kV autotransformer at the Orléans TS.

The proposed new transmission line will be located within Hydro One's existing transmission line corridor between Hydro One's Hawthorne TS and Orléans TS. The majority of the new transmission line would consist of double-pole structures in an 'H' configuration. Modifications to station equipment inside Hawthorne TS and Orléans TS are required to accommodate the increased capacity.

The Project is located on both provincially and federally regulated lands (**Appendix A - Figure 1**[1]). Approximately 5 km of the Project is located on provincially regulated lands and is subject to the Class Environmental Assessment (Class EA) for Transmission Facilities (Hydro One, 2024). This assessment is an approved planning process under the *Environmental Assessment Act* (*EA Act*) (R.S.O. 1990, c. E.18) designed for proponents to characterize the existing environment, assess potential environmental effects and mitigation, identify and evaluate alternatives, conduct consultation, and document study findings. Approximately 7 km of the Project is on lands that are owned and regulated by the National Capital Commission (NCC), and these lands are not included in the scope of this report. Dillon Consulting Limited (Dillon) has prepared this Natural Environment Existing Conditions Technical Report in support of the provincial Class EA being undertaken for the Project. An Ecological Characterization Report has been prepared under separate cover for the portion of the Project on federal lands that is subject to approval from the NCC.

[1] All figures herein are referenced in **Appendix A**.

This report provides a summary of the natural environment existing conditions, under provincial jurisdiction, associated with the Project based on a review of existing literature and datasets, as well as the results from the 2024 and 2025 natural environment field program. The assessments conducted as part of this Natural Environment Existing Conditions Technical Report will be used to help identify potential impacts on the natural environment resulting from the Project. The 2024 and 2025 natural environment field program included a roadside "windshield" survey (i.e., reconnaissance site assessment), Ecological Land Classification (ELC) surveys, single-season botanical assessment, fish and fish habitat assessments, breeding bird surveys, incidental wildlife observations, and delineation of significant wildlife habitat (SWH) and species at risk (SAR) habitat. Amphibian call count surveys did not proceed due to the absence of suitable habitat.

1.1 Station and Route Alternatives

Project works will mainly be conducted within the existing stations and the existing hydro corridor to minimize construction impacts. There is a minor deviation from the existing corridor where approximately 900 m of new 230 kV transmission line exits the Hawthorne TS and travels to just east of Highway 417 to connect to the existing circuit being upgraded to 230 kV. No other alternatives were considered feasible due to the potential for greater environmental impacts associated with the construction of a new hydro corridor.

1.2 Study Area

At the outset of the Class EA, two study areas (Project Study Area and Local Study Area) were identified to consider potential environmental features and potential effects associated with the Project (**Figure 1**).

The Project Study Area (PSA) was delineated to include lands within 120 m of the proposed route centre line. The PSA encompasses the proposed length of the transmission line from the Hawthorne TS to the Orléans TS. The purpose of the assignment of a PSA was to determine an area that would encompass the future asset location, associated right-of-way (ROW) and abutting/directly adjacent lands such that technical studies and field investigations for the purposes of documenting baseline existing conditions could be appropriately scoped and planned. The PSA is where direct effects may occur along the periphery of the ROW and where indirect effects, such as temporary nuisance, are more pervasive. Baseline conditions within the PSA are described in this report.

The Local Study Area (LSA) was delineated to include lands within 500 m of the proposed route centre line. The LSA encompasses the proposed length of the transmission line from the Hawthorne TS to the Orléans TS. In the context of this report, the LSA encompasses the area where indirect effects of the Project may occur on the natural environment.

Field assessments were conducted within the PSA in accordance with the methods outlined in the Summary of Planned Natural Environment Surveys document that was prepared for Indigenous communities (**Appendix B**). The Summary of Planned Natural Environment Surveys document was developed following a preliminary desktop records review to identify the presence of known natural features within the PSA. It outlines the survey methods for both the provincially and federally regulated lands within the PSA.

1.3 Class EA Consultation Process – Consideration of Publicly Provided Observations and Historical Occurrence Records

As part of the Class EA consultation process, Indigenous communities, stakeholders, property owners and members of the public have an opportunity to provide feedback to Hydro One. In this case, the consultation process yielded no natural environment information in relation to the provincially-regulated portion of the Project.

2.0 Methods

2.1 Background Review

In advance of the natural environment field program, a background desktop review was completed to identify the potential presence of designated natural features, general wildlife known to the area, candidate SWH, and occurrence records of SAR within the PSA. On November 8, 2024, a windshield survey was conducted to substantiate (at a high level) the existing conditions identified within the PSA during the background review. This information was used as baseline data to assist in scoping the 2025 natural environment field program.

Publicly available online resources were used during the background desktop review to identify natural heritage features and potential wildlife habitat within the PSA, including:

- Woodlands;
- Valleylands;
- Areas of Natural and Scientific Interest;
- Wetlands;
- Aquatic features;
- Fish habitat;
- Significant Wildlife Habitat; and,
- Species at Risk.

Resources used during the background review are provided in **Appendix C** – **Table C-1**.

2.2 Field Program

The following field investigations were conducted as part of the 2025 field program:

- Fish and fish habitat assessments;
- ELC surveys;
- Botanical assessments;
- Breeding bird surveys;
- Significant Wildlife Habitat; and,
- Species at Risk.

The PSA spans a combination of private and public properties. Where private property access was granted for the field program, lands were traversed[2] on foot to access natural features overlapping with the PSA. Where property access was not permitted, field data was collected from the limits of the adjacent road ROW, Hydro One's existing transmission corridor, and/or from adjacent property limits with land access agreements in place. Field data that could not be obtained or verified through direct observations due to restricted property access and/or lack of proximity to the natural feature through adjacent access were conservatively assumed to provide Candidate SWH and/or potential SAR habitat if a supporting natural feature was identified through aerial imagery interpretation.

During the field program, Environmental Monitors from the Algonquins of Ontario often accompanied Dillon staff to monitor the execution of field surveys.

2.2.1 Windshield Survey

The windshield survey consisted of driving within the PSA and vicinity to substantiate (at a high level) the existing conditions identified within the PSA during the desktop review. The windshield survey verified the presence and extent (if feasible) of mapped natural environment features identified during the desktop review. The results of the windshield survey also informed the scoping of the 2025 field investigations.

2.2.2 Fish and Fish Habitat Assessment

Following the completion of the desktop review, watercourses and drains mapped by the Ministry of Natural Resources (MNR), Fisheries and Oceans Canada (DFO), and local municipal datasets were identified in the PSA. During the windshield survey and early 2025 surveys, watercourses were briefly assessed to determine their potential to support fish. Fish and fish habitat assessments for those watercourses and drains with potential to support fish populations were subsequently conducted in the summer. Fish and fish habitat assessments generally focused on areas within the hydro corridor. Three surveys were completed at each watercourse to accurately document the fish habitat and general watercourse characteristics. Survey extents included approximately 100 m upstream and 100 m downstream, generally in areas within or near the hydro corridor.

Watercourses and drains were assessed by classifying stream geomorphology, in-stream and riparian vegetation, substrate type, bank stability, as well as the presence of groundwater indicators (e.g., iron staining, bank seepage, presence of watercress). Observations of fish were also documented. General information gathered during aquatic assessments included the date of sampling, coordinates, and digital photographs.

[2] Dillon accessed lands within legally identified property boundaries only, where land access agreements were in place.

2.2.3 Ecological Land Classification (ELC)

Vegetation communities were characterized using the ELC System for Southern Ontario (Lee et. al., 1998, 2008). Vegetation community boundaries were determined through review of aerial imagery, and then verified and refined on-site, where property access was permitted. Where access was not permitted, assessments of botanical communities were performed as roadside surveys, from adjacent lands where access had been permitted, and/or a detailed review of aerial mapping.

ELC was used to map ecological communities to the community, ecosite, or vegetation level, where practical. Vegetation studies involved identifying the dominant species in each vegetation community type based on visual estimates of species abundances and biomass. All vegetation communities were identified using second approximation classifications. Species nomenclature is based on the Ontario Plant List (Newmaster *et al*., 1998) with updates from the Flora Ontario – Integrated Botanical Information System (FOIBIS, 2005). In addition, a search of the MNR's Natural Heritage Information Centre (NHIC) database was conducted to identify potential significant species. Areas of anthropogenic uses (i.e., agriculture, transportation, and residential properties) were also mapped to provide a complete account of existing conditions within the PSA.

2.2.4 Botanical Assessments

Botanical assessments were completed concurrently with the ELC surveys. Vegetation surveys were conducted in summer growing conditions (i.e., between June and August). If encountered, the location and abundance of botanical Species of Conservation Concern (SCC) and/or SAR were documented and photographed, and UTM coordinates were recorded. No targeted species-specific plant surveys were completed.

2.2.4.1 Invasive Species

Presence of invasive species were documented as part of the vegetation surveys.

2.2.5 Breeding Bird Surveys

Diurnal breeding bird surveys conducted within the PSA followed the methods outlined in the Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada, 2021). A total of three surveys were completed. Specifically, surveys consisted of 10-minute point counts generally conducted between dawn and five hours after sunrise. These surveys were used to establish quantitative estimates of bird abundance in suitable habitat types within the PSA. During the surveys, evidence of breeding behaviour was recorded, which generally includes, but is not limited to, males singing, nest building, egg incubation, territorial defence, carrying food, and feeding their young. Weather conditions such as wind speed, direction, and temperature were recorded for each survey.

2.2.6 Significant Wildlife Habitat

Candidate and/or confirmed SWH was assessed, and mapped where applicable, following criteria outlined in the Ecoregion 6E Criterion Schedule (MNR, 2015) and the Significant Wildlife Habitat Technical Guide (MNR, 2000). These assessments were based on the results of other surveys (such as ELC, breeding bird surveys, etc.), as well as incidental wildlife observations.

2.2.7 Species at Risk

SAR with the potential to be present were surveyed for presence. Assessments for habitat that could support SAR life processes were also completed to determine potential presence. Where these species were confirmed to be present, their locations were mapped. These assessments were based on the results of other surveys (such as ELC, amphibian breeding surveys, breeding bird surveys, etc.), as well as incidental wildlife observations.

3.0 Results

3.1 Background Review Results

3.1.1 Woodlands

Woodlands that intersect the PSA were identified through the review of Geospatial Ontario (MNR) mapping. 'Natural Heritage Features' are also mapped by the City of Ottawa (Official Plan, Schedule C11 – Natural Heritage System East) and may represent woodlands[3]. The City of Ottawa Official Plan Schedule C11 does not individually map significant woodlands; therefore, mapping is not available of significant woodlands that may intersect with the PSA.

Fourteen MNR-identified woodlands intersect with the proposed route and are shown on **Figure 2**.

3.1.2 Valleylands

Valleylands that intersect with the PSA were identified through the review of aerial imagery and topographic mapping. 'Natural Heritage Features' are mapped by the City of Ottawa (Official Plan, Schedule C11 – Natural Heritage System East) and may represent valleylands[3]. The City of Ottawa Official Plan Schedule C11 does not individually map significant valleylands, therefore mapping is not available of significant valleylands that may intersect with the PSA.

Based on this review, a single valleyland is present along Mud Creek, as shown on **Figure 2**.

3.1.3 Areas of Natural and Scientific Interest

There are no Areas of Natural and Scientific Interest that intersect with the PSA as identified through the review of Geospatial Ontario (MNR) mapping.

3.1.4 Wetlands

There are no Provincially Significant Wetlands identified in the PSA through the review of Geospatial Ontario (MNR) mapping.

Fourteen MNR-identified unevaluated wetlands intersect with the proposed route and are shown on **Figure 2**.

---

[3] 'Natural Heritage Features' are defined in the City of Ottawa Official Plan (2021), Section 4.8.3. They include significant wetlands, habitat for endangered and threatened species, significant woodlands, significant valleylands, significant wildlife habitat, Areas of Natural and Scientific Interest, urban natural features, natural environment areas, natural linkage features and corridors, groundwater features, surface water features including fish habitat, and landform features.

3.1.5 Watercourses

Watercourses are present within the PSA, including two named watercourses: Ramsay Creek and Mud Creek.

Eight MNR mapped (Ontario Hydro Network) watercourses intersect with the transmission line corridor and are shown on **Figure 2**. Of these, six are identified by the MNR as permanent watercourses, and two are identified as intermittent watercourses.

3.1.6 Significant Wildlife Habitat

Based on a review of the Ontario Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNR, 2015a) and the Significant Wildlife Habitat Technical Guide (MNR, 2000), Candidate SWH has the potential to occur within the PSA.

Based on the background review, the following Candidate SWH have the potential to occur within the PSA.

- Seasonal Concentration Areas of Animals, including:
  - Raptor Wintering Area;
  - Bat Maternity Colonies;
  - Turtle Wintering Areas;
  - Reptile Hibernaculum; and,
  - Colonially Nesting Bird Breeding Habitat (Bank and Cliff).
- Specialized Habitat for Wildlife, including:
  - Bald Eagle and Osprey nesting, Foraging and Perching Habitat;
  - Woodland Raptor Nesting Habitat;
  - Turtle Nesting Areas;
  - Seeps and Springs; and
  - Woodland Area-Sensitive Bird Breeding Habitat.
- Habitats of Species of Conservation Concern, including:
  - Shrub/Early Successional Bird Breeding Habitat; and
  - Special Concern and Rare Wildlife Species (see **Appendix C** – **Table C-2**).

An assessment of Candidate SWH following the completion of the field program is further discussed in **Section 3.3**.

3.1.7 Species at Risk

Seventeen SAR were identified during background review as being known to occur, or having the potential to occur, within the LSA (**Appendix C** – **Table C-3**).

No aquatic SAR records for the PSA were identified by DFO aquatic SAR mapping.

A search for SAR and a field review of suitable habitat for these SAR was conducted during the 2025 field program. Results of this assessment, and SAR/SAR habitat observed in the PSA during the field program are further discussed in **Section 3.4**.

3.2 Field Program Results

Dates and weather associated with the field program are outlined in **Appendix C** – **Table C-4**, which outlines the specific field studies conducted at each survey location within the PSA. Survey stations are illustrated on **Figure 3**.

The results of the field surveys are summarized in the following subsections.

3.2.1 Windshield Survey

The windshield survey was completed on November 8, 2024, and confirmed the mapped natural heritage features through MNR mapping (woodlands, wetlands, watercourses) were generally consistent with background mapping obtained through desktop review.

3.2.2 Fish and Fish Habitat Assessment

Fish and fish habitat assessments were completed at two (2) watercourse features, Ramsay Creek and Mud Creek, within the PSA during the 2025 field program. Survey locations are shown on **Figure 3**. Results are provided in **Appendix D** – **Table D-1**.

Results include observations of fish habitat and general watercourse characteristics that were made during aquatic assessments. Both watercourses were determined to support fish (based on direct observation of fish) or are highly likely to support fish. Note that Ramsay Creek occurs in both federally and provincially regulated land in the PSA with the assessment having occurred in both areas. To present a more fulsome picture of the watercourse, data from the entire reach has been included.

3.2.3 Ecological Land Classification (ELC)

A breakdown of the combined area in hectares (ha) for each ELC community observed within the PSA is provided below in **Table 3-1**. None of the ELC communities are provincially rare. ELC mapping is shown on **Figure 4**.

Table 3-1: ELC Communities Identified within the Project Study Area

ELC Community	Area (ha) within PSA	Description
NATURAL AND NATURALIZED COMMUNITIES		
Forest Community Types		
FOD *Deciduous Forest*	0.43	This community is located on the south side of Brian Coburn Boulevard, east of Pagé Road. This area was not accessed and was interpreted using aerial imagery.
FOM *Mixed Forest*	0.45	This community is located directly east of Highway 417 in the southern portion of the PSA. The community could not be accessed; however, both coniferous and deciduous trees, including Manitoba Maple (*Acer negundo*), White Spruce (*Picea glauca*), American Larch (*Larix laricina*), and Eastern White Pine (*Pinus strobus*), were identified from a distance.
FOMM2-2 *Dry – Fresh White Pine – Hardwood Mixed Forest*	2.85	This community is located at the corner of Brian Coburn Boulevard and Navan Road. The community was observed to have Mud Creek running through the center of the community in a valley, flowing southwest. The community was observed to be a mature forest. In the canopy layer, Red Maple (*Acer rubrum*), Sugar Maple (*Acer saccharum*), and Eastern White Pine were observed being equally abundant, with Paper Birch (*Betula papyrifera*) and Eastern White Pine occurring occasionally. In the sub-canopy layer, Sugar Maple was dominant, with American Beech (*Fagus grandifolia*) and Eastern White Cedar (*Thuja occidentalis*) occurring occasionally. The ground cover layer was dominated by Wood Fern (*Dryopteris spp.*) and abundant Bush Honeysuckle (*Diervilla lonicera*) occurring on the upland ridges.
Woodland Community Types		
WODM5 *Fresh-Moist Deciduous Woodland Ecosite*	8.76	Three units of this community are located east of Pagé Road. They are dominated by Large-tooth Aspen (*Populus grandidentata*), Sugar Maple, Trembling Aspen (*Populus tremuloides*), Basswood (*Tilia americana*), and Pine (*Pinus spp.*). Access to the area was restricted by fencing.
WODM5-1 *Fresh – Moist Poplar Deciduous Woodland*	10.09	This community is located east of Pagé Road. This community is located on private land with no access permission. This community was assessed from an adjacent property. In the canopy layer, Trembling Aspen was dominant. In the sub-canopy layer, Trembling Aspen was dominant, with some Manitoba Maple and Green Ash (*Fraxinus pennsylvanica*) also present. The understory and ground layer could not be assessed due to access constraints.
WOM *Mixed Woodland Ecosite*	0.18	This community is located at the east end of Hydro Road. It is dominated by Trembling Aspen, Manitoba Maple, Norway Spruce (*Picea abies*), and Scot's Pine (*Pinus slyvestris*).

ELC Community	Area (ha) within PSA	Description
WOMM3 *Dry-Fresh Mixed Woodland Ecosite*	0.15	This community is located west of Highway 417.
Thicket Community Types		
THD *Deciduous Thicket*	0.27	Thicket community based on aerial imagery, no access.
THM *Mixed Thicket*	3.86	This community is located west of Navan Road. It is dominated by Spruce (*Picea spp.*), Eastern White Pine, and Aspen (*Populus spp.*).
THDM2 *Deciduous Shrub Thicket*	11.51	A few units of this community are located in the west end of the PSA near Hawthorne TS, in proximity to the hydro lines, rail tracks, and trail. There was no vegetation in the canopy or sub-canopy layers. The understory was dominated by Meadow Willow (*Salix petiolaris*) and Trembling Aspen saplings. The ground layer was dominated by Reed Canary Grass (*Phalaris arundinacea*), Purple Loosestrife (*Lythrum salicaria*), Canada Goldenrod (*Solidago canadensis*), and Common Milkweed (*Asclepias syriaca*). Other units are variable, and include species such as Willow (*Salix spp.*), Honeysuckle (*Lonicera spp.*), European Buckthorn (*Rhamnus cathartica*), and Hawthorn (*Crataegus spp.*). A unit of this community is also located east of Mer Bleue Road.
Meadow Community Types		
MEMM3 *Dry – Fresh Mixed Meadow*	18.60	This community is located west of Pagé Road. Vegetation is absent in the canopy, sub-canopy, and understory layers. The ground layer is dominated by Black-eyed Susan (*Rudbeckia hirta*), Wild Carrot (*Daucus carota*), Evening Primrose (*Oenothera sp.*), and Grass species. The community grades into a young Aspen thicket at the west end. An additional MEMM3 community is present at the eastern end of Hydro Road. It is dominated by Lesser Burdock (*Arctium minus*), Canada Goldenrod, Reed Canary Grass, and Wild Carrot. An additional MEMM3 community is present east of Renaud Road. An additional MEMM3 community is present east of Mer Bleue Road. This meadow has pockets of invasive Common Reed/Phragmites (*Phragmites australis ssp. australis*).
MEMM3 / THDM2 Complex *Dry – Fresh Mixed Meadow / Deciduous Shrub Thicket Complex*	27.18	This community is located east of Pagé Road.

ELC Community	Area (ha) within PSA	Description
MEMM4 *Fresh-Moist Mixed Meadow*	2.47	This community is located east of Mer Bleue Road.
Aquatic Community Types		
OAO *Open Aquatic*	2.63	Stormwater ponds east of Page Road.
SAM *Mixed Shallow Aquatic*	0.47	Ramsay Creek and Mud Creek. Two watercourses that were assessed for fish habitat.
CULTURAL COMMUNITIES		
CGL *Constructed Green Lands*	0.52	This community is located east of Pagé Road. Former golf driving range, overgrown meadow.
CVR *Residential*	9.58	Homes and residential neighbourhoods.
CVC *Commercial and Institutional*	6.75	Businesses and commercial buildings.
CVI *Transportation and Utilities*	2.92	A cellular tower facility is located west of Navan Road.
CVI_1 *Transportation*	10.12	Roads that are present within the PSA.
CVI_4 *Power Generation*	6.50	Includes the Hawthorne TS and Orléans TS.

3.2.4 Botanical Assessments

During the ELC surveys, vascular plant species observed in each community were documented throughout the PSA. The botanical assessment included visual estimates of species abundances and composition. A total of 50 plant species were recorded in the PSA during the ELC and botanical surveys.

Of the 50 plant species observed, 47 species were identified to the species level, while 3 were identified to genus level. Of the 47 species identified:

- None are Species at Risk;
- None are provincially rare (i.e., SRank of S1 to S3); and
- None have a Co-efficient of Conservatism (CC) value of 7 or higher (typical of species that may be more susceptible to disturbance).

Refer to **Appendix F** for a full list of the botanical species observed.

The results of the ELC and botanical assessments were used in the assessment for SWH within the PSA, as further discussed in **Section 3.3**.

3.2.4.1 Invasive Species

The Invasive Priority for Control represents the threat level to Ontario botanical communities, which provides additional information on the nature of the botanical communities within the PSA. The Invasive Priority Control values range between Category 1 (C1; Top priority) and Category 5 (C5; Potential Invasive Species) (Ontario Invasive Plant Council, 2013). The invasive species identified during the field program belong to three categories of control, including:

- Category 1 (C1) – widespread invasive species that are top priority for control;
- Category 2 (C2) – less widespread invasive species that are medium priority; and
- Category 4 (C4) – species to watch that spread locally or regionally but have minimal effects on biodiversity.

Table 3-2 details the nine invasive species that were observed within the PSA.

Table 3-2: Invasive Priority for Control Category for Invasive Species Observed within the PSA

Scientific Name	Common Name
CATEGORY 1	
Frangula alnus	Glossy Buckthorn
Lythrum salicaria	Purple Loosestrife
Melilotus albus	White Sweet-clover
Phalaris arundinacea	Reed Canary Grass

Scientific Name	Common Name
Phragmites australis ssp. australis	European Common Reed
CATEGORY 2	
Acer negundo	Manitoba Maple
Poa pratensis ssp. Pratensis	Kentucky Bluegrass
Tussilago farfara	Colt's-foot
CATEGORY 4	
Daucus carota	Wild Carrot

Physical site disturbance may increase the likelihood of the introduction and spread of non-native and/or invasive flora species to the surrounding vegetation communities. Invasive flora can establish in disturbed sites more efficiently than native flora and can then encroach into adjacent undisturbed and/or more sensitive areas. Appropriate mitigation measures are recommended during construction to control the spread and introduction of invasives as a mechanism to maintain ecological integrity within the area.

3.2.5 Breeding Bird Surveys

Diurnal breeding bird surveys were completed at four (4) point count locations within the PSA. A total of 24 bird species were observed (**Appendix C** – **Table C-5**). Twenty-three (23) of the 24 species observed are considered Secure (SRank of S5) or Apparently Secure (SRank of S4) by the province. One species, European Starling (*Sturnus vulgaris*), is non-native and; therefore, not considered a suitable target for conservation activities (SRank of SNA). None of the species recorded are provincially rare or SAR.

The results of the breeding bird surveys were used in the assessment for SWH within the PSA, as further discussed in **Section 3.3**. Point count locations are displayed on **Figure 3**.

3.2.6 Incidental Wildlife Observations

Two (2) additional wildlife species and/or their evidence were incidentally observed within the PSA during the field program (**Appendix C** – **Table C-6**).

Coyote scat was observed. Coyote is considered Secure (SRank of S5) in the province.

Monarch was observed. Monarch is a provincial species of Special Concern and is discussed further in **Section 3.3**.

Incidental wildlife observations made during the field program were used to characterize potential Candidate SWH and/or SAR habitat within the PSA (**Section 3.3** and **Section 3.4**, respectively).

3.3 Significant Wildlife Habitat

Based on the results of the field program, although no Confirmed SWH was observed, the following Candidate SWH was identified in the PSA:

- Raptor Wintering Area;
- Bat Maternity Colonies;
- Turtle Wintering Areas;
- Reptile Hibernaculum; and
- Special Concern and Rare Wildlife Species

Areas of Candidate SWH are illustrated on **Figure 5**.

The SWH Ecoregion 6E Criterion Schedules (MNR, 2015) and a discussion of the potential occurrence of each SWH within the PSA is provided in **Appendix G**. The different types of Candidate SWH are further discussed in the following subsections.

3.3.1 Seasonal Concentration Areas of Animals

3.3.1.1 Raptor Wintering Area

Candidate SWH is present in association with forest, woodland, thicket, meadow, and agricultural communities within the PSA.

3.3.1.2 Bat Maternity Colonies

Candidate SWH is present in association with the deciduous and mixed forest communities. Bat acoustic surveys and/or snag density calculations have not been conducted.

3.3.1.3 Turtle Wintering Areas

Ramsay Creek and Mud Creek support Candidate SWH for turtle wintering areas.

3.3.1.4 Reptile Hibernaculum

Candidate SWH is present in association with most of the PSA given that reptile hibernacula may be found in any ecosite other than very wet ones. Open aquatic and cultural vegetation communities are excluded from Candidate SWH for reptile hibernaculum.

3.3.2 Habitat for Species of Conservation Concern

3.3.2.1 Special Concern and Rare Wildlife Species

During field investigations, the 22 Special Concern and rare species (commonly known as Species of Conservation Concern [SCC]) identified in the background review were assessed for their potential to occur within the PSA (see **Section 3.1.6** and **Appendix C** – **Table C-2**):

- Candidate SWH was identified for eleven (11) species in the PSA based on suitable habitat; and
- SWH was deemed absent based on the lack of species observations and suitable habitat in the PSA for eleven (11) species.

Candidate SWH Identified

One (1) species of SCC insect was confirmed to be present during field investigations. Monarch, a species of Special Concern, was recorded west of Highway 417. One adult was observed on June 23, 2025 in a disturbed open area adjacent to a road and below hydro lines, in an area that is subject to vegetation control to reduce the height of vegetation. As the Monarch was an adult flying over the habitat and not interacting with it (e.g., not laying eggs, or nectaring on flowering plants) and as the habitat is anthropogenic, no SWH is confirmed. Since suitable habitat is present within the PSA that could support larval development and provide nectaring opportunities (e.g., meadows, and any areas supporting Milkweed), and since targeted surveys for Monarch have not been completed, candidate SWH for Monarch has been identified.

Four (4) SCC turtle species were identified during the background review: Eastern Musk Turtle (*Sternotherus odoratus*), Midland Painted Turtle (*Chrysemys picta marginata*), Northern Map Turtle (*Graptemys geographica*), and Snapping Turtle (*Chelydra serpentina*). While targeted surveys were not completed, none of these species were recorded incidentally during the field investigations. No wetlands, natural ponds, or lakes were identified during field investigations. However, stormwater ponds and watercourses are present that may support turtles. Turtles may nest in exposed mineral soil near their aquatic habitat and may move across terrestrial habitat between aquatic habitat features. There is potential for SCC turtles to be present in watercourses and stormwater ponds within the PSA. There is also potential for SCC turtles to occur in terrestrial habitat in proximity to these aquatic features within the PSA (e.g., during nesting season, while moving between aquatic habitats).

Two (2) SCC snake species were identified during the background review: Eastern Ribbonsnake (*Thamnophis sauritus*), and Milksnake (*Lampropeltis triangulum*). While targeted surveys were not completed, neither of these species were recorded incidentally during the field investigations. These is potential for Eastern Ribbonsnake to be present in suitable habitat (i.e., along watercourses within the PSA) and potential for Milksnake to be present in suitable habitat (i.e., most areas of the PSA including farmland, meadow, and woodland).

Arrowhead Spiketail (*Cordulegaster obliqua*), a dragonfly, was identified during the background review. It is found in and around shallow forest streams that are often ephemeral, clean, and stable. Targeted surveys were not completed, and this species was not recorded incidentally during the field investigations, however there is potential for this species to be present in the PSA.

Three (3) SCC lichens identified during the background review: A Lichen (*Steinia geophana*), Cupped Fringe Lichen (*Heterodermia hypoleuca*), and Blistered Jellyskin (*Leptogium corticola*). Targeted surveys were not completed, and none of these were recorded incidentally during the field investigations, however, there is potential for all three species to be present in the PSA.

Steinia geophana, a lichen, is a colonizer of short-lived and transient niches including disturbed soil, bones, decaying wood, or other mosses. There is an occurrence record near Ottawa under a hydro transmission line (NHIC, 2025). There is potential for this species to be present in the PSA.

Cupped Fringe Lichen is found on hardwood trees such as Ash (*Fraxinus spp.*), Elm (*Ulmus spp.*), Maple (*Acer spp.*), and Oak (*Quercus spp.*), as well as on rock. It is known from mature to old-growth forest stands, where it prefers openings in deciduous or mixed swamps with humid microclimates. Recent records are mainly on Ash trees (NHIC, 2025). No swamp habitat is present in the PSA. While there is some forest habitat present, the forests are dry-fresh, and do not support the humid microclimate this species prefers. Therefore, though there is some limited potential to be present, this species is unlikely to occur within the PSA.

Blistered Jellyskin, a lichen, is found in moist woods on the base of hardwoods and rock. While there is some forest habitat present, the forests are dry-fresh, and do not support the humid microclimate this species prefers. Therefore, though there is some limited potential to be present, this species is unlikely to occur within the PSA.

No SWH Identified

Of the four (4) SCC bird species identified during the background review: Barn Swallow (*Hirundo rustica*), Eastern Wood-pewee (*Contopus virens*), Grasshopper Sparrow (*Ammodramus savannarum*), and Wood Thrush (*Hylocichla mustelina*), none of these were recorded during breeding bird surveys, or incidentally during other field surveys. Based on the results of the field investigations, habitat is considered absent for these species in the PSA.

Four (4) SCC vascular plant species were identified during the background review: Blood Red Milkwort (*Polygala sanguinea*), Northern Long Sedge (*Carex folliculata*), Southern Twayblade (*Neottia bifolia*), and Woodland Pinedrops (*Pterospora andromedea*). None of these species were recorded during botanical surveys, or incidentally during other field surveys. Based on the results of field investigations, habitat is considered absent for these species in the PSA.

One (1) SCC frog species was identified during the background review: Western Chorus Frog (*Pseudacris triseriata*). While targeted surveys were not completed, this species was not recorded incidentally during the field investigations. No wetlands or other suitable breeding habitat for Western Chorus Frog were identified during the field investigations. Based on the results of field investigations, habitat is considered absent for this species in the PSA.

One (1) SCC moss species, Lurking Leskea Moss (*Plagiothecium latebriocola*) grows on rotting stumps and sedge and fern tussocks in deciduous swamps and marshes that flood seasonally. Targeted surveys for non-vascular plant species were not completed, and this species was not recorded incidentally during the field investigations. Since no wetland habitat is present in the PSA, this species is considered to be absent.

Elusive Clubtail (*Stylurus notatus*), a dragonfly, was identified during the background review. It is found in and around large, clear, sandy or gravelly rivers that are large and clean, and with a slow to moderate current. Targeted surveys were not completed, and this species was not recorded incidentally during the field investigations. Large rivers are absent within the PSA. Based on the results of field investigations; habitat is considered absent for this species in the PSA.

3.4 Species at Risk

Sixteen (16) SAR protected under the Ontario *Endangered Species Act* (i.e., provincially Endangered or Threatened only) were identified as part of the desktop review as having the potential to occur in the PSA (**Section 3.1.7**).

No SAR were observed during the field investigations.

Though potential habitat is present for Bank Swallow, Chimney Swift, Red-headed Woodpecker, Butternut, and Black Ash, none of these species were observed during the field surveys.

Potential habitat is present for eight (8) SAR:

- SAR bats (seven species); and
- Gray Fox.

Descriptions of suitable habitat for each of these SAR are discussed in the following subsections.

3.4.1 SAR Bats (Eastern Red Bat, Eastern Small-footed Myotis, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, Tri-coloured Bat)

Targeted surveys for SAR bats and bat habitat (e.g., SAR acoustic call surveys, exit surveys, cavity tree assessments) were not conducted as part of the 2025 field program. SAR bats were not observed incidentally during the 2024 and 2025 field surveys. However, indicators of bat habitat were observed, including potential maternity and day roost tees, as well as foraging habitat. No overwintering habitat was observed and/or is believed to be present within the PSA.

All seven species have similar habitat requirements, typically roosting in/within tree foliage, and foraging for insects over terrestrial, wetland, and aquatic habitat. Some species also roost in buildings and rock outcrops. There is a high likelihood that SAR bats are present in the PSA.

3.4.2 Gray Fox

Targeted surveys for Gray Fox (e.g., deployment of wildlife cameras) were not conducted as part of the 2025 field program. Gray Fox was not observed incidentally during the 2024 and 2025 field surveys.

Gray Fox can be found in various habitats including forest, swamp, thickets, and fields. Its range is over 40 hectares.

There is low to moderate potential for Gray Fox to be present. Though this species is rare, there are recent observations (within the last 10 years) in the Ottawa area. Also, the PSA intersects with a large area of natural habitat, which provides the minimum 40-hectare range, and includes the Mer Bleue Bog and numerous creeks.

4.0 Summary

This report has been prepared in support of the provincial Class EA for the portion of the Project on provincially regulated lands (approximately 5 km).

An Ecological Characterization Report has been prepared under separate cover for the portion of the Project on federal lands (approximately 7 km) that is subject to approval from the NCC.

The majority of the PSA consists of culturally disturbed land (e.g. residential development, commercial and institutional, transportation, hydro corridor), and previously disturbed naturalizing land (e.g., meadows, thickets).

Existing conditions are summarized as follows:

- Eight woodland communities were confirmed during field verification. Many of the woodlands identified during desktop review (MNR mapped woodlands) were determined to be thickets.
- Two watercourses are confirmed as providing fish habitat or have high potential to provide fish habitat. These are Ramsay Creek and Mud Creek.
- One valleyland associated with Mud Creek.
- No wetlands were confirmed during field verification. Wetlands identified during desktop review (MNR mapped wetlands) were determined not to be present.
- No Areas of Natural and Scientific Interest are present.
- No confirmed types of SWH were identified; however, five candidate types of SWH were identified.
- No SAR listed under the ESA were observed; however, potential habitat for eight SAR was identified.

This report provides a summary of the natural environment existing conditions associated with the Project based on a review of existing literature and datasets, as well as the results from the 2025 natural environment field program. The assessments conducted as part of this report will be used to help identify potential impacts to the natural environment as a result of the Project.

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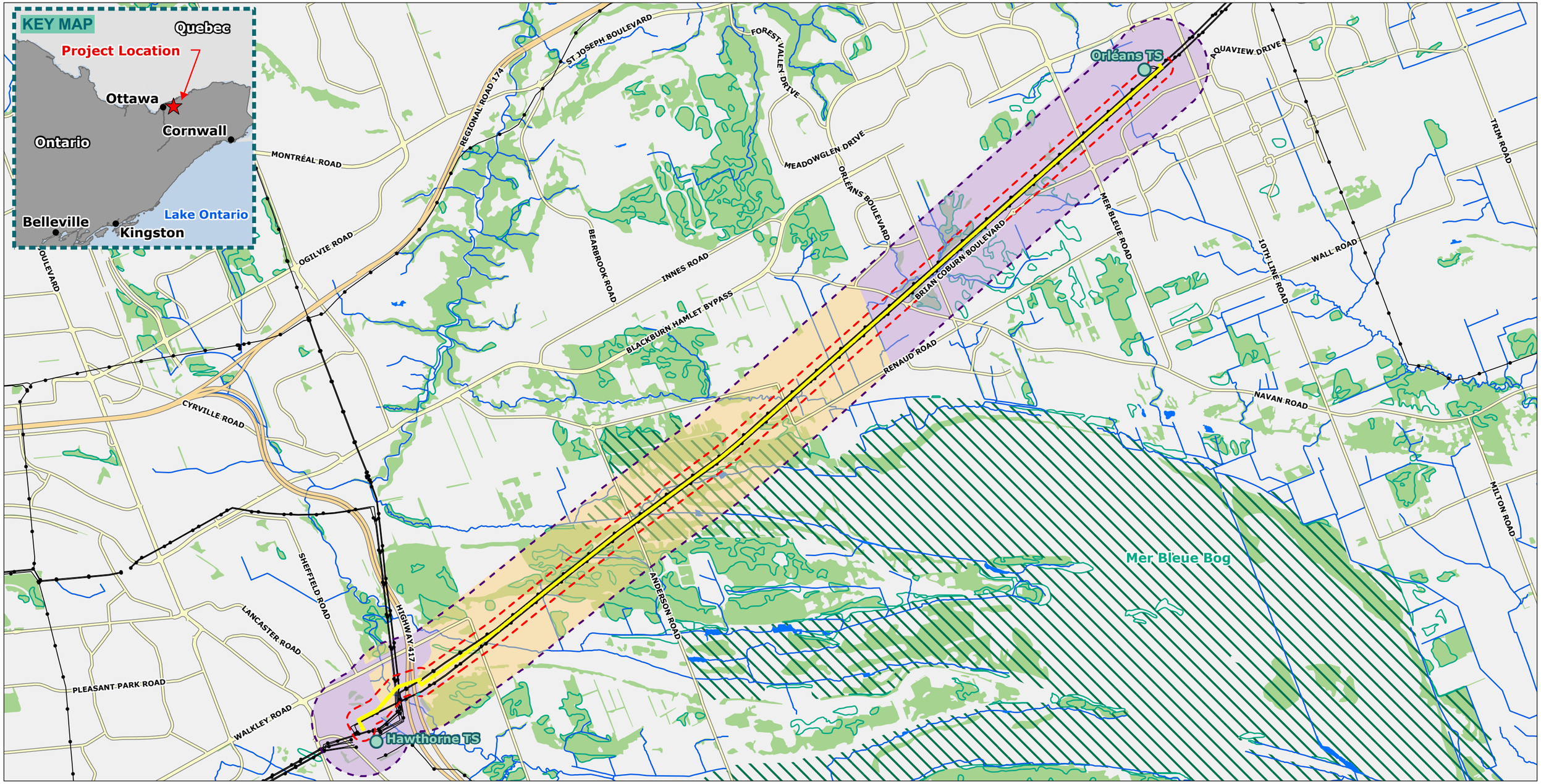
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Appendix A

Figures



HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

PROJECT OVERVIEW

FIGURE 1

- Transformer Station (TS)
- Proposed Transmission Line
- Local Study Area (500 m)
- Project Study Area (120 m)
- Existing Transmission Line
- Highway
- Major Road
- Waterbody
- Watercourse
- Provincially Significant Wetlands
- Unevaluated Wetlands
- Woodlands
- Federally Regulated Area
- Provincially Regulated Area

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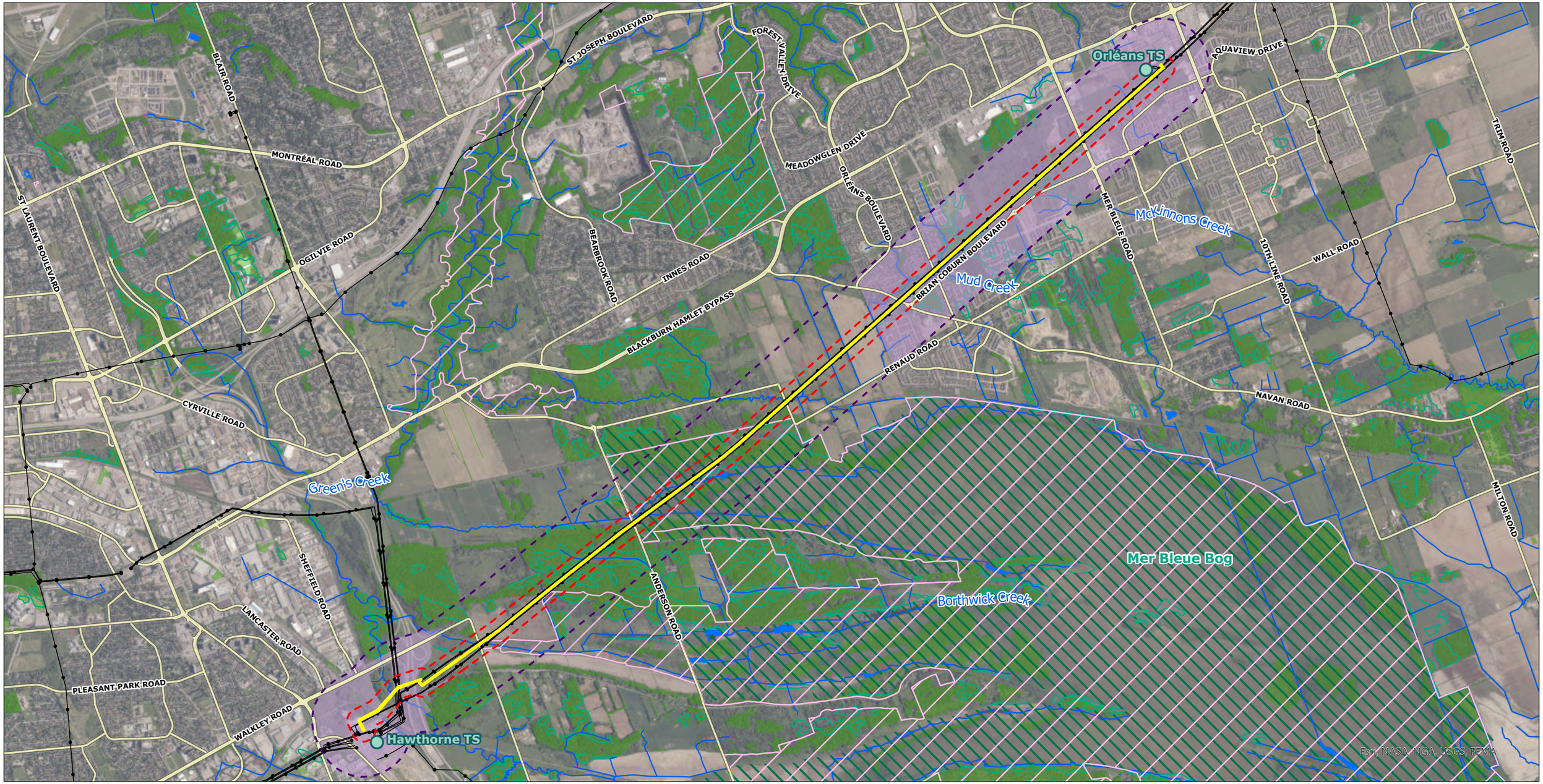
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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

NATURAL HERITAGE FEATURES
FIGURE 2

- Transformer Station (TS)
- Proposed Transmission Line
- Local Study Area (500 m)
- Project Study Area (120 m)
- Existing Transmission Line
- Major Road
- Highway
- Major Road
- Provincially Regulated Area
- Waterbody (MNR, 2024)
- Watercourse (MNR, 2024)
- Provincially Significant Wetlands (MNR, 2024)
- Unevaluated Wetlands (MNR, 2024)
- Woodlands (MNR, 2024)
- Area of Scientific Interest (MNR, 2024)

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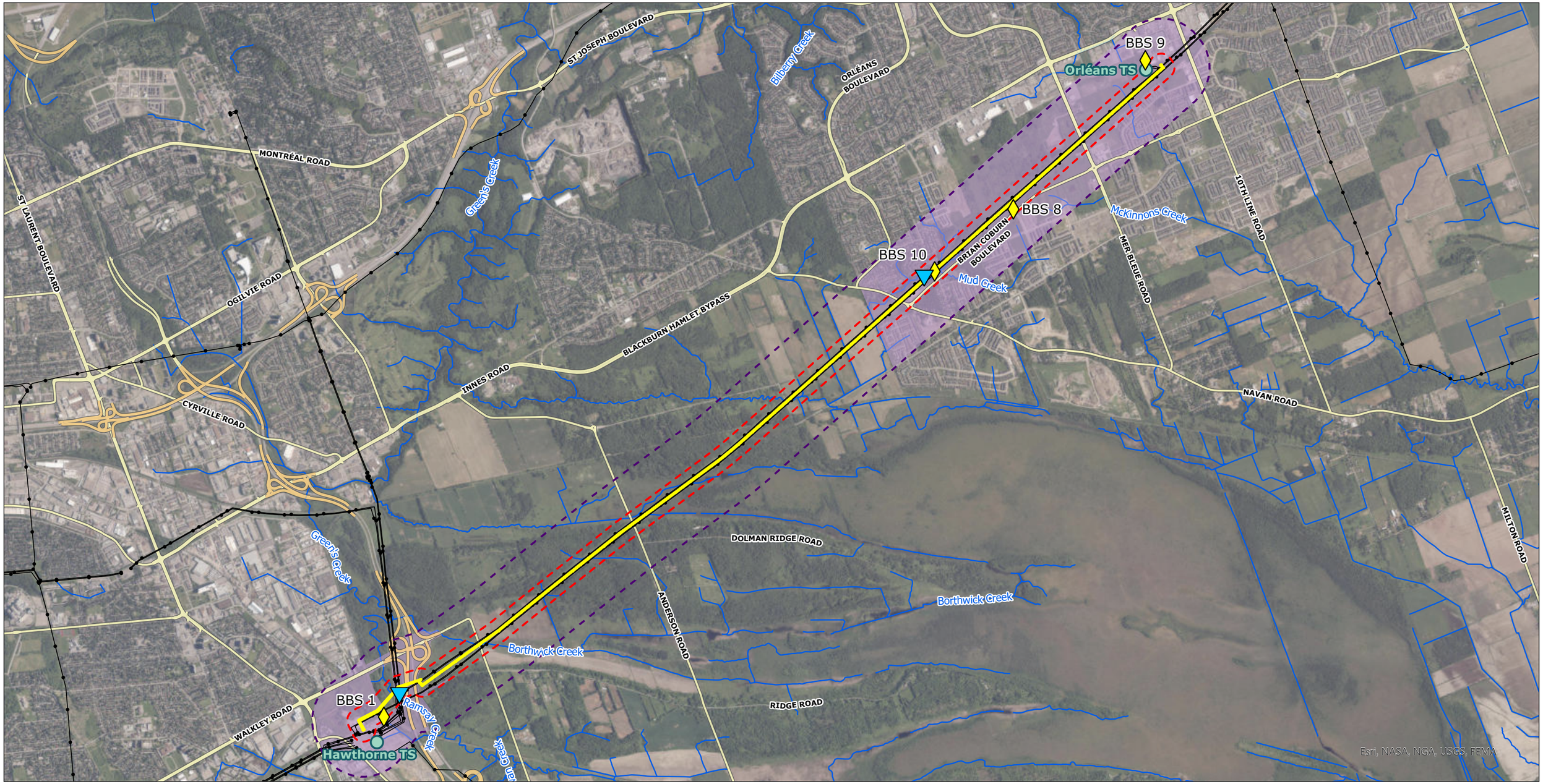
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

SURVEY STATION LOCATIONS - OVERVIEW
FIGURE 3

- Transformer Station (TS)
- Proposed Transmission Line
- Local Study Area (500 m)
- Project Study Area (120 m)
- Existing Transmission Line
- Major Road
- Highway
- Provincially Regulated Area
- Watercourse (MNR, 2024)
- Breeding Bird Survey
- Fish and Fish Habitat Assessment Locations

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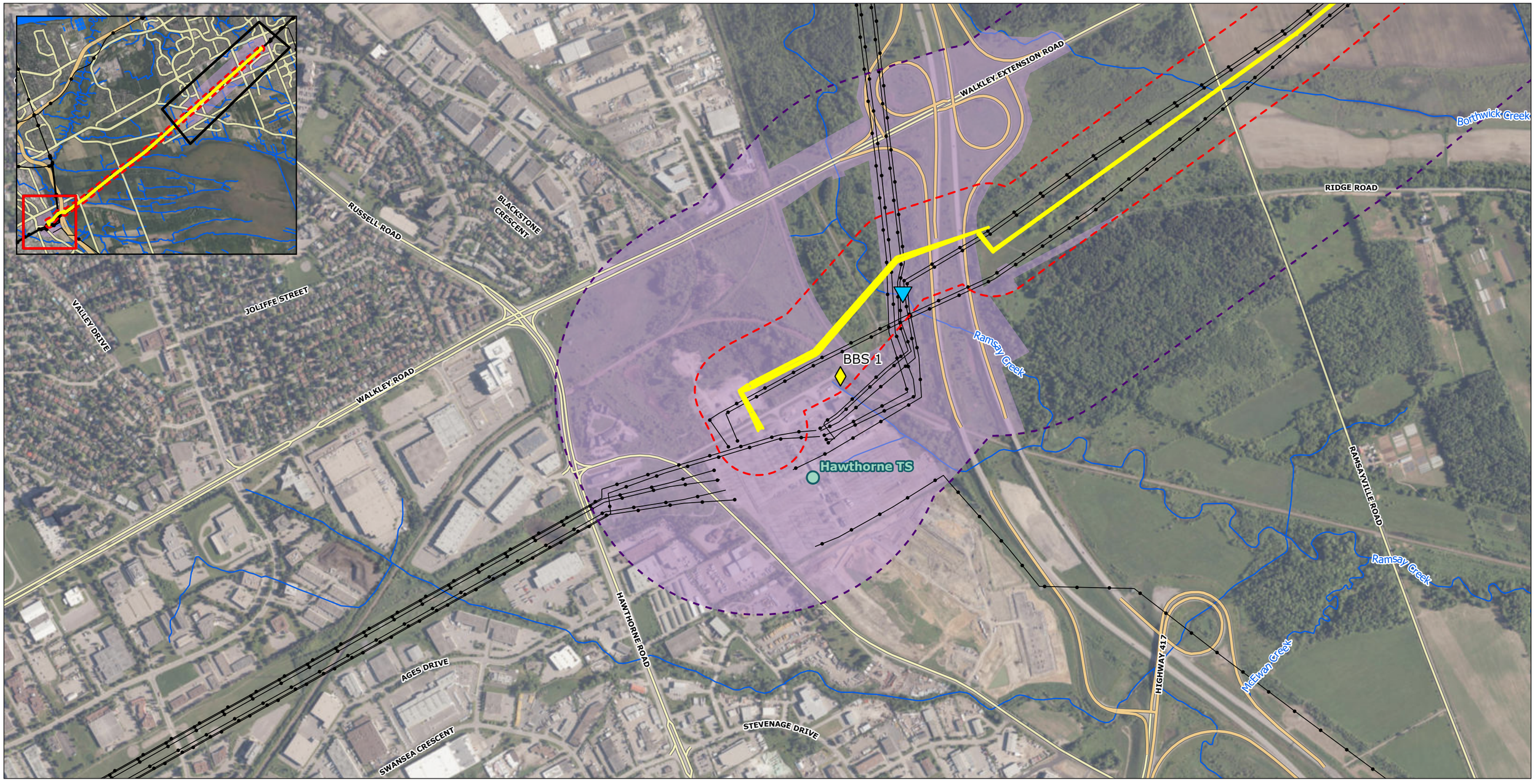
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

SURVEY STATION LOCATIONS

FIGURE 3A

- Transformer Station (TS)
- Proposed Transmission Line
- Local Study Area (500 m)
- Project Study Area (120 m)
- Existing Transmission Line
- Major Road
- Highway
- Provincially Regulated Area
- Watercourse (MNR, 2024)
- Breeding Bird Survey
- Fish and Fish Habitat Assessment Locations

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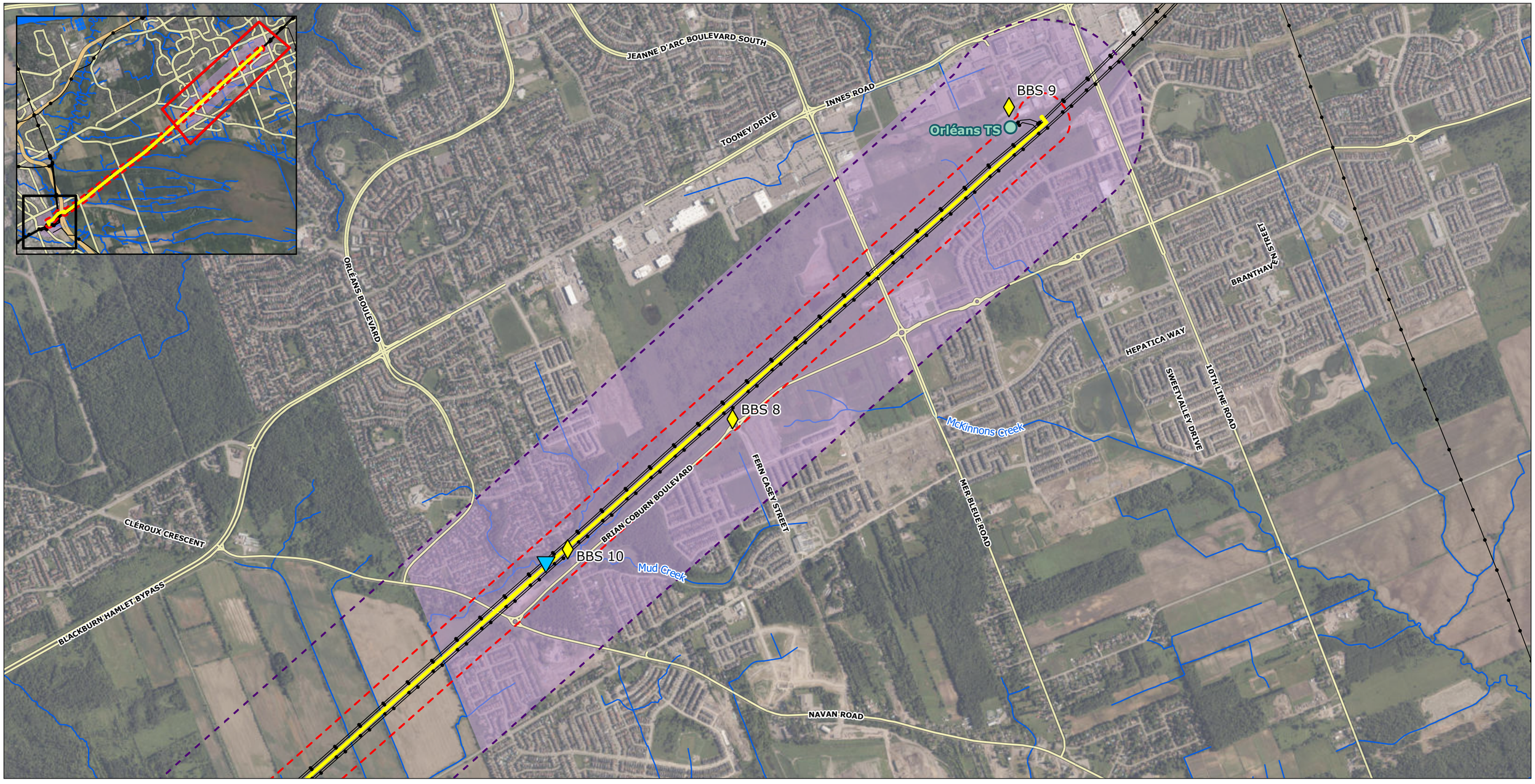
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

SURVEY STATION LOCATIONS

FIGURE 3B

- Transformer Station (TS)
- Proposed Transmission Line
- Local Study Area (500 m)
- Project Study Area (120 m)
- Existing Transmission Line
- Major Road
- Highway
- Provincially Regulated Area
- Watercourse (MNR, 2024)
- Breeding Bird Survey
- Fish and Fish Habitat Assessment Locations

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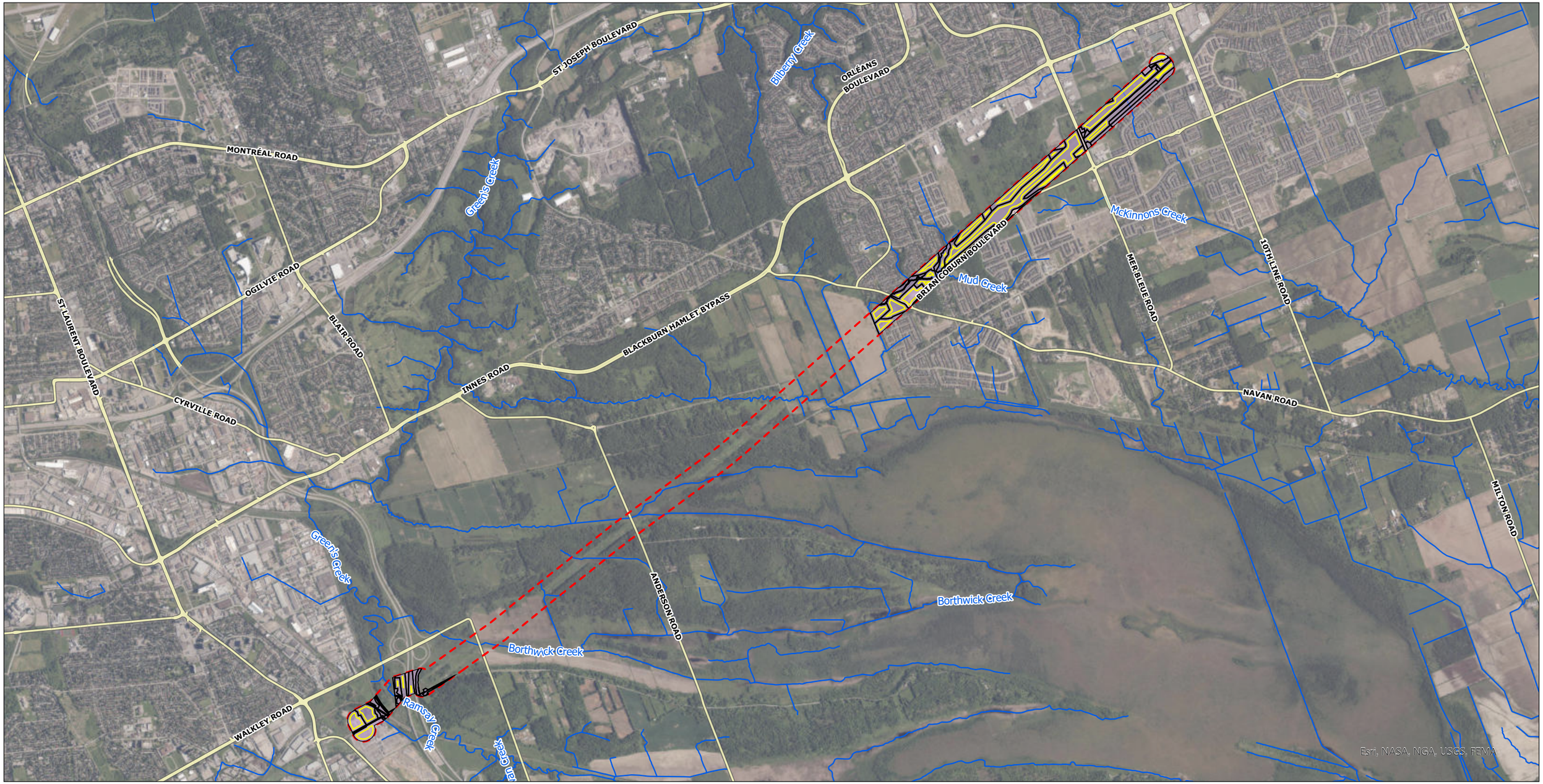
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Orléans Area Reinforcement Project

Transformer Station (TS)
Project Study Area (120 m)
Major Road
Highway
Watercourse (MNR, 2024)
Provincially Regulated Area
Ecological Land Classification

ECOLOGICAL LAND CLASSIFICATION - OVERVIEW
FIGURE 4

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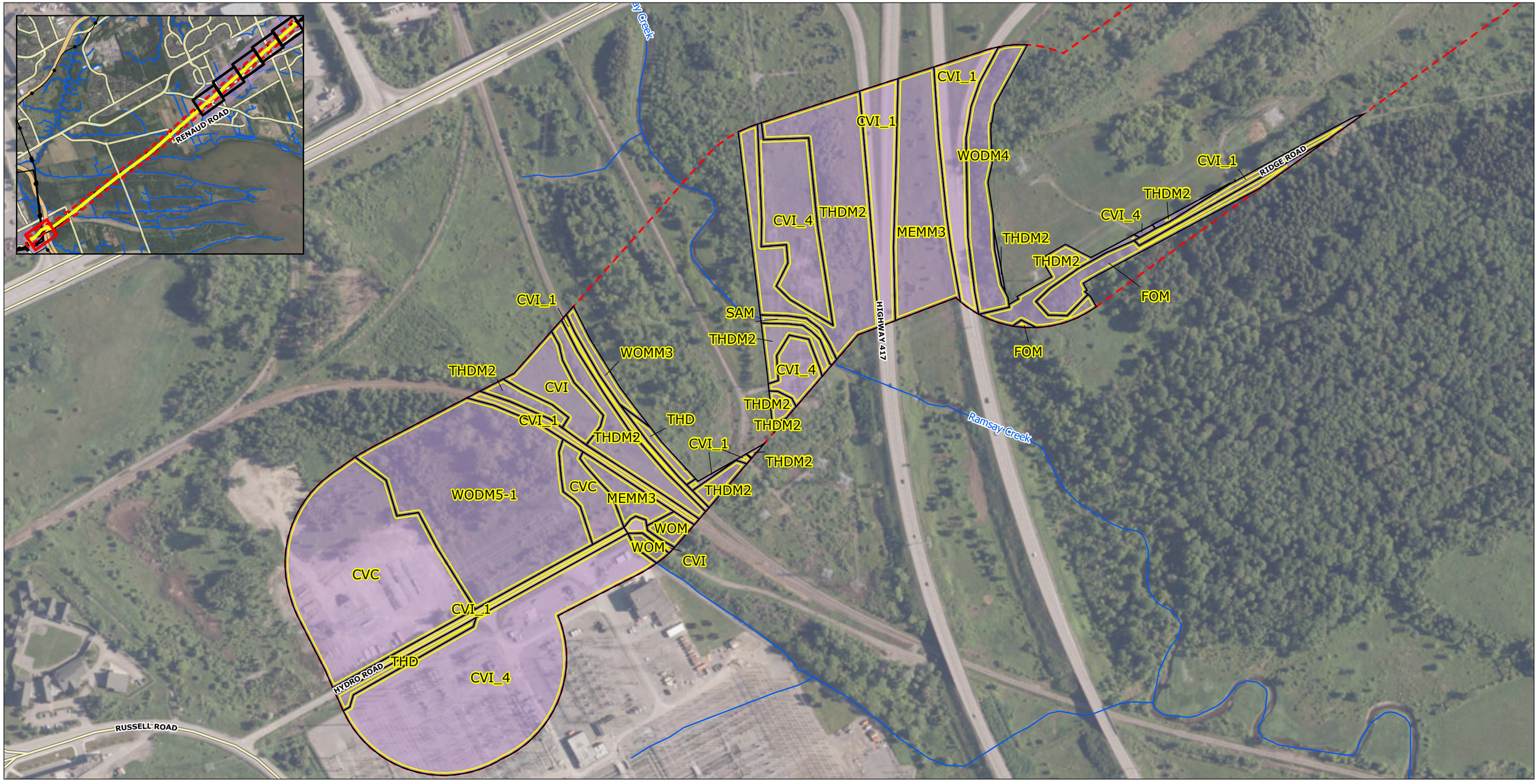
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4A

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification
  - CVC: Commercial and Institutional
  - CVI: Transportation and Utilities
  - CVI_1: Transportation
  - CVI_4: Power Generation
  - FOM: Mixed Forest
  - MEMM3: Dry- Fresh Mixed Meadow Site
  - SAM: Mixed Shallow Aquatic
  - THD: Deciduous Thicket
  - THDM2: Dry-Fresh Deciduous Shrub Thicket Ecosite
  - WODM4: Dry-Fresh Deciduous Woodland Ecosite
  - WODM5-1: Fresh-Moist Poplar Deciduous Woodland Type
  - WOM: Mixed Woodland
  - WOMM3: Dry-Fresh Mixed Woodland Ecosite

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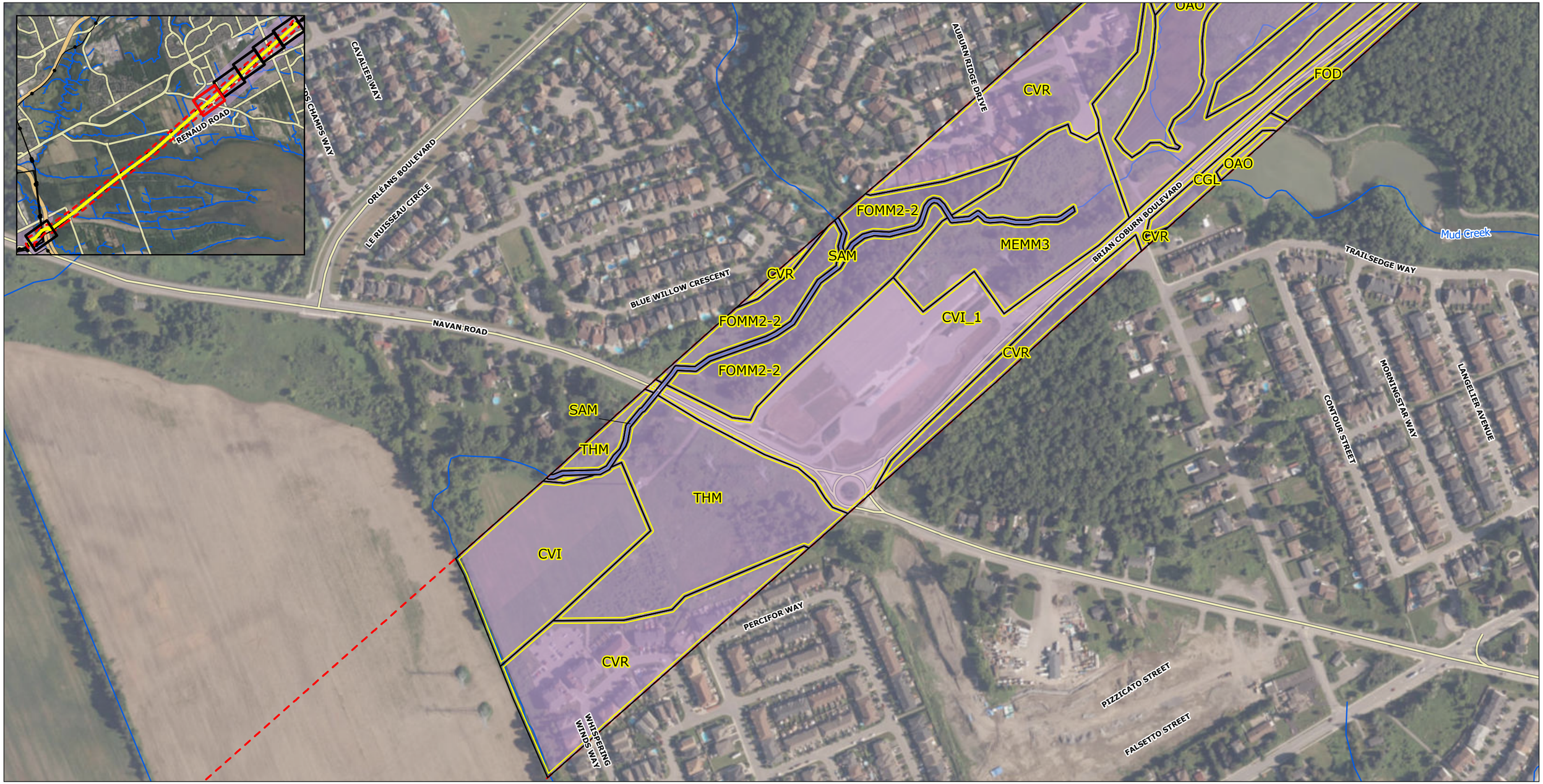
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4B

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification

CGL: Constructed Green Lands
CVI: Transportation and Utilities
CVI_1: Transportation
CVR: Residential
FOD: Deciduous Forest
FOMM2-2: Dry-Fresh White Pine - Oak Mixed Forest Ecosite
MEMM3: Dry- Fresh Mixed Meadow Site
MEMM3 / THDM2: Dry- Fresh Mixed Meadow Site/Dry-Fresh Deciduous Shrub Thicket Ecosite
OAO: Open Aquatic
THM: Mixed Thicket
WODM5: Fresh - Moist Deciduous Woodland Ecosite

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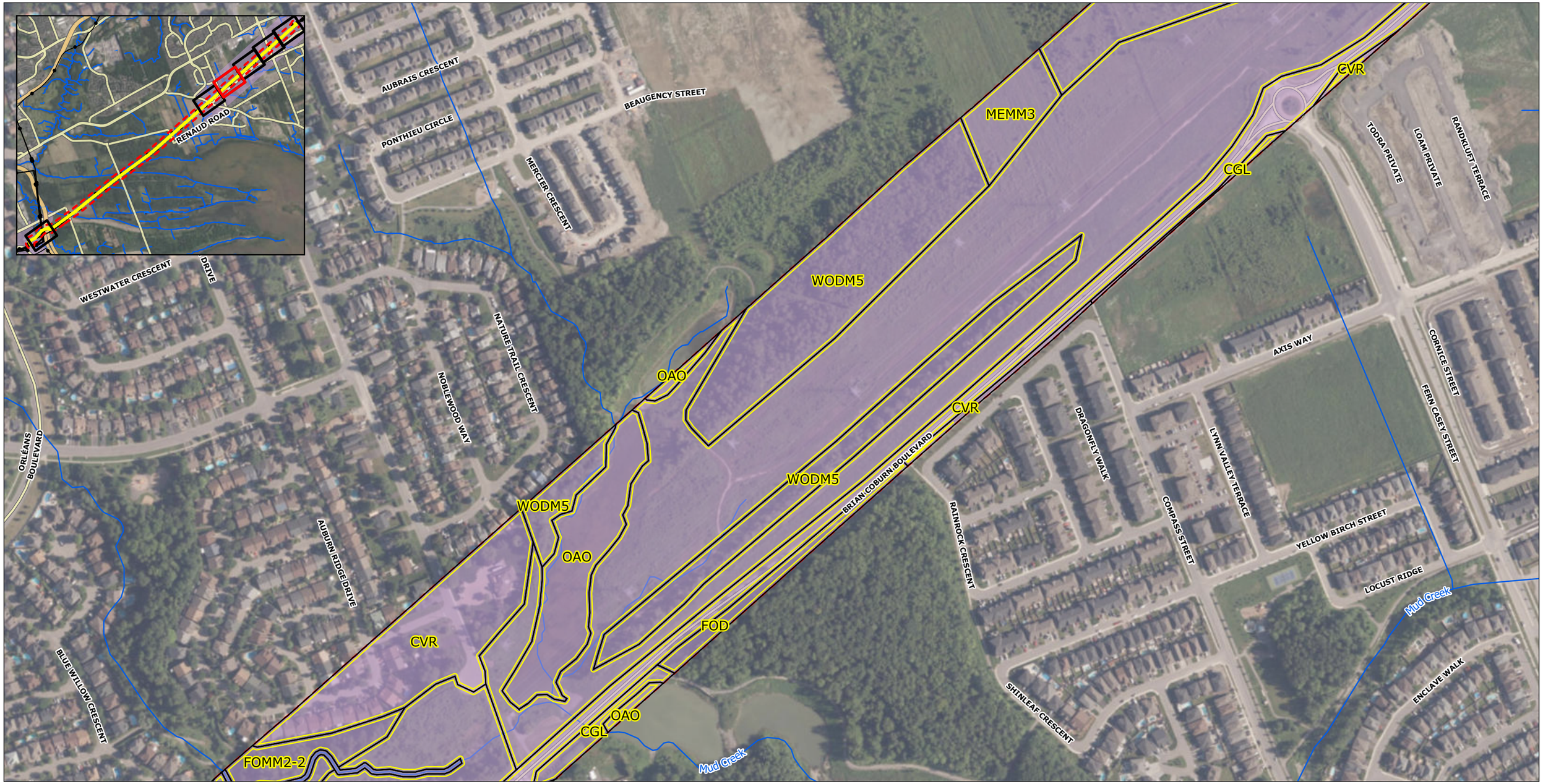
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MAP PROJECTION: NAD 1983 CSRS UTM Zone 18N

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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4C

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification

CGL: Constructed Green Lands
CVI_1: Transportation
CVR: Residential

FOD: Deciduous Forest
FOMM2-2: Dry-Fresh White Pine - Oak Mixed Forest Ecosite
MEMM3: Dry- Fresh Mixed Meadow Site

MEMM3 / THDM2: Dry- Fresh Mixed Meadow Site/Dry-Fresh Deciduous Shrub Thicket Ecosite
OAO: Open Aquatic

WODM5: Fresh - Moist Deciduous Woodland Ecosite
WODM5-1: Fresh-Moist Poplar Deciduous Woodland Type

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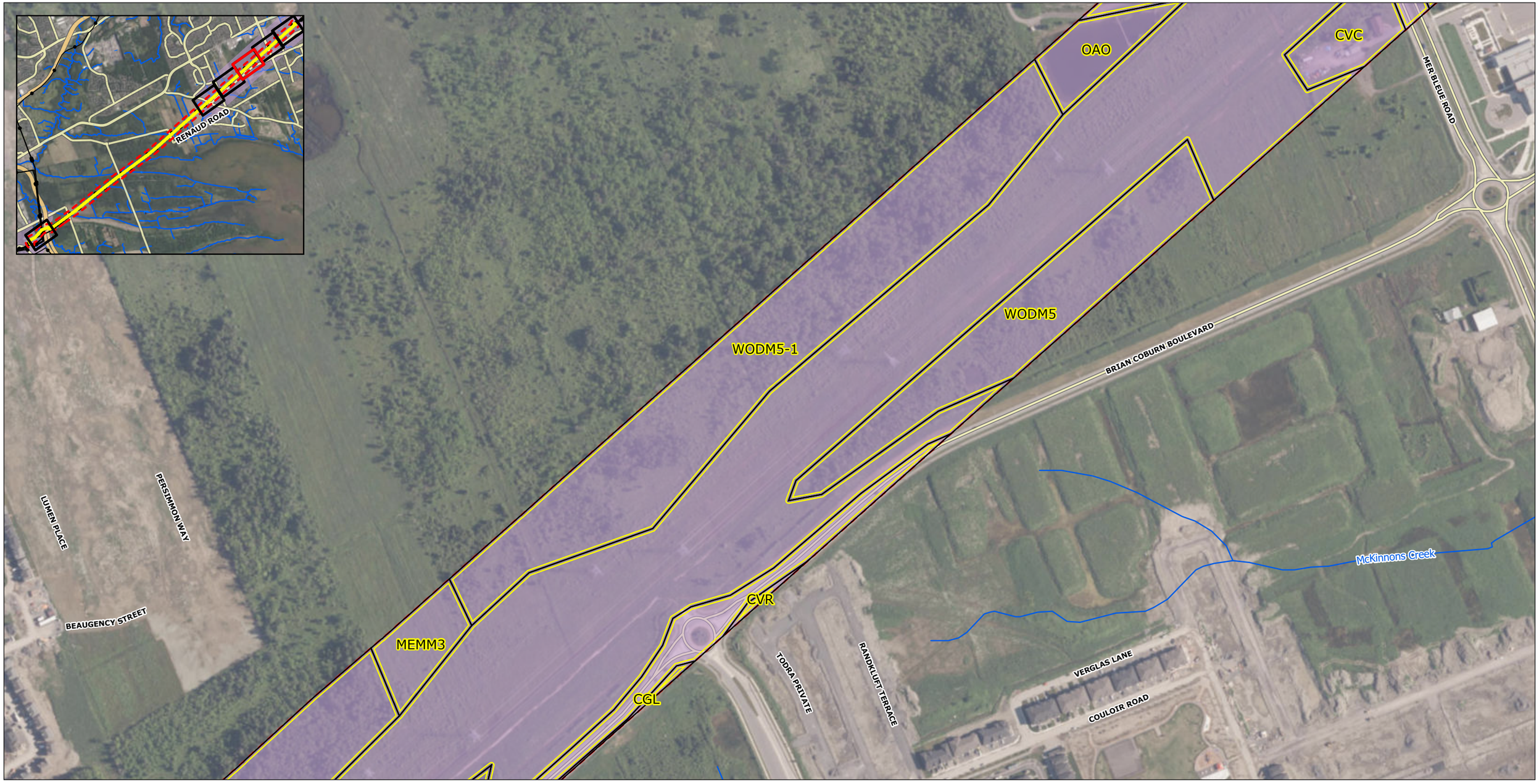
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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4D

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification
  - CGL: Constructed Green Lands
  - CVC: Commercial and Institutional
  - CVI_1: Transportation
  - CVR: Residential
  - MEMM3: Dry- Fresh Mixed Meadow Site
  - MEMM3 / THDM2: Dry- Fresh Mixed Meadow Site/Dry-Fresh Deciduous Shrub Thicket Ecosite
  - OAO: Open Aquatic
  - WODM5: Fresh - Moist Deciduous Woodland Ecosite
  - WODM5-1: Fresh-Moist Poplar Deciduous Woodland Type

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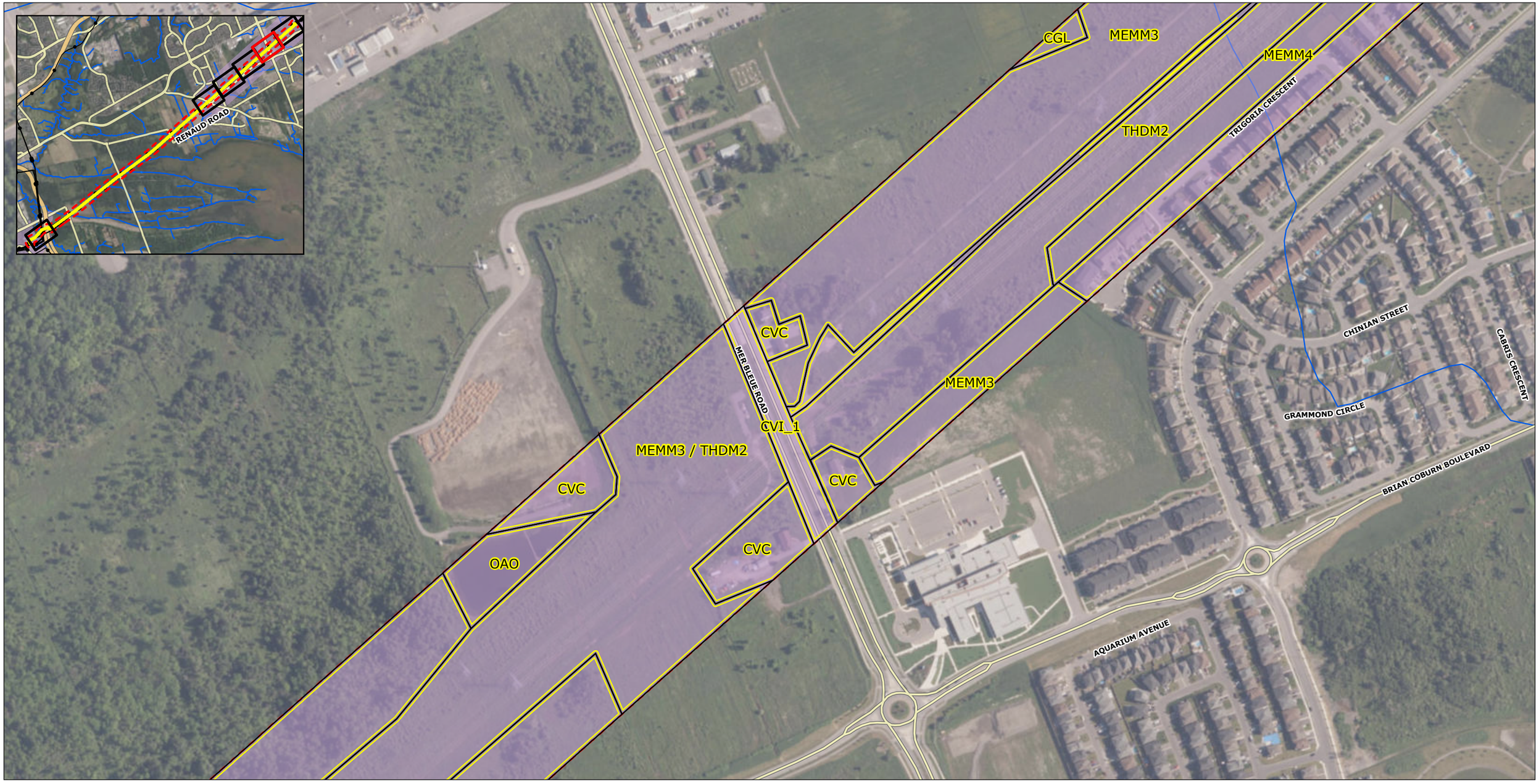
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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4E

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification
- CGL: Constructed Green Lands
- CVC: Commercial and Institutional
- CVI_1: Transportation
- CVI_4: Power Generation
- CVR: Residential
- MEMM3: Dry- Fresh Mixed Meadow Site
- MEMM3 / THDM2: Dry- Fresh Mixed Meadow Site/Dry-Fresh Deciduous Shrub Thicket Ecosite
- MEMM4: Fresh-Moist Mixed Meadow Ecosite
- OAO: Open Aquatic
- THDM2: Dry-Fresh Deciduous Shrub Thicket Ecosite
- WODM5: Fresh - Moist Deciduous Woodland Ecosite
- WODM5-1: Fresh-Moist Poplar Deciduous Woodland Type

DILLON CONSULTING

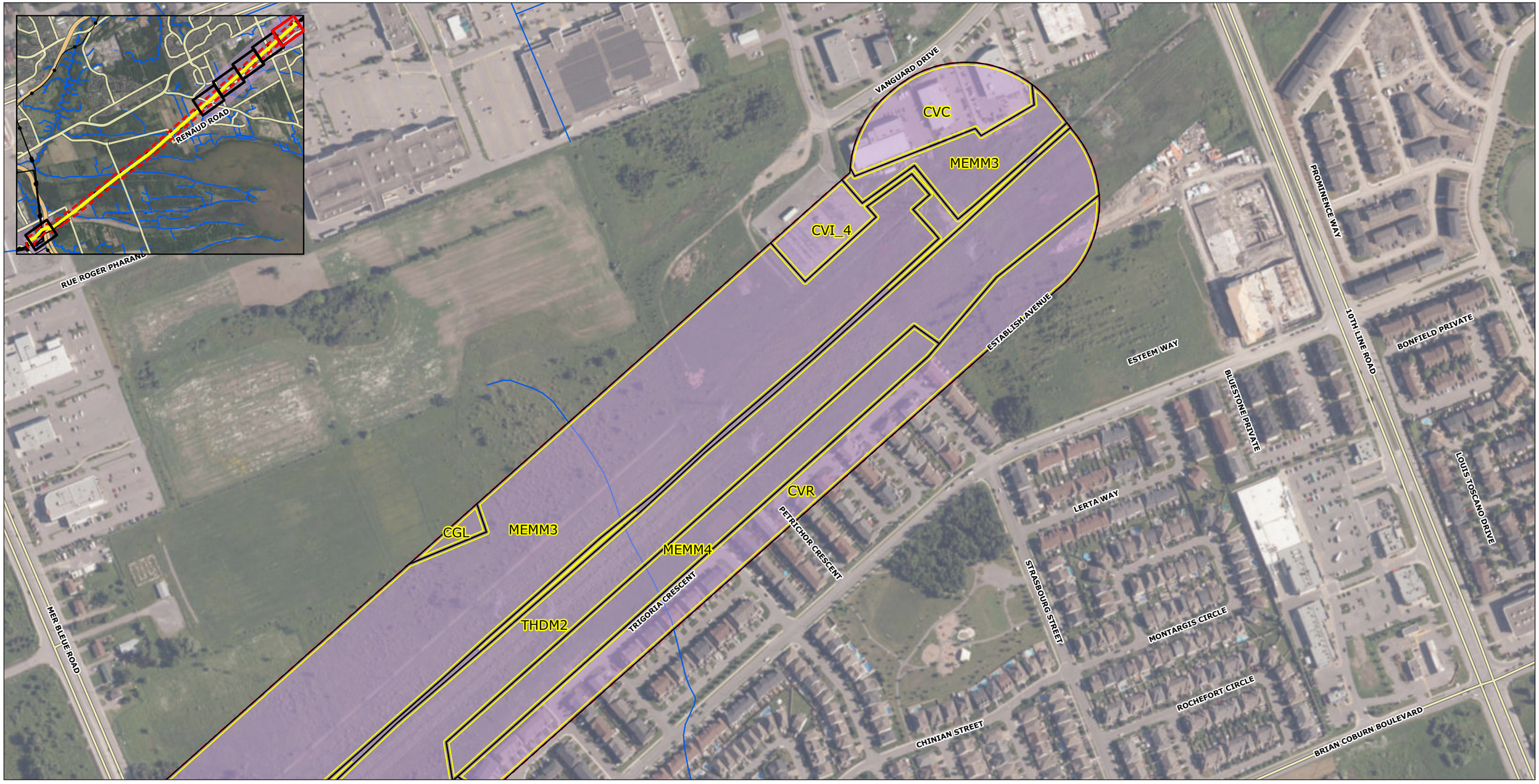
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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

ECOLOGICAL LAND CLASSIFICATION
FIGURE 4F

- Project Study Area (120 m)
- Major Road
- Highway
- Watercourse (MNR, 2024)
- Provincially Regulated Area
- Ecological Land Classification

CGL: Constructed Green Lands
CVC: Commercial and Institutional
CVI_1: Transportation
CVI_4: Power Generation
CVR: Residential
MEMM3: Dry- Fresh Mixed Meadow Site
MEMM4: Fresh-Moist Mixed Meadow Ecosite
THDM2: Dry-Fresh Deciduous Shrub Thicket Ecosite

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Seasonal Concentration Areas of Animals - Reptile Hibernaculum:
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Habitat for Species of Conservation Concern - Special Concerns and Rare Wildlife Species:
Candidate SWH is present in all natural or naturalized ELC communities for at least one SCC species.

SAR:
There is potential for Species at Risk bats, and Grey Fox, to be present within the study area. Suitable habitat for these species is described in the report, and the SAR table (Appendix C).

HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

Proposed Transmission Line
Project Study Area (120 m)
Major Road
Highway
Watercourse (MNR, 2024)
Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)
Bat Maternity Colonies (Candidate SWH)
Turtle Wintering Areas (Candidate SWH)
Monarch (Special Concern)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK - OVERVIEW
FIGURE 5

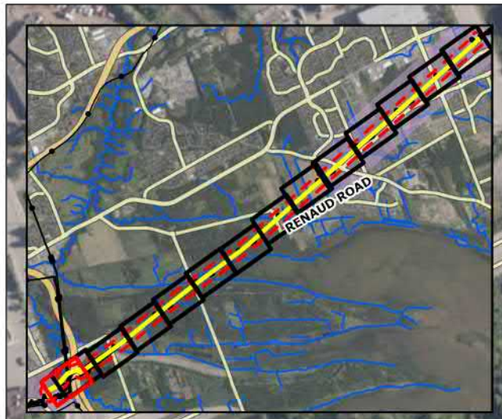
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RIDGE ROAD

HIGHWAY 417

Ramsay Creek

RUSSELL ROAD

HYDRO ROAD

Seasonal Concentration Areas of Animals - Reptile Hibernaculum:
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Orléans Area Reinforcement Project

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Project Study Area (120 m)
Major Road
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Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)
Bat Maternity Colonies (Candidate SWH)
Turtle Wintering Areas (Candidate SWH)
Monarch (Special Concern)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5A

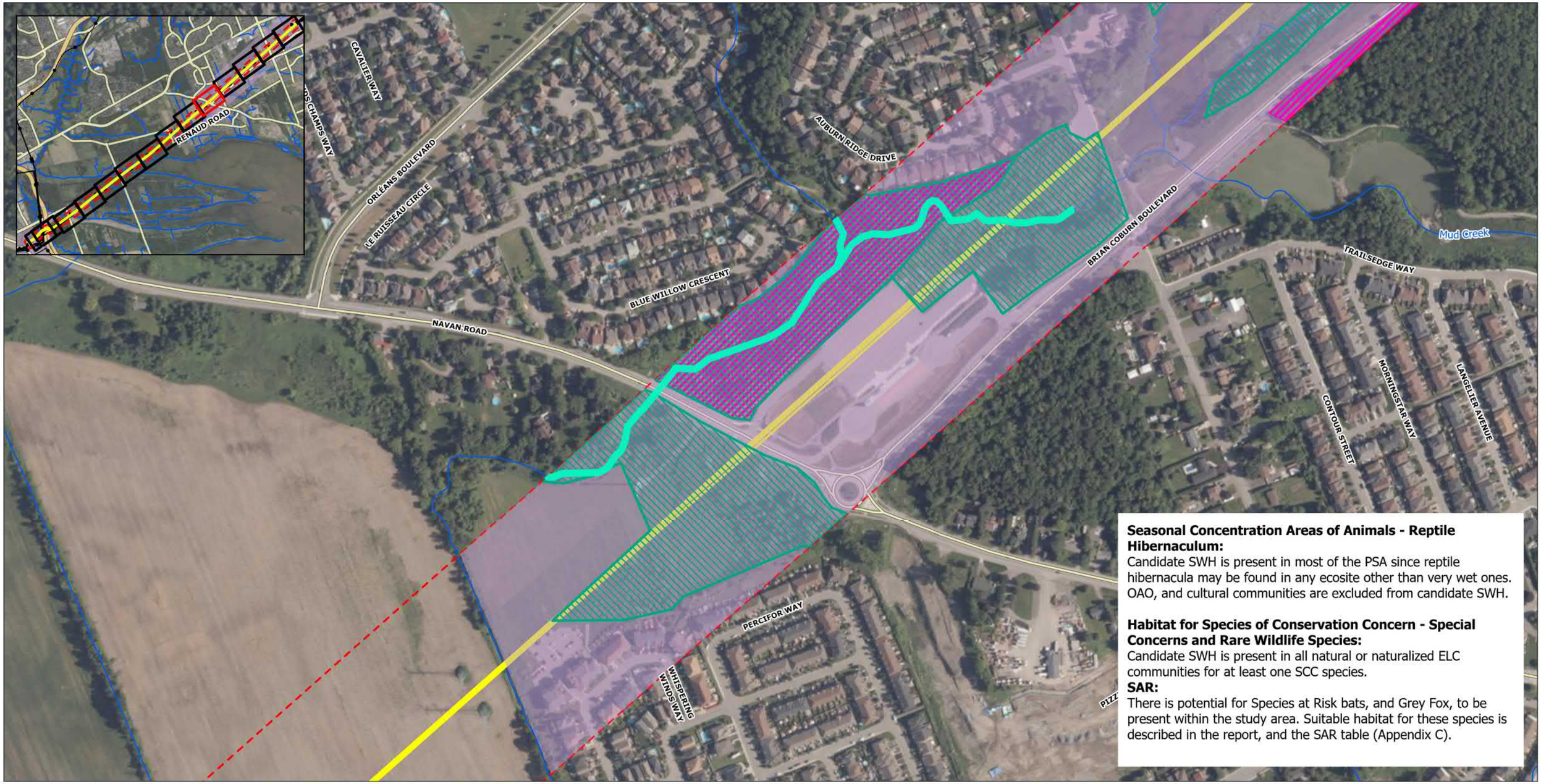
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Seasonal Concentration Areas of Animals - Reptile Hibernaculum:
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NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

Proposed Transmission Line
Project Study Area (120 m)
Major Road
Highway
Watercourse (MNR, 2024)
Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)
Bat Maternity Colonies (Candidate SWH)
Turtle Wintering Areas (Candidate SWH)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5B

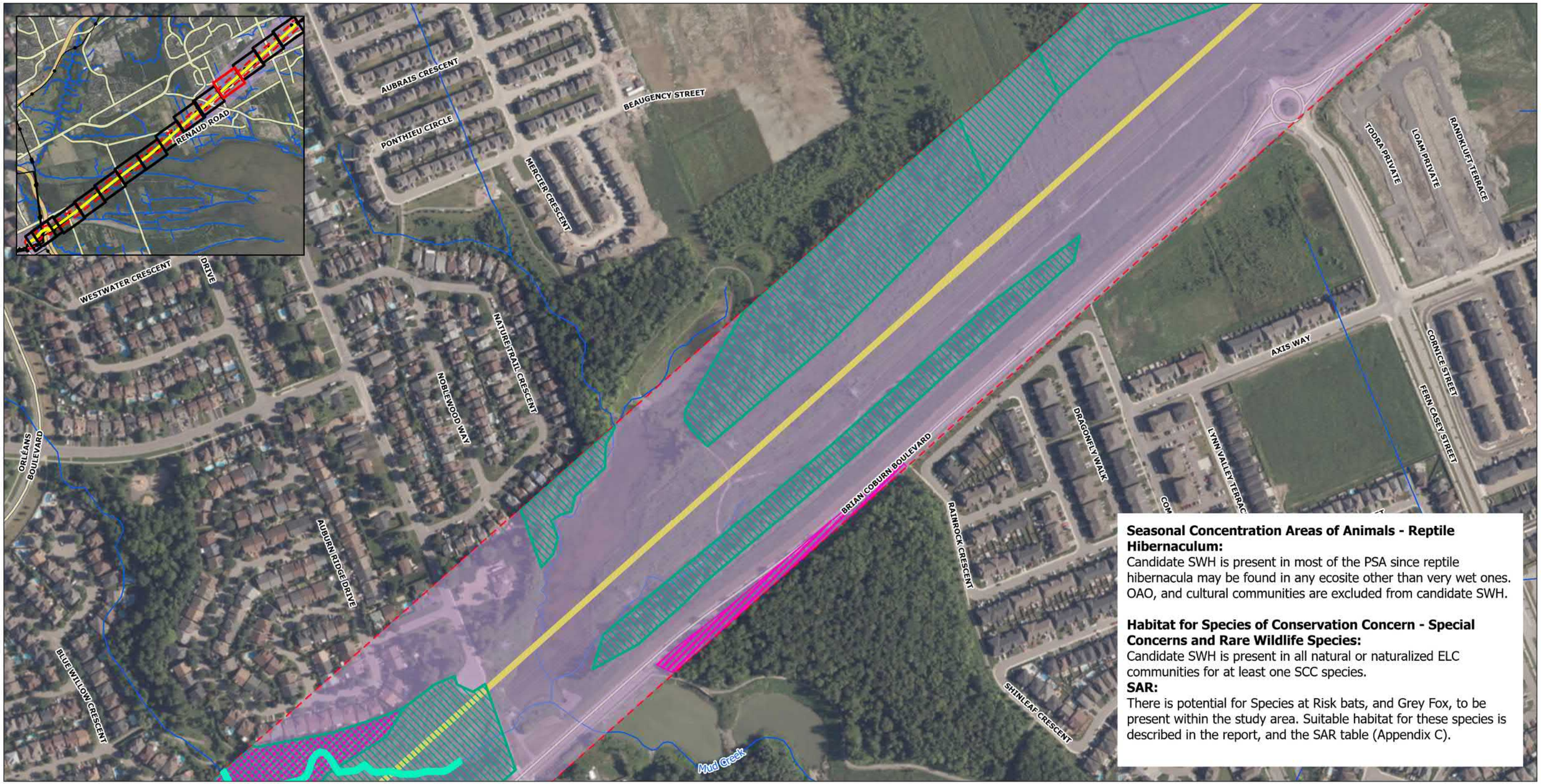
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Orléans Area Reinforcement Project

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Project Study Area (120 m)
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Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)
Bat Maternity Colonies (Candidate SWH)
Turtle Wintering Areas (Candidate SWH)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5C

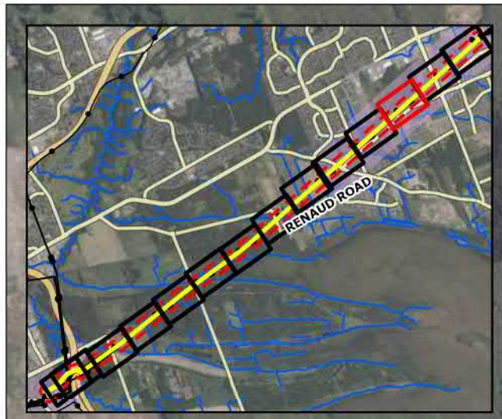
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MER BLEUE ROAD

BRIAN COBURN BOULEVARD

LUMEN PLACE

PERSIMMON WAY

BEAUGENCY STREET

TODRA PRIVATE

RANDKLUFT TERRACE

Seasonal Concentration Areas of Animals - Reptile Hibernaculum:
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Orléans Area Reinforcement Project

Proposed Transmission Line
Project Study Area (120 m)
Major Road
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Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5D

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MER BLEUE ROAD

TRIGORIA CRESCENT

CHINIAN STREET

CABRIS CRESCENT

GRAMMOND CIRCLE

BRIAN COBURN BOULEVARD

Seasonal Concentration Areas of Animals - Reptile Hibernaculum:
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Orléans Area Reinforcement Project

Proposed Transmission Line
Project Study Area (120 m)
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Watercourse (MNR, 2024)
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Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5E

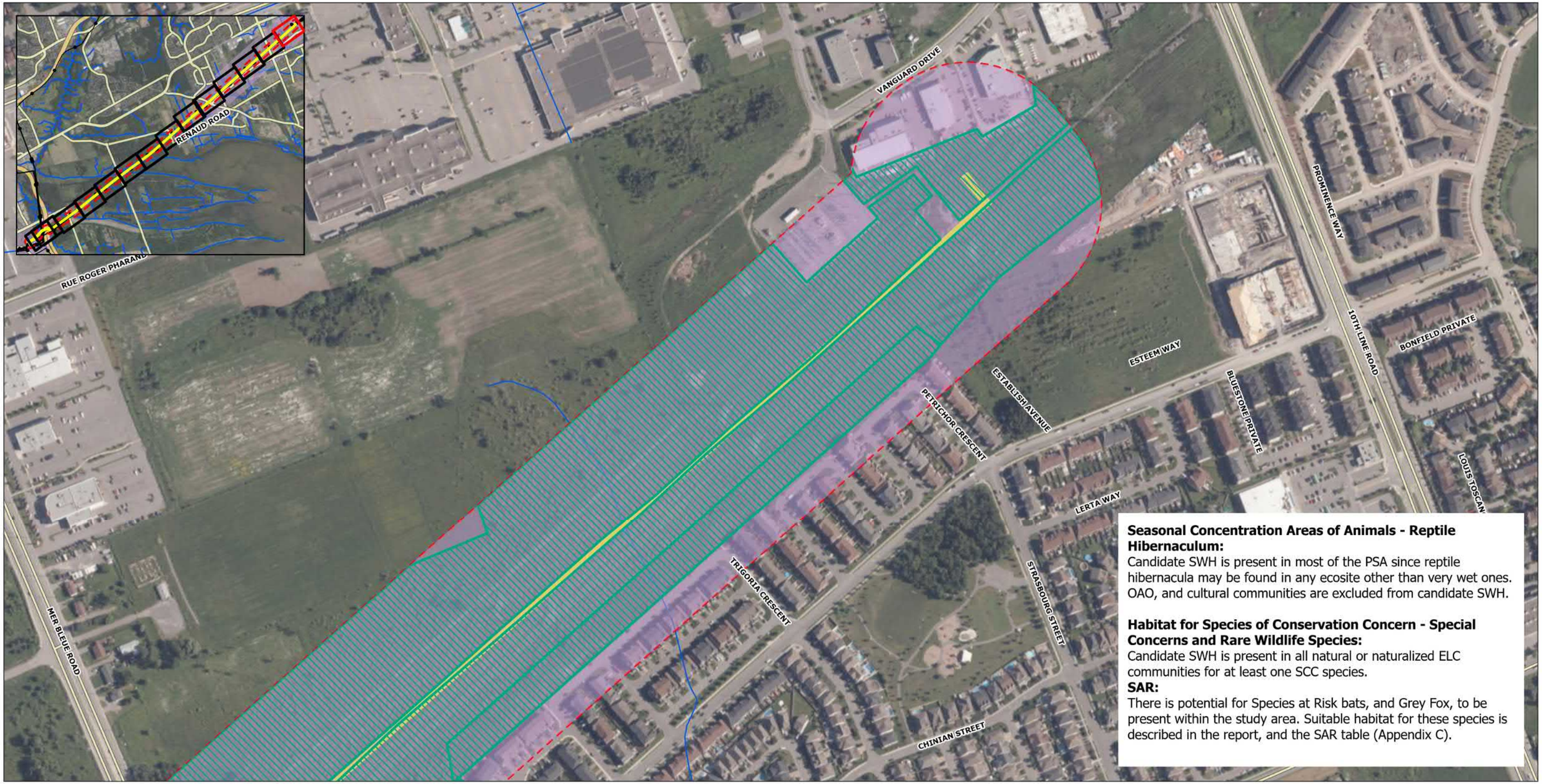
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HYDRO ONE NETWORKS INC.
NATURAL ENVIRONMENT EXISTING CONDITIONS TECHNICAL REPORT
Orléans Area Reinforcement Project

Proposed Transmission Line
Project Study Area (120 m)
Major Road
Highway
Watercourse (MNR, 2024)
Provincially Regulated Area

Seasonal Concentration Areas of Animals
Raptor Wintering Area (Candidate SWH)

SIGNIFICANT WILDLIFE HABITAT AND SPECIES AT RISK
FIGURE 5F

DILLON CONSULTING

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Appendix B

Summary of Planned Natural Environment Surveys

Summary of Planned Natural Environment Surveys

Survey Type	Purpose of Survey	Survey Methodology	Survey Timing	Access Requirements[1]
Spring Site Reconnaissance	Determine locations for surveys that could not be determined using aerial imagery alone.	N/A	Before commencement of survey program. Likely early April after most snow has melted.	A Land Access Permit to access National Capital Commission lands. Any Early Access Agreements where possible.
Ecological Land Classification (ELC) and Botanical Assessment	Characterize vegetation communities (e.g. forest, meadow, etc.) and compile a vegetation species list.	Vegetation will be assessed using wandering transects to determine presence, richness, and abundance of floral species. The presence of non-native and/or invasive species will also be noted and mapped. Conducted concurrently and based on floral species observed, vegetation will be characterized using the Ecological Land Classification System for Southern Ontario protocols (Lee *et al.*, 1998; Lee, 2008) in order to classify and map ecological communities to the vegetation type level, where appropriate. Soil classification surveys will not be completed.	One survey over three to four days conducted between June – August.	Wandering transect surveys conducted within the Project Study Area (PSA)[2], subject to land access permission.
Amphibian Call Count Surveys	Document the presence or absence of breeding anurans (frogs and toads) in potentially suitable habitat types (e.g. wetlands, woodlands with permanent ponds or pools, etc.).	Amphibian breeding surveys will be conducted to assess presence/absence and species abundance during the breeding season. Survey locations will be chosen in order to capture conditions near mapped wetlands and/or potential wetlands. Surveys will follow methodology described in the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Bird Studies Canada, 2009).	Temperature dependant surveys are repeated three times: early April, early May, and early June, with three-minute point counts conducted at least one half hour after sunset until no later than midnight.	Pedestrian surveys within the PSA, subject to land access permission.
Breeding Bird Surveys	Document the presence or absence of breeding birds in potentially suitable habitat types (e.g. natural habitat that may support breeding birds such as forests, meadow, marsh, etc.).	Breeding bird surveys will consist of point counts that will establish species presence and quantitative estimates of bird abundance in suitable habitat types. During the surveys, evidence of breeding behaviour will be recorded, which generally includes, but is not limited to, singing males, nest building, egg incubation, territorial defense, carrying food/fecal sacs, and feeding young. Diurnal breeding bird surveys will follow methods outlined in the Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada, 2021).	Two surveys between late May and early July, with 10-minute point counts conducted between dawn and five hours after sunrise.	Pedestrian surveys within the PSA, subject to land access permission.
Fish and Fish Habitat Assessment	The main goal of the fish and fish habitat assessments is to describe the fish habitats of watercourses or waterbodies that might be impacted by the Project. This information will help identify possible Project effects and guide the development of mitigation strategies.	The assessments will use a survey form that is based on requirements in the Interim Environmental Guide for Fisheries (Ministry of Transportation, 2020), as well as for federal regulatory submissions for Fisheries and Oceans Canada. Information collected will focus on waterbody/watercourse physical characteristics. Fish habitat quality will be assessed by classifying stream geomorphology, in-stream and riparian vegetation, substrate type, bank stability, as well as the presence of groundwater indicators. Incidental observations of fish, bivalves and aquatic invasive flora and fauna will be documented.	One visit between June – August.	Pedestrian surveys within the PSA, subject to land access permission.

Survey Type	Purpose of Survey	Survey Methodology	Survey Timing	Access Requirements[1]
Species at Risk Habitat and General Wildlife Habitat Assessment / Significant Wildlife Habitat	Determine Species at Risk Habitat. A General Wildlife Habitat Assessment will be conducted on federal lands and a Significant Wildlife Habitat Assessment will be conducted on provincial lands.	Candidate and/or confirmed Significant Wildlife Habitat and a General Wildlife Habitat Assessment will be mapped in provincial lands and federal lands respectively and will be follow criteria outlined in the Ecoregion 6e Criterion Schedule (MNRF, 2015) of the Significant Wildlife Habitat Technical Guide (MNRF, 2000). These assessments, as well as the Species at Risk Habitat will be based on the results of other surveys (such as ELC, amphibian breeding surveys, breeding bird surveys, etc.).	To occur concurrently with each of the other surveys from April – August.	Pedestrian surveys within the PSA, subject to land access permission.
Incidental Wildlife Observations	Document the presence of incidental wildlife and/or potential wildlife presence (e.g. cavity trees/snags, reptile hibernacula, etc.).	Wildlife observations, including indicators of wildlife use (e.g. scat, burrows, tracks, etc.) will be recorded during each visit.	To occur concurrently with each of the other surveys from April – August.	Pedestrian surveys within the PSA, subject to land access permission.
SAR Turtle Surveys	Document the presence or probable absence of SAR turtles (Blanding's Turtle and Spotted Turtle) and any other turtle that may inform general wildlife habitat.	Visual encounter surveys for basking SAR turtles will follow protocols as outlined in the Survey Protocol for Blanding's Turtle (*Emydoidea blandingii*) in Ontario (MNRF, 2015).	Five site visits from early May (or when ice cover recedes) to June 15.	Pedestrian surveys within the PSA, subject to land access permission.
Western Chorus Frog Surveys	Document the presence or probable absence of Western Chorus Frog.	Western Chorus Frog surveys will follow methods of the Survey Protocol for 2022 Western Chorus Frog Long-Term Monitoring Program (Blazing Star, 2022). Survey stations will be chosen based on habitat suitability.	Three surveys during the day from April to the first weeks of May.	Pedestrian surveys within the PSA, subject to land access permission.
Least Bittern Surveys	Document the presence or probable absence of Least Bittern and other conspecific species.	Areas likely to support the species will be identified using aerial imagery and data from ELC and botanical surveys, as these areas will serve as survey stations. This includes potential habitat such as open marshes, specifically cattail marshes. During the survey, species-specific call responses will be broadcast (using a smartphone, MP3 player, CD, or tape) at the survey station to elicit a response. Surveyors will note whether birds were seen or heard and the distance from the surveyor when the bird was detected. Other conspecific species will be recorded to determine habitat suitability. Least Bittern surveys will follow methods of the National Least Bittern Survey Protocol (Jobin *et al.*, 2011).	Three surveys between early May – mid-July.	Pedestrian surveys within the PSA, subject to land access permission.
Wetland Delineation and Function Assessment	To evaluate wetlands that appear to have characteristics of a Provincially Significant Wetland and are currently unevaluated.	A full evaluation, including scoring for significance, will be completed by a certified OWES evaluator using the 4th Edition of the Southern Ontario Wetland Evaluation System Manual (Ministry of Natural Resources and Forestry [MNRF], 2022). Full evaluations will occur for wetlands that may meet the criteria of a Provincially Significant Wetland (PSW) but have not been evaluated. This evaluation will be used because there is no federal protocol for determining "significance". Additionally, information requirements that are listed in Appendix A of the Wetland Ecological Function Assessment: An Overview of Approaches (Hanson *et al.*, 2008), including those not required in OWES, will be documented.	Evaluations between June – August.	Pedestrian surveys within the PSA, subject to land access permission.

Survey Type	Purpose of Survey	Survey Methodology	Survey Timing	Access Requirements[1]
Tree Inventory	Document all trees that have the potential to be impacted during project works within the PSA. Document SAR trees within the PSA	Trees that are 10 cm diameter breast height (DBH) or greater that are anticipated to be impacted during project works will be identified and mapped by a certified arborist. Provincial or federal SAR will be identified regardless of size and whether alive or dead. Information to be collected as part of the tree inventory will include: • Location of trees, if any are to be removed or potentially impacted (to be shown on mapping at an appropriate scale); • Species and cultivar and, if applicable, status under the Species at Risk Act, 2002 (SARA), Endangered Species Act, 2007 (ESA), and Committee on the Status of Endangered Wildlife in Canada (COSEWIC); • Condition of tree (noting structural or health issues), DBH and Critical Root Zone (based on 12x DBH); and • Any additional information such as wildlife habitat suitability/presence.	One survey over two to three days between June – August.	Pedestrian surveys within the PSA, subject to land access permission.
Butternut Searches and Butternut Health Assessments	Document the presence or absence of Butternut and assess the health of any Butternut found.	Butternut Health and Assessments will be completed by a qualified Butternut Health Expert and will follow methods of the 2021 Butternut Assessment Guidelines (MECP, 2021).	Conducted concurrently with the tree inventory between June – August.	Pedestrian surveys within the PSA, subject to land access permission.
Monarch Habitat Survey	To evaluate habitat suitability for Monarch.	Targeted survey looking for milkweed which Monarch prefer for oviposition, should be completed. Surveys looking for Monarch larvae and adult Monarchs in areas where milkweed is found will be conducted concurrently with other terrestrial surveys to determine if the potential habitat is suitable. Surveys will be conducted with general guidance from "The Canadian Monarch Monitoring Protocol & Sampling Grid" (Montreal Space for Life, 2023).	Conducted concurrently during other surveys between June – August. If milkweed species are found, surveys for Monarchs are recommended to occur weekly or as able, once monarchs have arrived in the Ottawa area (using online resources to determine).	Pedestrian surveys within the PSA, subject to land access permission.
SAR Bat Habitat Survey	To evaluate habitat suitability for SAR bats.	Where potential snag/cavity trees are identified, the DBH, tree species, tree height and approximate decay class will be recorded, as well as approximate location and height of cavities and/or cracks. GPS coordinates will be recorded for each snag/cavity tree assessed. Survey methodology will generally follow the Bats and Bat Habitats: Guidelines for Windpower Projects (MNRF, 2011).	Conducted concurrently with the ELC and botanical assessment or the Tree Inventory.	Pedestrian surveys within the PSA, subject to land access permission.

Notes:

1. In instances where Early Access Agreements have not been obtained in advance of the first round of surveys, the surveys will be completed roadside, as applicable.
2. The Project Study Area (PSA) is defined as 120 m from each side of the Hydro One existing easement centreline and the Hawthorne and Orleans transformer stations.

Appendix C

Tables

Table C-1: Background Review Resources

Legislation / Policy	Guidelines and Supporting Documents
FEDERAL GOVERNMENT OF CANADA	
Migratory Birds Convention Act, 1994	Environment and Climate Change Canada (ECCC)
Species at Risk Act, 2002	Federal Species at Risk Public Registry
Fisheries Act, 1985	Fisheries and Oceans Canada (DFO) Aquatic Species at Risk Map
PROVINCE OF ONTARIO	
Planning Act, 1990: Provincial Planning Statement (2024)	Policies within Sections 4.1 and 4.2 related to natural heritage and water resource features
	Geospatial Ontario data • NHIC 1 km grid data (Species of Conservation Concern) • Natural heritage features (ANSIs, Woodlands, Wetlands).
	Natural Heritage Reference Manual, Second Edition, March 2010
	Ecological Land Classification for Southern Ontario, First Approximation, 1998, and 2008 ELC Codes
Endangered Species Act, 2007	Ministry of the Environment, Conservation and Parks (MECP) Species at Risk in Ontario (SARO) List (O. Reg. 230/08)
	Geospatial Ontario data • NHIC 1 km grid data (Species at Risk)
	Ontario Breeding Birds Atlas (OBBA)
	Christmas Bird Count (CBC)
	Ontario Reptile and Amphibian Atlas
	iNaturalist
	eBird

Legislation / Policy	Guidelines and Supporting Documents
CITY OF OTTAWA	
City of Ottawa Official Plan (2021)	Schedules B9, C11, C15 City of Ottawa's "geoOttawa" online mapping service
	Environmental Impact Study Guidelines (2023)
	Protocol for Wildlife Protection During Construction (2022)
CONSERVATION AUTHORITY	
Conservation Authorities Act, 1990: Ontario Regulation 41/24	Rideau Valley Conservation Authority (RVCA) Regulation Limit mapping
NATIONAL CAPITAL COMMISSION	
National Capital Commission SAR Occurrence Database	SAR occurrence records, received from NCC, October 2024

Table C-2: Species of Conservation Concern to Occur in the Vicinity of the Local Study Area

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
BIRDS							
Haliaeetus leucocephalus	Bald Eagle	---	SC	S2N,S4B	CBC	Require large continuous area of deciduous or mixed woods around large lakes, rivers; require area of 255 ha for nesting, shelter, feeding, roosting; prefer open woods with 30 to 50% canopy cover; nest in tall trees 50 to 200 km from shore; require tall, dead, partially dead trees within 400 m of nest for perching; sensitive to toxic chemicals.	NO
Hirundo rustica	Barn Swallow	THR	SC	S4B	OBBA, NCC	Farmlands or rural areas; cliffs, caves, rock niches; buildings or other man-made structures for nesting; open country near body of water.	YES
Chlidonias niger	Black Tern	---	SC	S3B	OBBA	Wetlands, coastal or inland marshes; large cattail marshes, marshy edges of rivers, lakes or ponds, wet open fens, wet meadows; returns to same area to nest each year in loose colonies; must have shallow (0.5 to 1 m deep) water and areas of open water near nests; requires marshes >20 ha in size; feeds over adjacent grasslands for insects; also feeds on fish, crayfish and frogs.	NO

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Cardellina canadensis	Canada Warbler	THR	SC	S4B	NHIC, OBBA, NCC	An interior forest species; dense, mixed coniferous, deciduous forests with closed canopy, wet bottomlands of cedar or alder; shrubby undergrowth in cool moist mature woodlands; riparian habitat usually requires at least 30 ha.	NO
Chordeiles minor	Common Nighthawk	SC	SC	S4B	OBBA	Open ground; clearings in dense forests; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs.	NO
Contopus virens	Eastern Wood-pewee	SC	SC	S4B	NCC, NHIC, OBBA	Open, deciduous, mixed or coniferous forest; predominated by oak with little understory; forest clearing, edges; farm woodlots, parks.	YES
Coccothraustes vespertinus	Evening Grosbeak	SC	SC	S4	CBC	Coniferous or mixed forests; deciduous tree stands; parks, orchards. It breeds in coniferous forests across northern Ontario.	NO (no breeding habitat)
Vermivora chrysoptera	Golden-winged Warbler	THR	SC	S4B	NHIC	Early successional habitat; shrubby, grassy abandoned fields with small deciduous trees bordered by low woodland and wooded swamps; alder bogs; deciduous, damp woods; shrubbery clearings in deciduous woods with saplings and grasses; brier-woodland edges; requires >10 ha of habitat. There are no known breeding records in the Ottawa area.	NO (no breeding habitat)

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Ammodramus savannarum	Grasshopper Sparrow	SC	SC	S4B	NCC, NHIC	It lives in open grassland areas with well-drained, sandy soil. It will also nest in hayfields and pasture, as well as alvars, prairies and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated. Its nests are well-hidden in the field and woven from grasses in a small cup-like shape. The Grasshopper Sparrow is a short-distance migrant and leaves Ontario in the fall to migrate to the southeastern United States and Central America for the winter.	YES
Contopus cooperi	Olive-sided Flycatcher	THR	SC	S4B	NCC	The Olive-sided flycatcher is most often found along natural forest edges and openings. It will use forests that have been logged or burned, if there are ample tall snags and trees to use for foraging perches. Olive-sided flycatchers' breeding habitat usually consists of coniferous or mixed forest adjacent to rivers or wetlands. In Ontario, Olive-sided flycatchers commonly nest in conifers such as White and Black Spruce, Jack Pine and Balsam Fir.	NO (no breeding habitat)
Falco peregrinus	Peregrine Falcon	SC	SC	S3B	CBC	Rock cliffs, crags, especially situated near water; tall buildings in urban centres; threatened by chemical contamination; reintroduction efforts have been attempted in numerous locations throughout Ontario.	NO

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Hylocichla mustelina	Wood Thrush	THR	SC	S4B	NCC, NHIC, OBBA	Carolinian and Great Lakes-St. Lawrence forest zones; undisturbed moist mature deciduous or mixed forest with deciduous sapling growth; near pond or swamp; hardwood forest edges; must have some trees higher than 12m.	YES
HERPTILES							
Sternotherus odoratus	Eastern Musk Turtle	SC	SC	S3	OHA	Aquatic, except when laying eggs; shallow slow moving water of lakes, streams, marshes and ponds; hibernate in underwater mud, in banks or in muskrat lodges; eggs are laid in debris or under stumps or fallen logs at waters edge; often share nest sites; sometimes congregate at hibernation sites; not readily observed.	YES
Thamnophis sauritus	Eastern Ribbonsnake (Great Lakes population)	SC	SC	S4	OHA	Sunny grassy areas with low dense vegetation near bodies of shallow permanent quiet water; wet meadows, grassy marshes or sphagnum bogs; borders of ponds, lakes or streams; hibernates in groups.	YES
Chrysemys picta marginata	Midland Painted Turtle	SC	---	S4	NCC	The species are found in soft bottomed ponds, marshes, lakes and slow-moving creeks. They are often found basking along shorelines, logs and rocks.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Lampropeltis triangulum	Milksnake	SC	Not at Risk	S3	NHIC	Farmlands, meadows, hardwood or aspen stands; pine forest with brushy or woody cover; river bottoms or bog woods; hides under logs, stones, or boards or in outbuildings; often uses communal nest sites.	YES
Graptemys geographica	Northern Map Turtle	SC	SC	S3	OHA	This species is found in rivers and lakeshores, with a preference for slow moving currents, muddy bottoms, and abundant aquatic vegetation. Through spring and summer, it needs suitable basking sites on emergent rocks and fallen trees, with an unobstructed view from which it can drop immediately into the water if startled. Northern Map Turtle require high-quality water that supports the female's mollusc prey. In winter, individuals hibernate on the bottom of deep, slow-moving sections of river.	YES
Chelydra serpentina	Snapping Turtle	SC	SC	S3	NHIC, OHA, NCC	Permanent, semi-permanent fresh water; marshes, swamps or bogs; rivers and streams with soft muddy banks or bottoms; often uses soft soil or clean dry sand on south-facing slopes for nest sites; may nest at some distance from water; often hibernate together in groups in mud under water; home range size ~28 ha.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Pseudacris triseriata pop. 1	Western Chorus Frog (Great Lakes / St. Lawrence - Canadian Shield Population)	THR	---	S3	OHA	The species is often found along forest opening and woodland ponds. They are also found in wet meadows, shallow marshes, swamps, and ephemeral ponds. Breeding habitat requires fishless ponds with at least 10 cm of depth. This often includes ditches, and ephemeral ponds.	YES
PLANTS							
Polygala sanguinea	Blood-red Milkwort	---	---	S3	NCC, NHIC, iNaturalist	Found in moist grasslands and fields, bogs and fens. There are records of this species in Mer Bleue.	YES
Plagiothecium latebricola	Lurking Leskea	---	---	S2	NHIC, University of Michigan Herbarium	Species grows on rotting stumps and sedge and fern tussocks found in deciduous swamps and marshes that flood seasonally. There is a 1969 record from Mer Bleue near Ridge Road (University of Michigan herbarium).	YES
Carex folliculata	Northern Long Sedge	---	---	S3	NHIC	Found in swamps, marsh edges, wet meadows, riparian areas as well as spruce-fir high altitude woodlands. There is a record from Mer Bleue (Brunton, 2005, Flora of Ottawa).	YES
Neottia bifolia	Southern Twayblade	---	---	S1	NHIC	Often found in sphagnum bogs, moist woods and forested swamps. Associate plants include Cinnamon Fern and Royal Fern. There is a record from Mer Bleue as syn. Listera australis (Brunton, 2005, Flora of Ottawa).	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Pterospora andromedea	Woodland Pinedrops	---	---	S2	NHIC	Found in deep humus of conifer forests. There is a record from Green's Creek (Brunton, 2005, Flora of Ottawa).	YES
LICHEN							
Steinia geophana	A Lichen	---	---	S1	NHIC	A colonizer of short-lived and transient niches including disturbed soil, bones, decaying wood, or over mosses, usually in metal-enriched habitats (including anthropogenic) as well as old forests. Reported from a site near Ottawa by Brodo (2001) under a hydro transmission line.	YES
Heterodermia hypoleuca	A Lichen (Cupped Fringe Lichen)	---	---	S1	NCC, NHIC	Found on hardwood trees such as ash, elms, maples and oaks. Found on rocks in portions of its range.	YES
Leptogium corticola	Blistered Jellyskin	---	---	S1	NCC, NHIC	Species occurs in moist woods on the base of hardwoods and rocks.	YES
INSECTS							
Cordulegaster obliqua	Arrowhead Spiketail	---	---	S2	NHIC	Species often found in shallow forest streams that are often ephemeral, clean and stable. Substrate is silty with a vegetated riparian area.	YES
Stylurus notatus	Elusive Clubtail	---	---	S2	NCC, NHIC	Found in large, clear sandy or gravelly rivers that are large and clean. The habitat usually has a slow to moderate current.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Danaus plexippus	Monarch	END	SC	S2N,S4B	OBA, NCC	Monarch are commonly found in meadow habitats, abandoned farmland and roadsides where milkweed and wildflowers (such as goldenrods, asters and purple loosestrife) are abundant	YES

1 – Status on Schedule 1 of the SARA, 2002; 2 – SAR in Ontario List under the provincial ESA, 2007; 3 – Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperilled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; 4 – NHIC = MNR Natural Heritage Information Centre, OBBA = Ontario Breeding Bird Atlas, OHA = Ontario Herpetofaunal Atlas, OBA = Ontario Butterfly Atlas; CBC = Christmas Bird Count; 5 – Significant Wildlife Habitat Technical Guide, Appendix E (MNR, 2000), MNR Species at risk in Ontario (https://www.ontario.ca/page/species-risk), Missouri Botanical Garden (https://www.missouribotanicalgarden.org/), Ontario Freshwater Fishes Life History Database (http://www.ontario fishes.ca), NatureServe Explorer (https://explorer.natureserve.org), Lady Bird Johnson Wildflower Center (wildflower.org), Illinois Wildflowers (https://www.illinoiswildfloers.info), Dragonflies of Northern Virginia (http://dragonfliesnva.com); Minnesota Wildflowers (https://www.minnesotawildflowers.info), Ontario Nature (ontarionature.org).

Table C-3: SAR with the Potential to Occur within the Vicinity of the Local Study Area

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
BIRDS							
Riparia riparia	Bank Swallow	THR	THR	S4B	OBBA	Sand, clay or gravel river banks or steep riverbank cliffs; lakeshore bluffs of easily crumbled sand or gravel; gravel pits, road-cuts, grassland or cultivated fields that are close to water; nesting sites are limiting factor for species presence.	YES
Dolichonyx oryzivorus	Bobolink	THR	THR	S4B	NHIC, OBBA	Large, open expansive grasslands with dense ground cover; hayfields, meadows or fallow fields; marshes; requires tracts of grassland >50 ha.	YES
Chaetura pelagica	Chimney Swift	THR	THR	S4B,S4N	NCC, OBBA	Commonly found in urban areas near buildings and man-made structures with vertical faces, of which are used as surfaces for nest-building. Nests and roosts are most common in chimneys with preference for larger chimneys with open tops. This species will also nest and roost in hollow trees and crevices of rock cliffs. Nesting and roosting sites are situated near areas of water with an abundance of insects for feeding.	YES
Sturnella magna	Eastern Meadowlark	THR	THR	S4B	NCC, NHIC, OBBA	Open, grassy meadows, farmland, pastures, hayfields or grasslands with elevated singing perches; cultivated land and weedy areas with trees; old orchards with adjacent, open grassy areas >10 ha in size.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Ixobrychus exilis	Least Bittern	THR	THR	S4B	NHIC, OBBA, NCC	Deep marshes, swamps, bogs; marshy borders of lakes, ponds, streams, ditches; dense emergent vegetation of cattail, bulrush, sedge; nests in cattails; intolerant of loss of habitat and human disturbance.	NO
Melanerpes erythrocephalus	Red-headed Woodpecker	END	END	S3	NHIC	Open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; feeds on insects and stores nuts or acorns for winter; loss of habitat is limiting factor; requires cavity trees with at least 40cm dbh; require about 4 ha for a territory.	YES
Asio flammeus	Short-eared Owl	SC	THR	S2N,S4B	CBC, NCC, NHIC, OBBA	Grasslands, open areas or meadows that are grassy or bushy; marshes, bogs or tundra; both diurnal and nocturnal habits; ground nester; destruction of wetlands by drainage for agriculture is an important factor in the decline of this species; home range 25 -125 ha; requires 75-100 ha of contiguous open habitat.	NO

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
HERPTILES							
Emydoidea blandingii	Blanding's Turtle	THR	THR	S3	NHIC, OHA, NCC	Shallow water marshes, bogs, ponds or swamps, or coves in larger lakes with soft muddy bottoms and aquatic vegetation; basks on logs, stumps, or banks; surrounding natural habitat is important in summer as they frequently move from aquatic habitat to terrestrial habitats; hibernates in bogs; not readily observed.	NO
MAMMALS							
Lasiurus borealis	Eastern Red Bat	---	END	S4	MWH	Roosts in leafy trees such as elm and maple but also may use conifers; forage habitat includes over streams, near lights and along field and forest edges; migrates south in winter; prefers to feed over wetlands or open fields; a solitary species.	YES
Myotis leibii	Eastern Small-footed Myotis	---	END	S2S3	MWH	Roosts in caves, mine shafts, crevices or buildings that are in or near woodland; hibernates in cold dry caves or mines; maternity colonies in caves or buildings; hunts in forests.	YES
Urocyon cinereoargenteus	Gray Fox	THR	THR	S1	MWH	Hardwood forests with a mix of fields and woods; swamps; wooded, brushy or rocky habitats; woodland farmland edge; old fields with thickets; dens in hollow log or tree; individual has numerous winter dens throughout its range which is > 40 ha.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Lasiurus cinereus	Hoary Bat	---	END	S4	MWH	Roosts in trees with dense leaf foliage, forest edges or hedgerows; also in city parks; do not use caves ; feeds over water or open areas; migrates south in winter; a solitary species, only forming groups while hunting.	YES
Myotis lucifugus	Little Brown Myotis	END	END	S4	MWH	Uses caves, quarries, tunnels, hollow trees or buildings for roosting; winters in humid caves; maternity sites in dark warm areas such as attics and barns; feeds primarily in wetlands, forest edges.	YES
Myotis septentrionalis	Northern Myotis	END	END	S3	MWH	Hibernates during winter in mines or caves; during summer males roost alone and females form maternity colonies of up to 60 adults; roosts in houses, manmade structures but prefers hollow trees or under loose bark; hunts within forests, below canopy.	YES
Lasionycteris noctivagans	Silver-haired Bat	---	END	S4	MWH	Prefers temperate, hardwoods with ponds or streams nearby; roosts in tree foliage or hollow snags, buildings or caves; somewhat solitary except for small maternity colonies usually found in hollow trees; found in forested areas near watercourses; migrates south in winter.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
Pipistrellus subflavus	Tri-colored Bat	END	END	S3?	MWH	Can be found in a variety of forested habitats. They form day roosts and maternity colonies in older forest and occasionally in barns or other structures, and overwinter in caves. They forage over water and along streams in the forest.	YES
PLANTS							
Castanea dentata	American Chestnut	END	END	S2	NCC	The American Chestnut prefers dryer upland deciduous forests with sandy, acidic to neutral soils. In Ontario, it is only found naturally occurring in the Carolinian Zone between Lake Erie and Lake Huron.	NO
Fraxinus nigra	Black Ash	---	END	S4	NHIC	The species grows alongside Red Oak, Black Cherry, Sugar Maple, American Beech and other deciduous tree species.	YES
Juglans cinerea	Butternut	END	END	S2?	NCC, NHIC	Predominantly a wetland species found in swamps, floodplains and fens.	YES
Platanthera leucophaea	Eastern Prairie Fringed-orchid	END	END	S2	MNR SAR in Area	The Eastern Prairie Fringed-orchid grows in wetlands, fens, swamps and tallgrass prairie. It has been found in ditches and railroad rights of way. Known from tamarack swamps in the Ottawa area.	YES

Scientific Name	Common Name	SARA[1]	ESA[2]	Srank[3]	Information Source[4]	Preferred Habitat[5]	Potential to Occur within the LSA
MOLLUSCS							
Obovaria olivaria	Hickorynut	END	END	S1?	NCC, NHIC	Hickorynuts live on the sandy beds in large, wide, deep rivers – usually more than two or three metres deep – with a moderate to strong current.	NO

1 – Status on Schedule 1 of the SARA, 2002; 2 – SAR in Ontario List under the provincial ESA, 2007; 3 – Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperilled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; 4 – NHIC = MNR Natural Heritage Information Centre, MNR SAR in Area = SAR by Municipality, MWH = Digital Distribution Maps of the Mammals of the Western Hemisphere - version 3.0, OBBA = Ontario Breeding Bird Atlas, OHA = Ontario Herpetofaunal Atlas, OBA = Ontario Butterfly Atlas; CBC = Christmas Bird Count; 5 – Significant Wildlife Habitat Technical Guide, Appendix E (MNR, 2000), MNR Species at risk in Ontario (https://www.ontario.ca/page/species-risk), Missouri Botanical Garden (https://www.missouribotanicalgarden.org/), Ontario Freshwater Fishes Life History Database (http://www.ontario fishes.ca), NatureServe Explorer (https://explorer.natureserve.org), Lady Bird Johnson Wildflower Center (wildflower.org), Illinois Wildflowers (https://www.illinoiswildfloers.info), Dragonflies of Northern Virginia (http://dragonfliesnva.com); Minnesota Wildflowers (https://www.minnesotawildflowers.info), Ontario Nature (ontarionature.org).

Table C-4: 2024-2025 Field Program Survey Dates, Times, and Weather

Date	Survey	Time (24 Hour)	Weather Conditions[1]	Surveyor Name
November 8, 2024	Windshield Survey	9:00 – 13:30	9-11°C, wind speed: 3-5, cloud cover: 100%, light to moderate precipitation. No snow cover.	Nicole Bone and Calvin Blewitt
April 15, 2025	Site Reconnaissance	11:00 – 14:30	8-9°C, wind speed: 2-3, cloud cover: 75-100%, no precipitation to moderate precipitation	Nicole Bone
June 3, 2025	Breeding Bird Round 1	07:15 – 11:00	11-17°C, wind speed: 1, cloud cover: 0-95%, no precipitation	Nicole Bone
June 20, 2025	Breeding Bird Round 2	06:15 – 8:30	14-15°C, wind speed: 3, cloud cover: 75-100%, no precipitation	Nicole Bone
July 4, 2025	Breeding Bird Round 3	07:15 – 9:00	11-16°C, wind speed: 0, cloud cover: 0%, no precipitation	Steve Greidanus
July 4, 2025	Ecological Land Classification, Botanical Assessment	11:00 – 12:15	21-23°C, wind speed: 1, cloud cover: 0%	Calvin Blewitt
July 11, 2025	Fish and Fish Habitat Assessments (Ramsay Creek, and west of Page Road)	09:15-15:15	25-29°C, wind speed: 1, cloud cover: 0%, no precipitation	David Praskey
July 30, 2025	Ecological Land Classification, Botanical Assessment	-	-	Steve Greidanus
July 31, 2025	Ecological Land Classification, Botanical Assessment	-	-	Steve Greidanus
August 1, 2025	Ecological Land Classification, Botanical Assessment	-	-	Steve Greidanus

[1]Wind speed was measured using the Beaufort Wind Scale, where 0 = Calm, 1 – Light Air, 2 = Light Breeze, 3 = Gentle Breeze.

Table C-5: Breeding Bird Survey Results

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Breeding Evidence[4]
BBS1					
Carduelis tristis	American Goldfinch	---	---	S5B	S, P
Setophaga ruticilla	American Redstart	---	---	S5B	S
Turdus migratorius	American Robin	---	---	S5B	S, A
Toxostoma rufum	Brown Thrasher	---	---	S4B	S
Bombycilla cedrorum	Cedar Waxwing	---	---	S5B	S
Spizella passerina	Chipping Sparrow	---	---	S5B	S
Geothlypis trichas	Common Yellowthroat	---	---	S5B	S
Phalacrocorax auritus	Double-crested Cormorant	---	---	S5B	N/A
Picoides pubescens	Downy Woodpecker	---	---	S5	S
Dumetella carolinensis	Gray Catbird	---	---	S4B	S
Myiarchus crinitus	Great Crested Flycatcher	---	---	S4B	S
Passerina cyanea	Indigo Bunting	---	---	S4B	S
Cardinalis cardinalis	Northern Cardinal	---	---	S5	S
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	S, P, A
Melospiza melodia	Song Sparrow	---	---	S5B	S, P
Melospiza georgiana	Swamp Sparrow	---	---	S5B	S

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Breeding Evidence[4]
Setophaga petechia	Yellow Warbler	---	---	S5B	S
BBS8					
Corvus brachyrhynchos	American Crow	---	---	S5B	S
Carduelis tristis	American Goldfinch	---	---	S5B	S, P
Spizella passerina	Chipping Sparrow	---	---	S5B	S
Quiscalus quiscula	Common Grackle	---	---	S5B	H
Geothlypis trichas	Common Yellowthroat	---	---	S5B	S
Sturnus vulgaris	European Starling	---	---	SNA	N/A
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	S, A
Melospiza melodia	Song Sparrow	---	---	S5B	S
Melospiza georgiana	Swamp Sparrow	---	---	S5B	S
Setophaga petechia	Yellow Warbler	---	---	S5B	S
BBS9					
Carduelis tristis	American Goldfinch	---	---	S5B	S, H, A
Turdus migratorius	American Robin	---	---	S5B	S
Geothlypis trichas	Common Yellowthroat	---	---	S5B	S
Sturnus vulgaris	European Starling	---	---	SNA	H
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	S, A

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Breeding Evidence[4]
Melospiza melodia	Song Sparrow	---	---	S5B	S
Tachycineta bicolor	Tree Swallow	---	---	S4B	S
Cathartes aura	Turkey Vulture	---	---	S5B	N/A
Setophaga petechia	Yellow Warbler	---	---	S5B	S
BBS10					
Corvus brachyrhynchos	American Crow	---	---	S5B	S
Carduelis tristis	American Goldfinch	---	---	S5B	S
Setophaga ruticilla	American Redstart	---	---	S5B	S
Turdus migratorius	American Robin	---	---	S5B	S, A
Quiscalus quiscula	Common Grackle	---	---	S5B	---
Geothlypis trichas	Common Yellowthroat	---	---	S5B	S
Sturnus vulgaris	European Starling	---	---	SNA	F/O
Cardinalis cardinalis	Northern Cardinal	---	---	S5	---
Colaptes auratus	Northern Flicker	---	---	S4B	S, F/O
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	S, A, CF
Larus delawarensis	Ring-billed Gull	---	---	S5B,S4N	F/O
Melospiza melodia	Song Sparrow	---	---	S5B	S
Setophaga petechia	Yellow Warbler	---	---	S5B	S

[1]Federal Species at risk Act, 2002.

[2]Provincial Endangered Species Act, 2007.

[3]Provincial Conservation Ranking (SRank) where S5 = secure, S4 = apparently secure SNA = A conservation status rank is not applicable because the species is not a suitable target for conservation activities, B = breeding, and N = non-breeding.

[4]Breeding Bird Codes from Breeding Bird Atlas of Ontario (Birds Canada, 2021)

Observed

X Species observed during its breeding season, but NOT in suitable nesting habitat (no breeding evidence found).

F/O Flyover

Possible

H Species observed in suitable nesting habitat during its breeding season

S Singing male or adult producing other sounds associated with breeding (e.g., calls or drumming) in suitable nesting habitat during the species' breeding season

Probable

P Pair observed in suitable nesting habitat during the species' breeding season

T Presumed territory based on the presence of an adult bird (usually singing, but not necessarily so), in the same suitable nesting habitat patch on at least two visits, one week or more apart, during the species' breeding season

V Bird Visiting a probable nest site in suitable nesting habitat during the species' breeding season

A Agitated behavior or alarm calls of an adult in suitable nesting habitat during the species' breeding season

Confirmed

NB Nest building, including the carrying of nesting material, by all species except wrens and woodpeckers

AE Adult Entering, occupying, or leaving a nest site (visible or not) or whose behavior suggests the presence of an occupied nest.

CF Adult Carrying Food for young

Table C-6: Incidental Wildlife Observed within the Project Study Area

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]
Mammals				
Canis latrans	Coyote	---	---	S5
Danaus plexippus	Monarch	END	SC	S2N, S4B

[1]Federal Species at risk Act, 2002 where THR = Threatened, SC = special concern.

[2]Provincial Endangered Species Act, 2007 where SC = special concern.

[3]Provincial Conservation Ranking (SRank) where S5 = secure, S4 = apparently secure, S2 = imperiled, B = breeding, and N = non-breeding.

Appendix D

Aquatic Data Summary Table

Table D-1: Aquatic Assessment Summary

Waterbody Name	Survey Site Identifier	Survey Coordinates	Aquatic Assessment Data									Photo Appendix
			Watercourse Type	Substrate Type	Average Wetted Width (m)	Average Wetted Depth (m)	Average Bankfull Width (m)	Average Bankfull Depth (m)	Watercourse Morphology	Riparian Cover	Comments	Fish Habitat	
Mud Creek (west of Brian Coburn Boulevard stormwater ponds).	Upstream (eastern) section of reach	45.434705, -75.520824	Permanent	Riprap located from box culvert to approximately 30 m downstream. Clay is dominant substrate continuing downstream.	2	0.15	4.5	0.7	• Run: 1005	Riparian cover immediately adjacent to the bank included Reed Canary Grass (Phalaris arundinacea) as well as other grasses and forbs. Other plants present included Spotted Joe Pye Weed (*Eutrochium maculatum var. maculatum*), Wild Carrot (*Daucus carota*), Staghorn Sumac (*Rhus hirta*) and Goldenrod (*Solidago sp.*).	Watercourse outflows from stormwater ponds through a box culvert and flows west.	Fish species observed during assessment. Little habitat documented, with some overhanging vegetation present. Narrow-leaved Cattail (*Typha angustifolia*) growing between riprap. Fish generally observed downstream of riprap.	Photos 22, 23
	Centre of reach	45.434614, -75.522067		• Clay: 25% • Silt: 60% • Sand: 5% • Gravel: 10%	6	1	8.25	2	• Pool: 100%		Section of watercourse reach located within beaver pond to beaver dam. Beaver dam is well established and may act as a fish barrier.	In-stream cover generally restricted to dead trees located in watercourse and some minimal riparian cover. Fish observed within section of reach.	
	Downstream (western) section of reach	45.434586, -75.522658		• Clay: 50% • Silt: 5% • Sand: 5% • Gravel: 40%	2	0.25	5	11	• Run: 60% • Flat: 20% • Pool: 20%		Section of reach located downstream of beaver dam. Some sinuosity present with moderate to severe erosion and deposition and is channelized.	Fish habitat features included instream and overhanging woody debris, vascular macrophytes (emergent and rooted floating) and undercut banks. Fish observed within section of reach.	
Ramsay Creek (reach in provincial lands in upstream area and transitions to being within federal lands further downstream).	Upstream (eastern) section of reach	45.393023, -75.593725	Permanent	• Silt: 90% • Sand: 10%	5.9	17.9	7.9	2.5	• Flat: 100%	Riparian cover immediately adjacent to the bank consisted of meadow species including Goldenrod and Jerusalem Artichoke. Reed Canary Grass was present in areas. A scrubland community was found approximately 1.5 m away from the bank. Species in the scrubland community consisted of Green Ash, Staghorn Sumac and Manitoba Maple (*Acer negundo*).	Creek is channelized with steep banks. Erosion gradually taking place in-stream allowing for evolving channel sinuosity. No signs of recent severe erosion.	Fish habitat features included instream and overhanging woody debris. Fish habitat also included emergent and rooted floating vascular macrophytes (Burreed (*Sparganium sp.*) and Grassy Pondweed (*Potamogeton gramineus*)). Due to turbidity, fish were difficult to detect. However, strong indicators of fish habitat – highly likely fish are present in watercourse.	Photos 20, 21
	Centre of reach	45.393452, -75.594221		• Silt: 80% • Sand: 10% • Boulder: 5% (Riprap found suggesting erosion issues.) • Cobbles: 5%	4.5	0.9	7.5	1.9	• Flat: 100%			Fish habitat included emergent and rooted floating vascular macrophytes (Broad-leaved Arrowhead (*Sagittaria latifolia*) and Flowering-rush (*Butomus umbellatus*)). Due to turbidity, fish were difficult to detect. However, strong indicators of fish habitat – highly likely fish are present in watercourse.	
	Downstream (western) section of reach	45.393443, -75.594919		• Silt: 90% • Sand: 10%	4.5	0.9	7.5	1.9	• Flat: 100%			Fish habitat included emergent and rooted floating vascular macrophytes (Broad-leaved Arrowhead and Grassy Pondweed). Due to turbidity, fish were difficult to detect. However, strong indicators of fish habitat – highly likely fish are present in watercourse.	

Appendix E

Site Photographs

Description	Photograph
Photograph 1 July 4, 2025 Representative photo of the Dry – Fresh White Pine – Sugar Maple Mixed Forest (FOMM2-2) community. Looking along hydro corridor towards the community.	
Photograph 2 July 30, 2025 Representative photo of the Mixed Forest (FOM) community. Looking south towards the community.	

Description	Photograph
Photograph 3 July 4, 2025 Representative photo of the Fresh – Moist Deciduous Woodland (WODM5)	
Photograph 4 July 30, 2025 Representative photo of the Fresh – Moist Poplar Deciduous Woodland (WODM5-1)	

Description	Photograph
Photograph 5 July 30, 2025 Representative photo of the Mixed Woodland (WOM) community. Looking along hydro corridor towards the community.	
Photograph 6 August 1, 2025 Representative photo of the THD community.	

Description	Photograph
Photograph 7 August 1, 2025 Representative photo of the THDM2 community.	
Photograph 8 July 4, 2025 Representative photo of the Dry – Fresh Deciduous Regeneration Thicket (THDM4) community. Looking towards the community within the hydro corridor.	

Description	Photograph
Photograph 9 November 8, 2024 Representative photo of the Mixed Thicket (THM) community, looking west.	
Photograph 10 August 1, 2025 Representative photo of the Dry – Fresh Mixed Meadow (MEMM3)	

Description	Photograph
Photograph 11 July 31, 2025 Representative photo of the Dry – Fresh Mixed Meadow (MEMM3) community. Looking within community along hydro corridor.	
Photograph 12 July 31, 2025 Representative photo of the Dry – Fresh Mixed Meadow/ Deciduous Shrub Thicket (MEMM3/ THDM2) Complex. Looking within community along hydro corridor.	

Description	Photograph
Photograph 13 August 1, 2025 Representative photo of the Fresh – Moist Mixed Meadow (MEMM4) community. Looking east within community.	
Photograph 14 November 8, 2024 Representative photo of the stormwater management ponds located east of Pagé Road and north Brian Coburn Boulevard.	

Description	Photograph
Photograph 15 August 1, 2025 Representative photo of the Commercial and Institutional community (CVC). Looking south towards hydro corridor	
Photograph 16 August 1, 2025 Representative photo of the Deciduous Forest community (FOD). Looking south from Brian Coburn Blvd.	

Description	Photograph
Photograph 17 July 4, 2025 Representative photo of the cellular tower Transportation and Utilities (CVI) community. Looking west towards hydro corridor.	
Photograph 18 November 8, 2024 Representative photo of the Hydro One Orleans Station (CVI-4).	

Description	Photograph
Photograph 19 July 30, 2025 Representative photo of the Constructed Greenlands community (CGL) adjacent to Brian Coburn Blvd.	
Photograph 20 July 11, 2025 Ramsay Creek Representative Photo of Channel – Upstream (southeast)	

Description	Photograph
Photograph 21 July 11, 2025 Ramsay Creek Representative Photo of Channel – Downstream (northwest)	
Photograph 22 July 11, 2025 Mud Creek (west of stormwater ponds) Representative Photo of Channel – Upstream (east)	

Description	Photograph
Photograph 23 July 11, 2025 Mud Creek (west of stormwater ponds) Representative Photo of Channel – Downstream (west)	

Appendix F

Botanical List

Table F- 1: Botanical Species identified within the Project Study Area.

Scientific Name	Common Name	*SARA* Status[1]	*ESA* Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority Ranking[6]	Noxious
Acer negundo	Manitoba Maple	---	---	S5	0	-2	C2	---
Acer rubrum	Red Maple	---	---	S5	4	0	---	---
Acer saccharum	Sugar Maple	---	---	S5	4	3	---	---
Agrostis gigantea	Redtop	---	---	SNA	---	0	---	---
Arctium minus	Common Burdock	---	---	SNA	---	5	---	---
Asclepias syriaca	Common Milkweed	---	---	S5	0	5	---	---
Betula papyrifera	Paper Birch	---	---	S5	2	2	---	---
Calamagrostis canadensis	Bluejoint Reedgrass	---	---	S5	4	-5	---	---
Cornus alternifolia	Alternate-leaved Dogwood	---	---	S5	6	5	---	---
Cornus racemosa	Gray Dogwood	---	---	S5	2	-2	---	---
Daucus carota	Wild Carrot	---	---	SNA	---	5	C4	---
Diervilla lonicera	Northern Bush-honeysuckle	---	---	S5	5	5	---	---
Dryopteris sp.	Wood Fern species	---	---	---	---	---	---	---
Erigeron philadelphicus	Philadelphia Fleabane	---	---	S5	1	-3	---	---
Eutrochium maculatum var. maculatum	Spotted Joe Pye Weed	---	---	S5	3	-5	---	---
Fagus grandifolia	American Beech	---	---	S4	6	3	---	---
Frangula alnus	Glossy Buckthorn	---	---	SNA	---	-1	C1	Y
Fraxinus pennsylvanica	Green Ash	---	---	S4	3	-3	---	---
Helianthus tuberosus	Jerusalem Artichoke	---	---	SU	---	0	---	---
Impatiens capensis	Spotted Jewelweed	---	---	S5	4	-3	---	---
Juncus tenuis	Path Rush	---	---	S5	0	0	---	---
Larix laricina	American Larch	---	---	S5	7	-3	---	---

Scientific Name	Common Name	*SARA* Status[1]	*ESA* Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority Ranking[6]	Noxious
Leersia oryzoides	Rice Cutgrass	---	---	S5	3	-5	---	---
Lythrum salicaria	Purple Loosestrife	---	---	SNA	---	-5	C1	---
Melilotus albus	White Sweet-clover	---	---	SNA	---	3	C1	---
Oenothera sp.	Evening Primrose species	---	---	---	---	---	---	---
Phalaris arundinacea	Reed Canary Grass	---	---	S5	0	-4	C1	---
Phleum pratense	Common Timothy	---	---	SNA	---	3	---	---
Phragmites australis ssp. australis	European Common Reed	---	---	SNA	---	-4	C1	---
Picea glauca	White Spruce	---	---	S5	6	3	---	---
Pinus strobus	Eastern White Pine	---	---	S5	4	3	---	---
Plantago major	Common Plantain	---	---	S5	---	-1	---	---
Poa pratensis ssp. pratensis	Kentucky Bluegrass	---	---	S5	0	1	C2	---
Populus tremuloides	Trembling Aspen	---	---	S5	2	0	---	---
Pteridium aquilinum	Bracken Fern	---	---	S5	2	3	---	---
Rhus hirta	Staghorn Sumac	---	---	S5	1	5	---	---
Rudbeckia hirta var. pulcherrima	Black-eyed Susan	---	---	S5	---	---	---	---
Rumex crispus	Curly Dock	---	---	SNA	---	-1	---	---
Salix petiolaris	Meadow Willow	---	---	S5	3	-4	---	---
Scirpus sp.	Bulrush species	---	---	---	---	---	---	---
Solidago canadensis var. canadensis	Canada Goldenrod	---	---	S5	1	3	---	---
Sonchus arvensis ssp. arvensis	Field Sow-thistle	---	---	SNA	---	1	---	Y
Thuja occidentalis	Eastern White Cedar	---	---	S5	4	-3	---	---
Trifolium repens	White Clover	---	---	SNA	---	2	---	---
Tussilago farfara	Colt's-foot	---	---	SNA	---	3	C2	Y
Typha latifolia	Broad-leaved Cattail	---	---	S5	3	-5	---	---

Scientific Name	Common Name	*SARA* Status[1]	*ESA* Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority Ranking[6]	Noxious
Ulmus americana	American Elm	---	---	S5	3	-2	---	---
Verbascum thapsus	Common Mullein	---	---	SNA	---	5	---	---
Vicia cracca	Tufted Vetch	---	---	SNA	---	5	---	---
Vitis riparia	Riverbank Grape	---	---	S5	0	-2	---	---

[1] Status identified by the Committee on the Status of Endangered Wildlife in Canada under the federal Species at risk Act, 2002;

[2] Species at risk in Ontario List under the provincial Endangered Species Act, 2007;

[3]Provincial Conservation Ranking (SRank) where S5 = secure, S4 = apparently secure, S3 = vulnerable, S2 = imperiled, S1 = critically imperiled, SX = extirpated, SH = possibly extirpated, SNA = A conservation status rank is not applicable because the species is not a suitable target for conservation activities, SE = exotic, SU = unranked, B = breeding, N = non-breeding, and ? = some uncertainty with the classification due to insufficient information;

[4] Coefficient of Conservatism (CC) (Floristic Quality Assessment System for Southern Ontario 1995). Each native taxon is assigned a rank of 0 to 10 ("coefficient of conservatism") based on its degree of fidelity to a range of synecological parameters. Species found in a wide variety of plant communities, including disturbed sites, are assigned ranks of 0 to 3. Species that are typically associated with a specific plant community, but tolerate moderate disturbance, are assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those species associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those species with high degrees of fidelity to a narrow range of synecological parameters are assigned a value of 9 to 10;

[5] Coefficient of Wetness (CW) (Floristic Quality Assessment System for Southern Ontario 1995). The wetness index gives an indication of where plant species are typically found. A wetness value (coefficient of wetness) between -5 and 5. A value of -5 was assigned to Obligate Wetland (OBL) species and a value of 5 to Obligate Upland species (UPL), with intermediate values assigned to the remaining categories. The wetland categories and their corresponding values are as follows:

OBL (-5) Obligate Wetland - Occurs almost always in wetlands under natural conditions (estimated > 99% probability).
FACW+ (-4) Facultative Wetland - Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability).
FACW (-3)
FACW- (-2)
FAC + (-1) Facultative - Equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability).
FAC 0
FAC- (1)
FACU+ (2) Facultative Upland - Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33 % probability).
FACU (3)
FACU- (4)
UPL (5) Obligate Upland - Occurs almost never in wetlands under natural conditions (estimated <1 % probability).

[6] Refer to report text

Appendix G

Assessment of Significant Wildlife Habitat

Study Area Assessment of the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNR, 2015)

Table G-1: Seasonal Concentration Areas of Animals

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Waterfowl Stopover and Staging Areas (Terrestrial) **Rationale:** Habitat important to migrating waterfowl.	American Black Duck Wood Duck Green-winged Teal Blue-winged Teal Mallard Northern Pintail Northern Shoveler American Wigeon Gadwall	CUM1 CUT1 Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.	Fields with sheet water during Spring (mid-March to May). • Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl. • Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH unless they have spring sheet water available.	Studies carried out and verified presence of an annual concentration of any listed species, evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects": • Any mixed species aggregations of 100 or more individuals required. • The flooded field ecosite habitat plus a 100-300 m radius, dependant on local site conditions and adjacent land use is the significant wildlife habitat. • Annual use of habitat is documented from information sources or field studies (annual use can be based on studies or determined by past surveys with species numbers and dates). • SWH MIST Index #7 provides development effects and mitigation measures.	Absent
Waterfowl Stopover and Staging Areas (Aquatic) **Rationale:** Important for local and migrant waterfowl populations during the spring or fall migration or both periods combined. Sites identified are usually only one of a few in the eco-district.	Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup Long-tailed Duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	• Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration. Sewage treatment ponds and storm water ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. • These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water).	Studies carried out and verified presence of: • Aggregations of 100 or more of listed species for 7 days, results in > 700 waterfowl use days. • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH. • The combined area of the ELC ecosites and a 100m radius area is the SWH. • Wetland area and shorelines associated with sites identified within the SWHTG Appendix K are significant wildlife habitat. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • Annual Use of Habitat is Documented from Information Sources or Field Studies (Annual can be based on completed studies or determined from past surveys with species numbers and dates recorded). • SWH MIST Index #7 provides development effects and mitigation measures.	Absent

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Shorebird Migratory Stopover Area **Rationale:** High quality shorebird stopover habitat is extremely rare and typically has a long history of use.	Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden- Plover Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	• Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats. • Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. • Sewage treatment ponds and storm water ponds do not qualify as a SWH.	Studies confirming: • Presence of 3 or more of listed species and > 1000 Shorebird Use Days during spring or fall migration period (Shorebird Use Days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period). • Whimbrel stop briefly (<24hrs) during spring migration; any site with >100 Whimbrel used for 3 years or more is significant. • The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100m radius area. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • SWH MIST Index #8 provides development effects and mitigation measures.	Absent
Raptor Wintering Area **Rationale:** Sites used by multiple species, a high number of individuals, and used annually are most significant.	Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl **Special Concern** Short-eared Owl Bald Eagle	**Hawks/Owls** Combination of ELC Community Series; need to have present one Community Series from each land class: Forest FOC FOD FOM Upland CUM CUT CUS CUW **Bald Eagle:** Forest community Series: FOD, FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).	• The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors. • Raptor wintering (hawk/owl) sites need to be > 20 ha, with a combination of forest and upland. • Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands. • Field area of the habitat is to be wind swept with limited snow depth or accumulation. • Eagle sites have open water and large trees and snags available for roosting.	Studies confirm the use of these habitats by: • One or more Short-eared Owls or; one or more Bald Eagles or; At least 10 individuals and two of the listed hawk/owl species. • To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds. • The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • SWH MIST Index #10 and #11 provides development effects and mitigation measures.	**Candidate SWH is present in forest, woodland, thicket, meadow, and agricultural communities within the PSA.**

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Bat Hibernacula **Rationale:** Bat hibernacula are rare habitats in all Ontario landscapes.	Big Brown Bat Tri-coloured Bat	Bat Hibernacula may be found in these ecosites: CCR1 CCR2 CCA1 CCA2 (Note: buildings are not considered to be SWH)	• Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. • Active mine sites should not be considered as SWH. • The locations of bat hibernacula are relatively poorly known.	• All sites with confirmed hibernating bats are SWH. • The area includes 200m radius around the entrance of the hibernaculum for most development types and 1000m for wind farms. • Studies are to be conducted during the peak swarming period (Aug. – Sept.). Surveys should be conducted following methods outlined in the "Bats and Bat Habitats: Guidelines for Wind Power Projects". • SWH MIST Index #1 provides development effects and mitigation measures.	Absent

Bat Maternity Colonies
 	
Rationale:
 	
Known locations of forested bat maternity colonies are extremely rare in all Ontario landscapes.
	Big Brown Bat
	
	Silver-haired Bat
		Maternity colonies considered SWH are found in forested Ecosites.
		
		All ELC Ecosites in ELC Community Series:
		
		FOD
		
		FOM
		
		SWD
		
		SWM
			• Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).
			
			• Maternity roosts are not found in caves and mines in Ontario.
			
			• Maternity colonies located in Mature deciduous or mixed forest stands >10/ha large diameter (>25cm dbh) wildlife trees.
			
			• Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2.
			
			• Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred.
				• Maternity Colonies with confirmed use by;
				  ○ >10 Big Brown Bats
				  ○ >5 Adult Female Silver-haired Bats.
				
				• The area of the habitat includes the entire woodland or a forest stand ELC Ecosite or an Eco-element containing the maternity colonies.
				
				• Evaluation methods for maternity colonies should be conducted following methods outlined in the "Bats and Bat Habitats: Guidelines for Wind Power Projects".
				
				• SWH MIST Index #12 provides development effects and mitigation measures.
					Candidate SWH is present in the forest communities. Snag density calculations have not been conducted. Acoustic calling surveys have also not been conducted.

Turtle Wintering Areas **Rationale:** Generally sites are the only known sites in the area. Sites with the highest number of Individuals are most significant.	Midland Painted Turtle **Special Concern:** Northern Map Turtle Snapping Turtle	Snapping and Midland Painted Turtles; ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO. Northern Map Turtle; Open Water areas such as deeper rivers or streams and lakes with current can also be used as over-wintering habitat.	• For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates. • Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen. • Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.	• Presence of 5 over-wintering Midland Painted Turtles is significant. • One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant. • The mapped ELC ecosite area with the over wintering turtles is the SWH. If the hibernation site is within a stream or river, the deep- water pool where the turtles are over wintering is the SWH. • Over wintering areas may be identified by searching for congregations (Basking Areas) of turtles on warm, sunny days during the fall (Sept. – Oct.) or spring (Mar. – May). Congregation of turtles is more common where wintering areas are limited and; therefore, significant. • SWH MIST Index #28 provides development effects and mitigation measures for turtle wintering habitat.	**Candidate SWH is present in the watercourses that were assessed for fish habitat. This included Ramsay Creek as well as Mud Creek.**

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Reptile Hibernaculum **Rationale:** Generally sites are the only known sites in the area. Sites with the highest number of individuals are most significant.	**Snakes:** Eastern Gartersnake Northern Watersnake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake **Special Concern:** Milksnake Eastern Ribbonsnake **Lizard:** **Special Concern (Southern Shield population):** Five-lined Skink	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice, Cave, and Alvar sites may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator. For Five-lined Skink, ELC Community Series of FOD and FOM, and Ecosites: FOC1 FOC3	• For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH. • Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line. • Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. • Five-lined skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures.	Studies confirming: • Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. near potential hibernacula (e.g., foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct). • Note: If there are Special Concern Species present, then site is SWH. • Note: Sites for hibernation possess specific habitat parameters (e.g., temperature, humidity, etc.) and consequently are used annually, often by many of the same individuals of a local population (i.e., strong hibernation site fidelity). Other critical life processes (e.g., mating) often take place in close proximity to hibernacula. The feature in which the hibernacula is located plus 30 m radius area is the SWH. • SWH MIST Index #13 provides development effects and mitigation measures for snake hibernacula. • Presence of any active hibernaculum for skink is significant. • SWHMiST Index #37 provides development effects and mitigation measures for fivelined skink wintering habitat.	**Candidate SWH is present is most of the PSA since reptile hibernacula may be found in any ecosite other than very wet ones. OAO, and cultural communities are excluded from candidate SWH.**
Colonial Nesting Bird Breeding Habitat (Bank and Cliff) **Rationale:** Historical use and number of nests in a colony make this habitat significant. An identified colony can be very important to local populations. All swallow populations are declining in Ontario.	Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles, Cliff faces, bridge abutments, silos, barns. Habitat found in the following ecosites: CUM1 CUT1 CUS1 BLO1 BLS1 BLT1 CLO1 CLS1 CLT1	• Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area. • Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, and soil or aggregate stockpiles. • Does not include a licensed/permitted Mineral Aggregate Operation.	Studies confirming: • Presence of 1 or more nesting sites with 8 or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season. • A colony identified as SWH will include a 50m radius habitat area from the peripheral nests. • Field surveys to observe and count swallow nests are to be completed during the breeding season. Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #4 provides development effects and mitigation measures.	Absent

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Colonially -Nesting Bird Breeding Habitat (Tree/Shrubs) **Rationale:** Large colonies are important to local bird population, typically sites are only known colony in area and are used annually.	Great Blue Heron Black-crowned Night- Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	• Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used. • Most nests in trees are 11 to 15 m from ground, near the top of the tree.	Studies confirming: • Presence of two or more active nests of Great Blue Heron or other listed species. • The habitat extends from the edge of the colony and a minimum 300m radius or extent of the Forest Ecosite containing the colony or any island <15.0 ha with a colony is the SWH • Confirmation of active heronries are to be achieved through site visits conducted during the nesting season (April to August) or by evidence such as the presence of fresh guano, dead young and/or eggshells. • SWH MIST Index #5 provides development effects and mitigation measures.	Absent
Colonially -Nesting Bird Breeding Habitat (Ground) **Rationale:** Colonies are important to local bird population, typically sites are only known colony in area and are used annually.	Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1; 50,000 NTS map). Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6; MAS1 – 3; CUM CUT CUS	• Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas. • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands.	Studies confirming: • Presence of > 25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern. • Presence of 5 or more pairs for Brewer's Blackbird. • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant. • The edge of the colony and a minimum 150 m radius area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0 ha with a colony is the SWH. • Studies would be done during May/June when actively nesting. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • SWH MIST Index #6 provides development effects and mitigation measures.	Absent
Butterfly Migratory Stopover Areas **Rationale:** Butterfly stopover areas are extremely rare habitats and are biologically important for Butterfly species that migrate south for the winter.	Painted Lady Red Admiral **Special Concern:** Monarch Butterfly	Combination of ELC Community Series; need to have present one Community Series from each land class: Field CUM CUT CUS Forest FOC FOD FOM CUP	• A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Erie or Lake Ontario. • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south. • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat.	Studies confirm • The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. Numbers of butterflies can range from 100-500/day, significant variation can occur between years and multiple years of sampling should occur. • Observational studies are to be completed and need to be done frequently during the migration period to estimate MUD. • MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admiral's is to be considered significant. • SWH MIST Index #16 provides development effects and mitigation measures.	Absent

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
		Anecdotally, a candidate sight for butterfly stopover will have a history of butterflies being observed.	• Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest distance to cross the Great Lakes.		
Landbird Migratory Stopover Areas **Rationale:** Sites with a high diversity of species as well as high numbers are most significant.	All migratory songbirds. Canadian Wildlife Service Ontario website: http://www.ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1 All migrant raptors species: Ontario Ministry of Natural Resources: Fish and Wildlife Conservation Act, 1997. Schedule 7: Specially Protected Birds (Raptors)	All Ecosites associated with these ELC Community Series; FOC FOM FOD SWC SWM SWD	• Woodlots >10 ha in size and within 5 km of Lake Ontario. • If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Ontario are more significant. • Sites have a variety of habitats; forest, grassland and wetland complexes. • The largest sites are more significant. • Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5 km of Lake Ontario are Candidate SWH.	Studies confirm: • Use of the habitat by >200 birds/day and with >35 spp. with at least 10 bird spp. recorded on at least 5 different survey dates. This abundance and diversity of migrant bird species is considered above average and significant. • Studies should be completed during spring (Mar to May) and fall (Aug to Oct) migration, using standardized assessment techniques. Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #9 provides development effects and mitigation measures.	Absent
Deer Yarding Areas **Rationale:** Winter habitat for deer is considered to be the main limiting factor for northern deer populations. In winter, deer congregate in “yards” to survive severe winter conditions. Deer yards typically have a long history of annual use by deer, yards typically represent 10-15% of an areas summer range.	White-tailed Deer	All Forested Ecosites with these ELC Community Series; FOC FOM FOD SWC SWM SWD	• Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. This is a behavioural response and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter and generally, when snow depths reach 20 cm, most of the deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30 cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter. • The Core of a deer yard (Stratum I) is located within the Stratum II area and is critical for deer survival in areas where winters become severe. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%. • MNR determines deer yards following methods outlined in “Selected Wildlife and Habitat Features: Inventory Manual"	No Studies Required: • Snow depth and temperature are the greatest influence on deer use of winter yards. Snow depths > 40cm for more than 60 days in a typically winter are minimum criteria for a deer yard to be considered as SWH. • Deer Yards are mapped by MNR District offices. Locations of Core or Stratum 1 and Stratum 2 Deer yards considered significant by MNR will be available at local MNR offices or via Land Information Ontario (LIO). • Field investigations that record deer tracks in winter are done to confirm use (best done from an aircraft). Preferably, this is done over a series of winters to establish the boundary of the Stratum I and Stratum II yard in an "average" winter. MNR will complete these field investigations. • If a SWH is determined for Deer Wintering Area or if a proposed development is within Stratum II yarding area then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMiST Index #2 provides development effects and mitigation measures	Absent

Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
			• Woodlots with high densities of deer due to artificial feeding are not significant.		
Deer Winter Congregation Areas **Rationale:** Deer movement during winter in the southern areas of Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands to reduce or avoid the impacts of winter conditions	White-tailed Deer	All Forested Ecosites with these ELC Community Series; FOC FOM FOD SWC SWM SWD Conifer plantations much smaller than 50 ha may also be used.	• Woodlots will typically be >100 ha in size. Woodlots 100ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha. • Woodlots with high densities of deer due to artificial feeding are not significant	Studies confirm: • Deer management is an MNR responsibility, deer winter congregation areas considered significant will be mapped by MNR. • Use of the woodlot by whitetailed deer will be determined by MNR, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNR. • Studies should be completed during winter (Jan/Feb) when >20 cm of snow is on the ground using aerial survey techniques, ground or road surveys. or a pellet count deer density survey. • If a SWH is determined for Deer Wintering Area or if a proposed development is within Stratum II yarding area then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMiST Index #2 provides development effects and mitigation measures.	Absent

Table G-2: Rare Vegetation Communities

Rare Vegetation Community	ELC Ecosite Code	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		Habitat Description	Detailed Information	Defining Criteria	
Cliff and Talus Slopes **Rationale:** Cliffs and Talus Slopes are extremely rare habitats in Ontario.	Any ELC Ecosite within Community Series: TAO CLO TAS CLS TAT CLT	• A Cliff is vertical to near vertical bedrock >3 m in height. • A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris.	• Most cliff and talus slopes occur along the Niagara Escarpment.	• Confirm any ELC Vegetation Type for Cliffs or Talus Slopes • SWH MIST Index #21 provides development effects and mitigation measures.	Absent
Sand Barren **Rationale:** Sand barrens are rare in Ontario and support rare species. Most Sand Barrens have been lost due to cottage development and forestry.	ELC Ecosites: SBO1 SBS1 SBT1 Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket- like (SBS1), or more closed and treed (SBT1). Tree cover always < 60%.	• Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. Usually located within other types of natural habitat such as forest or savannah. Vegetation can vary from patchy and barren to tree covered, but less than 60%.	• A sand barren area >0.5 ha in size.	• Confirm any ELC Vegetation Type for Sand Barrens. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • SWHDSS Index #20 provides development effects and mitigation measures.	Absent
Alvar **Rationale:** Alvars are extremely rare habitats in Ecosregion 6E. Most alvars in Ontario are in Ecoregions 6E and 7E. Alvars in 6E are small and highly localized just north of the PalaeozoicPrecambrian contact.	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2 Five Alvar Indicator Species: 1) *Carex crawei* 2) *Panicum philadelphicum* 3) *Eleocharis compressa* 4) *Scutellaria parvula* 5) *Trichostema brachiatum*	An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil. The hydrology of alvars is complex, with alternating periods of inundation and drought. Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plants. Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species. Vegetation cover varies from patchy to barren with a less than 60% tree cover.	• An Alvar site > 0.5 ha in Size.	• Field studies that identify four of the five Alvar Indicator Species at a Candidate Alvar site is Significant. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • The alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses. • SWH MIST Index #17 provides development effects and mitigation measures.	Absent

Rare Vegetation Community	ELC Ecosite Code	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		Habitat Description	Detailed Information	Defining Criteria	
	These indicator species are very specific to Alvars within Ecoregion 6E.				
Old-Growth Forest **Rationale:** Due to historic logging practices, extensive old growth forest is rare in the Ecoregion. Interior habitat provided by old growth forests is required by many wildlife species	Forest Community Series: FOD FOC FOM SWD SWC SWM	• Old Growth forests are characterized by heavy mortality or turnover of over- storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.	• Woodland areas 30 ha or greater in size or with at least 10 ha interior habitat assuming 100 m buffer at edge of forest	• Field Studies will determine: • If dominant trees species are >140 years old, then the area containing these trees is Significant Wildlife Habitat. • The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present). • The area of forest ecosites combined or an eco-element within an ecosite that contain the old growth characteristics is the SWH. • Determine ELC vegetation types for the forest area containing the old growth characteristics. • SWH MIST Index #23 provides development effects and mitigation measures.	Absent
Savannah **Rationale:** Savannahs are extremely rare habitats in Ontario.	TPS1 TPS2 TPW1 TPW2 CUS2	• A savannah is a tallgrass prairie habitat that has tree cover between 25-60%.	• No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH.	• Field studies confirm one or more of the Savannah indicator species listed in Appendix N should be present. Note: Savannah plant spp. list from Ecoregion 6E should be used. • Area of the ELC Ecosite is the SWH. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • SWH MIST Index #18 provides development effects and mitigation measures.	Absent
Tallgrass Prairie **Rationale:** Tallgrass Prairies are extremely rare habitats in Ontario.	TPO1 TPO2	• A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has less than 25% tree cover.	• No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH.	• Field studies confirm one or more of the Prairie indicator species listed in Appendix N should be present. Note: Prairie plant spp. list from Ecoregion 6E should be used. • Area of the ELC Ecosite is the SWH. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • SWH MIST Index #19 provides development effects and mitigation measures.	Absent
Other Rare Vegetation Communities **Rationale:** Plant communities that often contain rare species which depend on the habitat for survival.	Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG. Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	• Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	• ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M. • The MNR/NHIC will have up to date listing for rare vegetation communities.	• Field studies should confirm if an ELC Vegetation Type is a rare vegetation community based on listing within Appendix M of SWHTG. • Area of the ELC Vegetation Type polygon is the SWH. • SWH MIST Index #37 provides development effects and mitigation measures.	Absent

Table G-3: Specialized Habitats of Wildlife considered Candidate Significant Wildlife Habitat

Specialized Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Waterfowl Nesting Area **Rationale:** Important to local waterfowl populations, sites with greatest number of species and highest number of individuals are significant.	American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal American Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SWT1 SWT2 SWD1 SWD2 SWD3 SWD4 **Note: includes adjacency to Provincially Significant Wetlands**	A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5 ha) and any small wetlands (0.5ha) within 120 m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur. • Upland areas should be at least 120 m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests. • Wood Ducks and Hooded Mergansers utilize large diameter trees (>40cm dbh) in woodlands for cavity nest sites.	Studies confirmed: • Presence of three or more nesting pairs for listed species excluding Mallards, or; • Presence of 10 or more nesting pairs for listed species including Mallards. • Any active nesting site of an American Black Duck is considered significant. • Nesting studies should be completed during the spring breeding season (April - June). Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • A field study confirming waterfowl nesting habitat will determine the boundary of the waterfowl nesting habitat for the SWH, this may be greater or less than 120 m from the wetland and will provide enough habitat for waterfowl to successfully nest. • SWH MIST Index #25 provides development effects and mitigation	Absent
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat **Rationale:** Nest sites are fairly uncommon in Ecoregion 6E and are used annually by these species. Many suitable nesting locations may be lost due to increasing shoreline development pressures and scarcity of habitat.	Osprey **Special Concern** Bald Eagle	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands.	• Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. • Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree’s canopy. • Nests located on man-made objects are not to be included as SWH (e.g., telephone poles and constructed nesting platforms).	Studies confirm the use of these nests by: • One or more active Osprey or Bald Eagle nests in an area. • Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH. • For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH ccvii, maintaining undisturbed shorelines with large trees within this area is important. • For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800 m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat. • To be significant a site must be used annually. When found inactive, the site must be known to be inactive for > 3 years or suspected of not being used for >5 years before being considered not significant. • Observational studies to determine nest site use, perching sites and foraging areas need to be done from early March to mid-August. Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #26 provides development effects and mitigation measures.	Absent

Specialized Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Woodland Raptor Nesting Habitat **Rationale:** Nests sites for these species are rarely identified; these area sensitive habitats are often used annually by these species	Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites. May also be found in SWC, SWM, SWD and CUP3	• All natural or conifer plantation woodland/forest stands >30 ha with >10 ha of interior habitat. Interior habitat determined with a 200 m buffer. • Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore islands. • In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.	Studies confirm: • Presence of 1 or more active nests from species list is considered significant. • Red-shouldered Hawk and Northern Goshawk – A 400m radius around the nest or 28 ha area of habitat is the SWH (the 28 ha habitat area would be applied where optimal habitat is irregularly shaped around the nest). • Barred Owl – A 200m radius around the nest is the SWH. • Broad-winged Hawk and Coopers Hawk,–A 100 m radius around the nest is the SWH. • Sharp-Shinned Hawk – A 50 m radius around the nest is the SWH. • Conduct field investigations from early March to end of May. The use of call broadcasts can help in locating territorial (courting/nesting) raptors and facilitate the discovery of nests by narrowing down the search area. • SWHDSS MIST Index #27 provides development effects and mitigation measures.	Absent
Turtle Nesting Areas **Rationale:** These habitats are rare and when identified will often be the only breeding site for local populations of turtles.	Midland Painted Turtle **Special Concern Species:** Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100 m) or within the following ELC Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	• Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals. • For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH. • Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.	Studies confirm: • Presence of five or more nesting Midland Painted Turtles. • One or more Northern Map Turtle or Snapping Turtle nesting is a SWH. • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100 m around the nesting area dependent on slope, riparian vegetation and adjacent land use is the SWH. • Travel routes from wetland to nesting area are to be considered within the SWH as part of the 30-100 m area of habitat. • Field investigations should be conducted in prime nesting season typically late spring to early summer. Observational studies observing the turtles nesting is a recommended method. • SWH MIST Index #28 provides development effects and mitigation measures for turtle nesting habitat.	Absent
Seeps and Springs **Rationale:** Seeps/Springs are typical of headwater areas and are often at the source of coldwater streams.	Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps/Springs are areas where ground water comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	• Any Forested Area (with <25% meadow/field/ pasture) within the headwaters of a stream or river system. • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species.	Field Studies confirm: • Presence of a site with >2 seeps/springs confirmed by studies should be considered SWH. • The area of an ELC forest ecosite or an eco-element within ecosite containing the seeps/springs is the SWH. The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat. • SWH MIST Index #30 provides development effects and mitigation measures.	Absent

Specialized Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
Amphibian Breeding Habitat (Woodland) **Rationale:** These habitats are extremely important to amphibian biodiversity within a landscape and often represent the only breeding habitat for local amphibian populations.	Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Chorus Frog Wood Frog	All Ecosites associated with these ELC Community Series: FOC SWC FOM SWM FOD SWD Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	• Presence of a wetland, pond or woodland pool (including vernal pools) >500 m2 (about 25 m diameter) within or adjacent (within 120 m) to a woodland (no minimum size). Some small wetlands may not be mapped and may be important breeding pools for amphibians. • Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.	Studies confirm: • Presence of breeding population of one or more of the listed newt/salamander species or two or more of the listed frog species with at least 20 individuals (adults or eggs masses) or two or more of the listed frog species with Call Level Codes of 3. • A combination of observational study and call count surveys will be required during the spring March-June) when amphibians are concentrated around suitable breeding habitat within or near the woodland/wetlands. • The habitat is the wetland area plus a 230m radius of woodland area. If a wetland area is adjacent to a woodland, a travel corridor connecting the wetland to the woodland is to be included in the habitat. • SWH MIST Index #14 provides development effects and mitigation measures.	Absent
Amphibian Breeding Habitat (Wetlands) **Rationale:** Wetlands supporting breeding for these amphibian species are extremely important and fairly rare within Central Ontario landscapes.	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	ELC Community Classes; SW BO MA OA FE SA Typically these wetland ecosites will be isolated (>120 m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g., Bull Frog) may be adjacent to woodlands.	• Wetlands>500 m^2 (about 25 m diameter), supporting high species diversity are significant; some small or ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding habitats. • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators. • Bullfrogs require permanent water bodies with abundant emergent vegetation.	Studies confirm: • Presence of breeding population of one or more of the listed newt/salamander species or two or more of the listed frog/toad species with at least 20 individuals (adults or eggs • masses) or two or more of the listed frog/toad species with Call Level Codes of 3 or; Wetland with confirmed breeding Bullfrogs are significant. • The ELC ecosite wetland area and the shoreline are the SWH. • A combination of observational study and call count surveys cviii will be required during the spring (March-June) when amphibians are concentrated around suitable breeding habitat within or near the wetlands. • If a SWH is determined for Amphibian Breeding Habitat (Wetlands) then Movement Corridors are to be considered as outlined in this Schedule. • SWH MIST Index #15 provides development effects and mitigation measures.	Absent
Woodland Area-Sensitive Bird Breeding Habitat **Rationale:** Large, natural blocks of mature woodland habitat within the settled areas of Southern Ontario are important habitats for area sensitive interior forest song birds.	Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager	All Ecosites associated with these ELC Community Series; FOC FOM FOD SWC SWM SWD	• Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs old) forest stands or woodlots >30 ha. • Interior forest habitat is at least 200 m from forest edge habitat.	Studies confirm: • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. • Note: any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH. • Conduct field investigations in spring and early summer when birds are singing and defending their territories. • Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #34 provides development effects and mitigation measures.	Absent

Specialized Wildlife Habitat	Wildlife Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area Based on Species Observed and ELC
		ELC Ecosite Codes	Habitat Criteria	Defining Criteria	
	Winter Wren Pileated Woodpecker **Special Concern:** Cerulean Warbler Canada Warbler				

Table G-4: Habitats of Species of Conservation Concern considered Candidate SWH.

Wildlife	Species	Candidate SWH		Confirmed SWH	SWH Interpretation Within the Study Area Based on Species Observed and ELC
		ELC Ecosite	Habitat Criteria	Defining Criteria	
Marsh Breeding Bird Habitat **Rationale:** Wetlands for these bird species are typically productive and fairly rare in Southern Ontario landscapes.	American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Green Heron Trumpeter Swan **Special Concern:** Black Tern Yellow Rail	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	• Nesting occurs in wetlands. • All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present. • For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water.	Studies confirm: • Presence of five or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of four or more of the listed species. • Note: any wetland with breeding of one or more Black Terns, Trumpeter Swan, Green Heron or Yellow Rail is SWH Area of the ELC ecosite is the SWH. • Breeding surveys should be done in May/June when these species are actively nesting in wetland habitats. • Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #35 provides development effects and mitigation measures.	Absent
Open Country Bird Breeding Habitat **Rationale:** This wildlife habitat is declining throughout Ontario and North America. Species such as the Upland Sandpiper have declined significantly the past 40 years based on CWS (2004) trend records.	Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow **Special Concern** Short-eared Owl	CUM1 CUM2	• Large grassland areas (includes natural and cultural fields and meadows) >30 ha. • Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e., no row cropping or intensive hay or livestock pasturing in the last five years). • Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least five years or older. • The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species.	Studies confirm: • Presence of nesting or breeding of two or more of the listed species. • A field with one or more breeding Short-eared Owls is to be considered SWH. • The area of SWH is the contiguous ELC ecosite field areas. • Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories. • Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • SWH MIST Index #32 provides development effects and mitigation measures.	Absent
Shrub/Early Successional Bird Breeding Habitat; **Rationale:** This wildlife habitat is declining throughout Ontario and North America.	**Indicator Spp:** Brown Thrasher Clay-coloured Sparrow **Common Spp.** Field Sparrow Black-billed Cuckoo E. Towhee	CUT1 CUT2 CUS1 CUW1 CUW2	• Large field areas succeeding to shrub and thicket habitats >10 ha in size. • Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e., no row- cropping, haying or live- stock pasturing in the last five years). • Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species.	Studies confirm: • Presence of nesting or breeding of one or more indicator species and at least two of the common species. • A habitat with breeding Yellow- breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat. • The area of the SWH is the contiguous ELC ecosite field/thicket area.	Absent

Wildlife	Species	Candidate SWH		Confirmed SWH	SWH Interpretation Within the Study Area Based on Species Observed and ELC
		ELC Ecosite	Habitat Criteria	Defining Criteria	
The Brown Thrasher has declined significantly over the past 40 years based on CWS (2004) trend records.	Willow Flycatcher **Special Concern:** Yellow-breasted Chat Golden-winged Warbler		• Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands.	• Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • SWH MIST Index #33 provides development effects and mitigation measures.	
Terrestrial Crayfish **Rationale:** Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare	Chimney or Digger Crayfish; {*Fallicambarus fodiens*} Devil Crawfish or Meadow Crayfish; {*Cambarus Diogenes*}	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD SWT SWM CUM1 with inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish	• Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish. • Constructs burrows in marshes, mudflats, meadows, the ground can't be too moist. Can often be found far from water. • Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels. Usually the soil is not too moist so that the tunnel is well formed.	Studies confirm: • Presence of one or more individuals of species listed or their chimneys (burrows) in suitable meadow marsh, swamp or moist terrestrial sites. • Area of ELC ecosite or an eco-element area of meadow marsh or swamp within the larger ecosite area is the SWH. • Surveys should be done April to August in temporary or permanent water. Note the presence of burrows or chimneys are often the only indicator of presence, observance or collection of individuals is very difficult. • SWH MIST Index #36 provides development effects and mitigation measures.	Absent
Special Concern and Rare Wildlife Species **Rationale:** These species are quite rare or have Experienced significant population declines in Ontario.	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. Lists of these species are tracked by the Natural Heritage Information Centre (NHIC).	All plant and animal element occurrences (EO) within a 1 or 10km grid. Older element occurrences were recorded prior to GPS being available; therefore, location information may lack accuracy	• When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites.	Studies confirm: • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable. • The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH, this must be delineated through detailed field studies. The habitat needs be easily mapped and cover an important life stage component for a species e.g., specific nesting habitat or foraging habitat. • SWH MIST Index #37 provides development effects and mitigation measures.	**Candidate SWH for multiple species – please see Species of Conservation Concern (SCC) table in Appendix C – Table C-2.**

Table G-5: Animal Movement Corridors

Habitat	Species	Candidate SWH		Confirmed SWH	SWH Interpretation within the Study Area based on species observed and ELC
		ELC Eco-sites	Habitat Criteria	Defining Criteria	
Amphibian Movement Corridors **Rationale:** Movement corridors for amphibians moving from their terrestrial habitat to breeding habitat can be extremely important for local populations.	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	Corridors may be found in all ecosites associated with water. Corridors will be determined based on identifying the significant breeding habitat for these species.	• Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH (Amphibian Breeding Habitat –Wetland) of this Schedule. • Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH.	• Field studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites. • Corridors should consist of native vegetation, with several layers of vegetation. Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant. • Corridors should have at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m. • Shorter corridors are more significant than longer corridors; however amphibians must be able to get to and from their summer and breeding habitat. • SWHDSS Index #40 provides development effects and mitigation measures.	Absent
Deer Movement Corridors **Rationale:** Corridors important for all species to be able to access seasonally important life-cycle habitats or to access new habitat for dispersing individuals by minimizing their vulnerability while travelling.	White-tailed Deer	Corridors may be found in all forested ecosites. A Project Proposal in Stratum II Deer Wintering Area has potential to contain corridors.	• Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH from Table 1.1 of this schedule. • A deer wintering habitat identified by the MNR as SWH in Table 1.1 of this Schedule will have corridors that the deer use during fall migration and spring dispersion. • Corridors typically follow riparian areas, woodlots, areas of physical geography (ravines, or ridges).	• Studies must be conducted at the time of year when deer are migrating or moving to and from winter concentration areas. • Corridors that lead to a deer wintering habitat should be unbroken by roads and residential areas. • Corridors should be at least 200m wide with gaps. Shorter corridors are more significant than longer corridors. • SWHMiST Index #39 provides development effects and mitigation measures	Absent

Table G-6. Significant Wildlife Habitat Exceptions for Ecodistricts within EcoRegion 6E

EcoDistrict	Wildlife Habitat and Species	Candidate SWH			Confirmed SWH	SWH Interpretation Within the Study Area Based on species observed and ELC
		Eco-sites	Habitat Description	Habitat Criteria and Information	Defining Criteria	
6E-14 **Rationale:** The Bruce Peninsula has an isolated and distinct population of black bears. Maintenance of large woodland tracts with mastproducing tree species is important for bears.	Mast Producing Areas Black Bear	All Forested habitat represented by ELC Community Series: FOM FOD	• Black bears require forested habitat that provides cover, winter hibernation sites, and mast producing tree species. • Forested habitats need to be large enough to provide cover and protection for black bears	• Woodland ecosites >30 ha with mast-producing tree species, either soft (cherry) or hard (oak and beech),	• All woodlands > 30 ha with a 50% composition of these ELC Vegetation Types are considered significant: ○ FOM1-1 ○ FOM2-1 ○ FOM3-1 ○ FOD1-1 ○ FOD1-2 ○ FOD2-1 ○ FOD2-2 ○ FOD2-3 ○ FOD2-4 ○ FOD4-1 ○ FOD5-2 ○ FOD5-3 ○ FOD5-7 ○ FOD6-5 • SWHMiST Index #3 provides development effects and mitigation measures.	Absent
6E- 17 **Rationale:** Sharp-tailed grouse only occur on Manitoulin Island in Ecoregion 6E, Leks are an important habitat to maintain their population	Lek Sharp-tailed Grouse	CUM CUS CUT	• The lek or dancing ground consists of bare, grassy or sparse shrubland. There is often a hill or rise in topograph. • Leks are typically a grassy field/meadow >15 ha with adjacent shrublands and >30 ha with adjacent deciduous woodland. Conifer trees within 500 m.	• Grasslands (field/meadow) are to be >15 ha when adjacent to shrubland and >30 ha when adjacent to deciduous woodland. • Grasslands are to be undisturbed with low intensities of agriculture (light grazing or late haying). • Leks will be used annually if not destroyed by cultivation or invasion by woody plants or tree planting.	• Studies confirming lek habitat are to be completed from late March to June. • Any site confirmed with sharp-tailed grouse courtship activities is considered significant. • The field/meadow ELC ecosites plus a 200 m radius area with shrub or deciduous woodland is the lek habitat. • SWHMiST Index #32 provides development effects and mitigation measures	Absent

Appendix C

EMF Information Sheet

Health & Safety

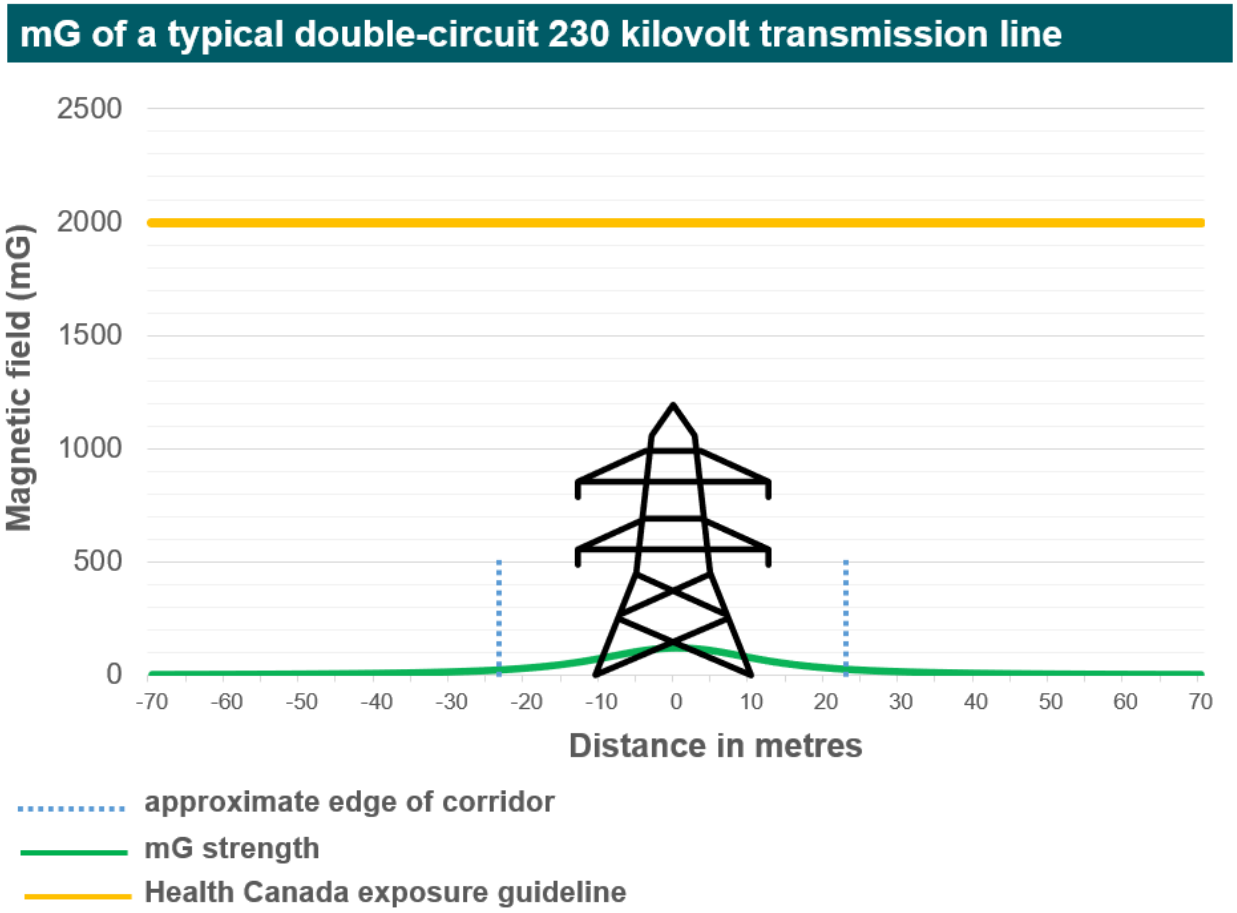
Health & safety background

- Everything is rooted in safety at Hydro One.
- Hydro One has a dedicated team that regularly monitors global studies around electric and magnetic fields (EMF) and ensures that our infrastructure is built and maintained following best practices and industry standards.
- We look to **Health Canada**, the **World Health Organization** and the **International Commission on Non-Ionizing Radiation Protection** (ICNIRP), for guidance on EMF and our approach.
- Based on global studies which have and continue to be regularly monitored, these organizations indicate that members of the public do not need to take precautions to protect from fields produced by extremely low frequencies such as transmission lines.

Key facts

- Electricity produces fields which are referred to as EMFs. **EMFs are invisible forces found everywhere electricity is used** including household appliances, power cords, and wires.
- They are strongest when close to their source. As you move away from the source, the **strength of the fields fades rapidly**.
- In North America, all electricity including transmission lines, operate at 60 hertz, which is considered to be extremely low frequency.
- World Health Organization (WHO) states that “despite extensive research, to date there is **no evidence** to conclude that exposure to low level electromagnetic fields is harmful to human health.”
- Health Canada states that members of the public do not need to take precautions to protect from fields produced by electricity (extremely low frequency) because exposures are far below the limits recommended by the ICNIRP guidelines (The International Commission on Non-Ionizing Radiation Protection)
- ICNIRP’s guidelines indicate that general exposure at low frequency, such as transmission lines, should **not exceed a level of 2000 milligauss** (mG).
- To help further put this into context, household appliances such as a **vacuum operates at 300 mG**, a microwave at 200 mG and a washing machine at 20 mG.

Below is an example chart that shows a double-circuit 230kV transmission line. The green line represents magnetic field modelling as it extends from under the wires and to the edge of the right-of-way. This modelling is compared against Health Canada's recommended limit of 2000 mG (yellow horizontal line). The tower represents the middle of the transmission line.



Common household sources of magnetic fields

Appliance	Median mG
Electric Ovens	9 mG at 6 inches
Coffee Makers	7 mG at 6 inches
Refrigerators	2 mG at 6 inches
Vacuum Cleaner	300 mG at 6 inches
Microwave	200 mG at 6 inches
Portable Heater	100 mG at 6 inches
Washing Machines	20 mG at 6 inches

EMF and the Natural Environment

The World Health Organization has studied EMF effects on species and the natural environment.

Their findings include:

- **little or no evidence** of significant environmental impact to aquatic ecosystems
- **no effects** to plants at the levels normally found in the environment, nor even at field levels directly under power lines up to 765 kV
- **no adverse effects** found on cattle grazing below power lines

Additional resources

- https://www.hydroone.com/power-outages-and-safety/corporate-health-and-safety/electric-and-magnetic-fields
- https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/power-lines-electrical-appliances.html
- https://www.who.int/news-room/questions-and-answers/item/radiation-electromagnetic-fields
- https://www.icnirp.org/cms/upload/publications/ICNIRPLFgdl.pdf
- https://www.jeic-emf.jp/documents/pdf/fact_sheet_Effects%20of%20EMF%20on%20the%20environment.pdf

We are committed to understanding and addressing any health concerns individuals may have. In the meantime, if you have any questions, please contact Hydro One's Community Relation's team:

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