WAWA TRANSFORMER STATION EXPANSION

CLASS ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL STUDY REPORT

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ENVIRONMENTAL STUDY REPORT

September 2019

Report Number: 590-CLEA-19--2

Hydro One Networks Inc.
Environmental Services
483 Bay Street, North Tower, 12th Floor
Toronto, ON, M5G 2P5

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EXECUTIVE SUMMARY

Hydro One Networks Inc. (Hydro One) has prepared this draft Environmental Study Report (ESR) for the proposed expansion of the existing Wawa Transformer Station (TS), located southeast of the Municipality of Wawa, and north of Anjigami Lake. The expansion of this TS is referred to as the Wawa Transformer Station Expansion project (herein referred to as "the proposed Project"). The proposed Project is required to accommodate the new East-West Tie (EWT) transmission line, which will be installed by NextBridge Infrastructure LP (NextBridge). The proposed Project will involve the installation of a new relay building and new electrical equipment, as well as the reconfiguration of existing electrical components. To accommodate this work, the existing Wawa TS will be expanded by approximately 0.6 hectares (ha) to the north and west on property acquired by Hydro One in the fall of 2018.

The proposed Project is subject to the Class Environmental Assessment (EA) for Minor Transmission Facilities, (Hydro One, 2016), an approved planning process under the *Environmental Assessment Act* (EA Act). This draft ESR has been prepared in accordance with the requirements of the EA Act and describes the Class EA process that has been undertaken for the proposed Project.

At the onset of the proposed Project, a study area was defined based on the technical specifications and system requirements for the new EWT transmission line along with considerations of the potential for environmental effects. The Class EA process for the proposed Project included an assessment of the existing environmental features within the study area. Resources were identified from literature reviews, reports and technical memos commissioned by Hydro One, databases, mapping, consultation and field surveys.

Since early 2017, Hydro One has conducted consultation with municipal, provincial and federal government officials and agencies, First Nations and Métis (FN&M) communities, potentially affected and interested persons, and interest groups. This involved project notification as well as issues identification and resolution. The consultation process included the development of a project website, a Community Information Centre (CIC) in the Municipality of Wawa, a Community Information Session (CIS) in the Michipicoten First Nation (MFN) community, in-person meetings with FN&M communities, correspondence

with key stakeholders, and dedicated Community Relations and Indigenous Relations representatives.

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

The draft ESR was available for public review and comment for 30 calendar days, from July 29, 2019 until 4:30 p.m. on August 30, 2019.

Comments received from Michipicoten First Nation (MFN), Ministry of Environment, Conservation and Parks (MECP) as well as Ministry of Touris, Culture and Sport (MTCS) were addressed and are documented in this ESR, as required by the Class EA process. No Part II Order requests were received to elevate this project from a Class EA to an Individual EA.

The proposed Project will be implemented in full compliance with the requirements of the Class EA process as outlined in this ESR, incorporating input obtained throughout the planning process including the consultation plan. Hydro One will obtain the necessary environmental approvals and permits required for the proposed Project.

Through filing this ESR with the MECP, Hydro One has satisfied the requirements of the provincial EA Act. The proposed Project outlined in this ESR is considered acceptable.

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LIST OF ACRONYMS & ABBREVIATIONS

ABBO	Atlas of Breeding Birds of Ontario
AMO	Atlas of the Mammals of Ontario
ANSI	Area of Natural and Scientific Interest
BCI	Bat Conservation International Inc.
BFN	Batchewana First Nation
CAO	Chief Administrative Officer
CIC	Community Information Centre
CIS	Community Information Session
CN Rail	Canadian National Railway
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
CP Rail	Canadian Pacific Railway
EA	Environmental Assessment
EA Act	*Environmental Assessment Act*
EAPB	Environmental Assessment and Permissions Branch
EASR	Environmental Activity and Sector Registry
ECCC	Environment and Climate Change Canada
ELC	Ecological Land Classification
ELM	Environmental Management Liability Inc.
ENDM	Ministry of Energy and Northern Development Mines
ESA	*Endangered Species Act*
ESC	Erosion and Sediment Control
ESR	Environmental Study Report
EWT	East-West Tie
FIPPA	*Freedom of Information and Privacy Protection Act*
FMP	Forest Management Plan
FN&M	First Nations and Métis
GPS	Global Positioning System

GRFN	Garden River First Nation
Hydro One	Hydro One Networks Inc.
IESO	Independent Electricity System Operator
INAC	Indigenous and Northern Affairs Canada
LIO	Land Information Ontario
MBCA	*Migratory Birds Convention Act*
MCFN	Missanabie Cree First Nation
MFN	Michipicoten First Nation
MECP	Ministry of the Environment, Conservation and Parks
MMAH	Ministry of Municipal Affairs and Housing
MENDM	Ministry of Energy and Northern Development Mines
MNDM	Ministry of Northern Development Mines
MNO	Métis Nation of Ontario
MNRF	Ministry of Natural Resources and Forestry
MOECC	Ministry of the Environment and Climate Change
MTCS	Ministry of Tourism, Culture and Sport
MTO	Ministry of Transportation
NAPS	National Air Pollution Surveillance
NextBridge	NextBridge Infrastructure LP
NHIC	Natural Heritage Information Centre
OHWM	Ordinary High Water Mark
OP	Official Plan
O. Reg.	Ontario Regulation
ORAA	Ontario Reptiles and Amphibian Atlas
OWES	Ontario Wetland Evaluation System
OWRA	*Ontario Water Resources Act*
PPS	Provincial Policy Statement, 2014
Proposed Project	Wawa Transformer Station Expansion
PTTW	Permit to Take Water
PSW	Provincially Significant Wetlands

SAR	Species at Risk
SARA	*Species at Risk Act*
SWH	Significant Wildlife Habitat
TS	Transformer Station
WMO	World Meteorological Organization

1 Introduction

Hydro One Networks Inc. (Hydro One) is planning to expand the existing Wawa TS to accommodate the new East-West Tie (EWT) transmission line, which will be installed by NextBridge Infrastructure LP (NextBridge). The project involves the installation of a new relay building, new electrical equipment such as circuit breakers and disconnect switches, and the reconfiguration of existing electrical components. To accommodate the required work, the existing station will be expanded by approximately 0.6 ha on the north and west sides on Hydro One property. The undertaking is referred to as the proposed Wawa TS Expansion project (herein referred to as "the proposed Project"). The proposed Project is located southeast of the Municipality of Wawa, and north of Anjigami Lake, shown in **Figure 1-1**.

The proposed Project is subject to the Class EA for Minor Transmission Facilities (Hydro One, 2016), an approved planning process under the Ontario EA Act. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects are planned and carried out in an environmentally acceptable manner.

This proposed Project was initially assessed following the Class EA Screening Process, which was completed in December 2017. An environmental field survey was conducted in 2017 as part of the Screening Process. Based on the findings of the Screening Process, Hydro One does not expect any significant environmental effects, and any identified potential effects are likely to be limited to the expansion area. See **Appendix A** for the 2017 Class EA Screening Report and 2017 Field Survey Report.

In July 2018, the MECP received a letter from Michipicoten First Nation (MFN) requesting that the project be elevated to a higher level of assessment (i.e., Full Class EA). After several discussions between Hydro One, MFN and MECP, the MECP issued a letter in November 2018 recommending Hydro One to complete a Full Class EA for the project as a result of a differing opinion regarding one of the screening criteria. As such, the Part II Order request was not considered, but rather, the MECP considered there to be a non-compliance issue with respect to the screening criteria, requiring the Full Class EA Process to be followed. The MECP advised that Hydro One is "not to restart the process but to complete the appropriate

work for this project". See **Section 3.4.2** and **Appendix B** for more information regarding the Part II Order request and related documentation.

Between February and March 2019, Hydro One issued a Project Change Notice to FN&M communities (identified by the Crown); federal, provincial and municipal government officials and agencies; local residents and property owners; potentially affected and interested persons; and interest groups to advise that a Full Class EA was to be undertaken for this project. See **Section 3** for more information on consultation undertaken for this project.

As part of the Full Class EA Process, the environmental field surveys and archaeological assessments that were previously conducted, as well as any potential environmental effects and proposed mitigation identified during the 2017 Class EA Screening Process are referenced and supplemented where required, and documented in this draft ESR, which has been prepared in accordance with the requirements of the EA Act.

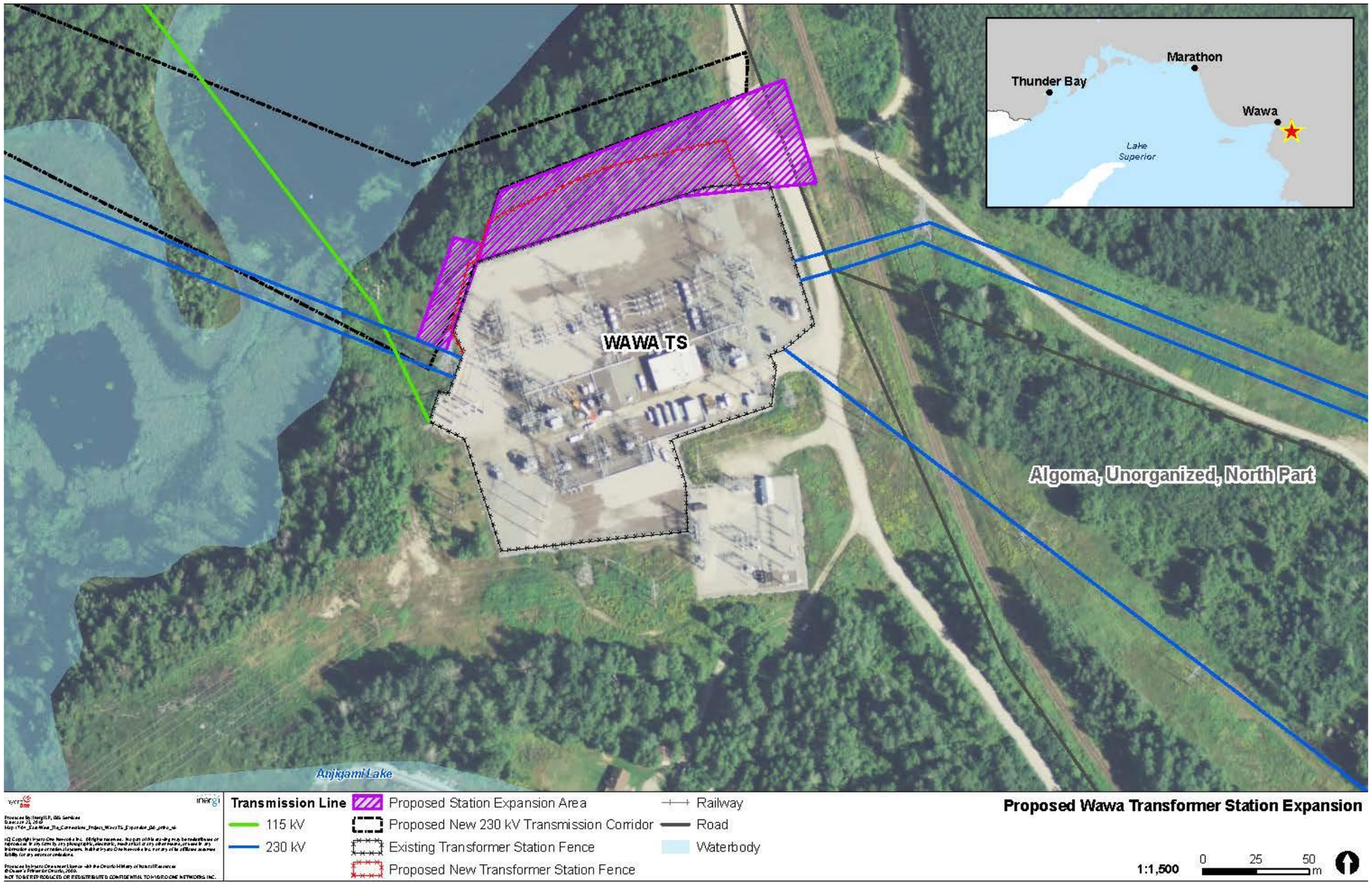

Figure 1-1: Wawa Transformer Station Expansion

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1.1 Need for the Undertaking

Hydro One is mandated to connect and accommodate the new EWT transmission line to be installed by NextBridge, which was subject to its own separate EA (approved in March 2019). Specifically, the existing Wawa TS needs to be expanded by approximately 0.6 ha in order to accommodate the necessary installation of new equipment to connect the new EWT transmission line to the electricity grid at Wawa TS.

The Independent Electricity System Operator (IESO) identified the need for the new EWT Expansion Project that the Minister of Energy, Northern Development and Mines (ENDM) included it as a priority project in the 2010 Long-Term Energy Plan. The need is described as follow (IESO, 2017):

> "The purpose of this project is to provide a long-term, reliable electricity supply to Northwest Ontario to enable forecast demand growth and changes to the supply mix in the region."
>
> "The East-West Tie Expansion project consists of a new 230 kV transmission line roughly paralleling the existing East-West Tie Line between Wawa and Thunder Bay. The new line will increase electricity transfer capability into Northwest Ontario from 175 MW to 650 MW, and improve the flexibility and efficiency of the Northwest electricity system."

The proposed expansion at Wawa TS is a component of the overall EWT Expansion Project, required to provide the 650 megawatts (MW) transfer capability, as per the IESO's System Impact Assessment (CAA ID 2016-568, "Ontario 230 kV East-West Tie Connections").

1.2 Description of the Undertaking

The proposed Project will involve the reconfiguration of 230 kilovolt (kV) buses and diameters, installation of new 230 kV circuit breakers and disconnect switches and connection of the new EWT 230 kV circuits. The existing 230 kV circuits inside Wawa TS will be re-terminated and the last structure of the new circuits (outside of Wawa TS) will be connected

to structures inside the station. A new relay building will also be installed. The conceptual layout map for the TS and expansion area is shown in **Figure 1-2**.

Detailed design of the proposed Project will be completed following filing of the final ESR, as discussed in **Section 6.1**. Upon the successful completion of the Class EA process, construction could begin as early as October 1, 2019 and be completed by October 2021.

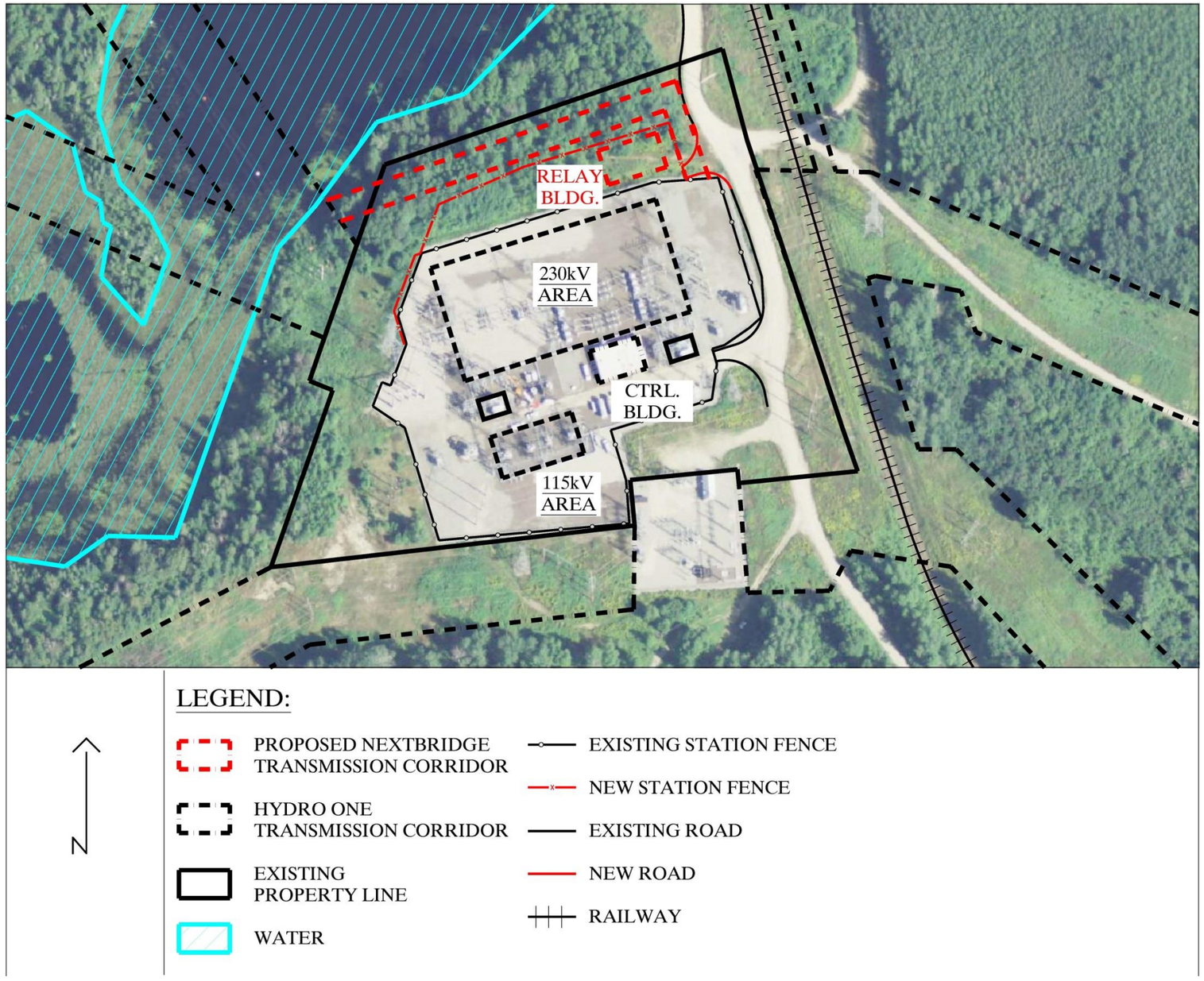

Figure 1-2: Conceptual Layout Map

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1.3 Alternatives to the Undertaking

The Class EA process require identification and evaluation of "alternatives to" the undertaking. "Alternative methods" of carrying out the undertaking are distinct from alternatives to the undertaking. "Alternatives to" the undertaking are functionally different approaches to addressing the need for the undertaking. These alternatives must be reasonable from a technical, economic and environmental perspective.

The proposed Project is a component of the overall EWT Expansion Project, which was identified by the IESO (**Section 1.1**), therefore the "alternatives to" the undertaking (beyond 'transmission') were not assessed by Hydro One and the Class EA process will not revisit alternatives considered and rejected by the planning process that was undertaken by the IESO.

The following transmission alternatives to the undertaking were considered:

- Alternative 1: Do Nothing
- Alternative 2: Expand the existing TS

Alternative 1: Do Nothing

The "Do Nothing" alternative will not meet the need for the undertaking and is therefore not a feasible alternative to be carried forward for further consideration.

Alternative 2: Expand the Existing TS

The other alternative involves the expansion of the existing Wawa TS to connect the new EWT line.

The expansion of the existing Wawa TS to connect the new EWT transmission line is technically feasible and is consistent with the Ontario Provincial Policy Statement (PPS) (Ministry of Municipal Affairs and Housing [MMAH], 2014), which states that:

"Before consideration is given to developing new infrastructure and public service facilities:

- The use of existing infrastructure and public service facilities should be optimized; and,

- Opportunities for adaptive re-use should be considered, wherever feasible."

The "alternative methods" and rationale for selecting the northern area for the station expansion is further discussed in **Section 5**.

1.4 Approval Process and Regulatory Requirements

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

1.4.1 *Class Environmental Assessment Process*

This draft ESR has been prepared in accordance with the Class EA (Hydro One, 2016), an approved planning process under the EA Act. Components of the process include:

- Establish need (Section 1.1);
- Identify and evaluate "alternatives to" the undertaking (Section 1.3);
- Define study area (Section 2);
- Issue initial notification (Section 3.1);
- Conduct environmental inventory (Section 4);
- Identify and evaluate "alternative methods" (Section 5);
- Select preferred alternative method (Section 5) and prepare draft ESR;
- Issue final notification and the draft ESR for 30-day public review and comment (Section 3.8);
- File final ESR and Class EA Statement of Completion with the MECP and proceed with the undertaking (Section 3.8); and,
- Conduct consultation throughout the process (Section 3).

The Class EA process is illustrated on **Figure 1-3**.

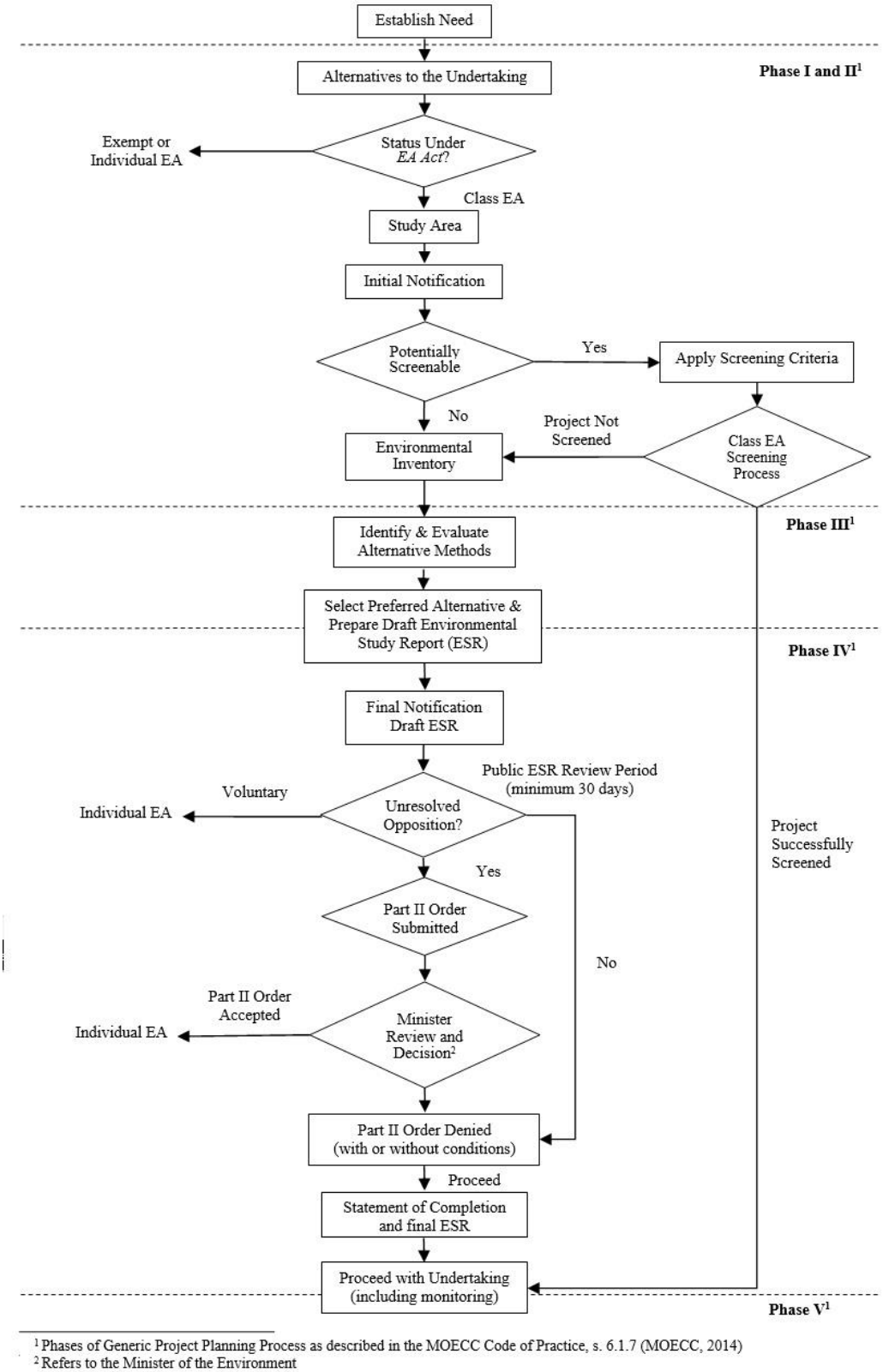

Figure 1-3: Class Environmental Assessment Process Diagram

The Class EA for Minor Transmission Facilities applies to Category B transmission projects that are not associated with Category B generation projects, as per Guide to EA Requirements for Electricity Projects under Ontario Regulation (O. Reg) 116 (MECP, 2011).

Transmission facilities covered under the Class EA include:

a. The planning, design and construction of minor transmission lines and/or transformer stations (including telecommunication stations), and the subsequent operation, maintenance and retirement of these facilities.

   Minor transmission lines include all transmission line projects involving greater than 2 km of line, which:

   i. Are capable of operating at a nominal voltage equal to 115 kV.

   ii. Are capable of operating at a nominal voltage level higher than 115 kV and less than 500 kV, and which involve less than 50 km of line.

b. The planning, design and construction required to modify or upgrade a transmission line, and the subsequent operation, maintenance and retirement of the revised line where:

   i. The work requires replacement of poles or towers and/or changes in the RoW for existing transmission lines capable of operating at a nominal voltage of 115 kV or higher and no more than 500 kV.

   ii. The modified or upgraded existing lines will operate at a nominal voltage of equal to or greater than 115 kV, and equal or less than 500 kV (nominal voltage).

c. The planning, design and construction required to modify or expand a transformer station, and the subsequent operation, maintenance and retirement of the modified station where:

   i. Acquisition of additional property is required; and,

ii. The modified stations are capable of operating at a nominal voltage level of equal to or greater than 115 kV and equal to or less than 500 kV (where a station has more than one voltage level, the highest level is used in defining the station's nominal operating voltage.).

It is Section "c." of the Class EA above that is triggered by this proposed Project.

Upon completion of the draft ESR, Hydro One will issue a final notification to municipal, provincial and federal government officials and agencies, FN&M communities, potentially affected and interested persons, and interest groups. This draft ESR will be made available for public review and comment for a period of 30 calendar days, from July 29, 2019 until August 29, 2019 at 4:30 p.m. Hydro One will make best efforts to respond and resolve issues raised by concerned parties during the review period. Any issues and their respective resolutions will be documented and summarized in the final ESR.

If a concern cannot be resolved by the proponent, the concerned party (requester) may request the proponent to elevate the project to a higher level of assessment (i.e., Individual EA). If the proponent decides not to elevate the status of the project, and the requester wishes to pursue the matter, he/she may request that the Minister or delegate grant a Part II Order and elevate the status of the project. See Section 3.8 for more details.

Once the review period of the draft ESR is complete, comments received during the review period will be incorporated into the final ESR. A copy of the final ESR will be placed on the Hydro One project website, and provided to the Environmental Assessment and Permissions Branch (EAPB) and the appropriate Regional EA Coordinator at the MECP for filing. Once the final ESR and the Class EA Statement of Completion have been filed with the MECP, the proposed Project will be considered approved and may proceed as outlined in the final ESR.

1.4.2 *Other Permits, Licenses and Approvals*

In addition to meeting EA Act requirements, there are a number of necessary permits, licenses and approvals that may be required under municipal, federal and provincial legislations. These are presented in Table 1-1. Hydro One will contact the appropriate regulatory agencies to ensure that the proposed Project will meets all regulatory requirements prior to construction.

The proposed Project does not trigger a federal EA under the *Canadian Environmental Assessment Act, 2012* or the newly enacted federal *Impact Assessment Act*.

The facility will discharge clean water, meeting Ontario Provincial Water Quality Objectives (PWQO) to the ground surface adjacent to the station. Neither noise emissions nor drainage discharge will be in quantities or qualities expected to cause an adverse effect. The expanded Wawa TS will operate in a very similar manner as the existing TS.

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*." Hydro One has been working with the Municipality of Wawa during the Class EA process and will continue to consult with the municipality regarding the final layout and design of the station and property, and the effects of the construction on local traffic and the community, as needed.

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

PERMIT, LICENSE, OR APPROVAL	PRIMARY AGENCY	DESCRIPTION
Section 92 Leave to Construct	Ontario Energy Board (OEB)	Required for the proposed new EWT transmission line (NextBridge) and all associated station work (Hydro One) which includes the proposed expansion of Wawa TS, Marathon TS and Lakehead TS. Section 92 Approval was obtained in December 2018.
Environmental Activity and Sector Registry (EASR)	Ministry of Environment, Conservation and Parks (MECP)	Required for construction dewatering operations between 50,000 - 400,000 Litres per day (L/day).

2 Study Area

A project study area is delineated to encompass the area of potential project effects. At the beginning of the Class EA process, the Hydro One project team collaborated to identify the technical specifications and system requirements for the proposed TS expansion, and the criteria and guidelines that were established to assist in identifying a study area.

The study area for the proposed Project was delineated to areas within 500 m from the existing TS and proposed expansion area boundary located southeast of Municipality of Wawa, and north of Anjigami Lake. The study area encompasses the proposed expansion area to the north and west of the station, as shown on **Figure 2-1**.

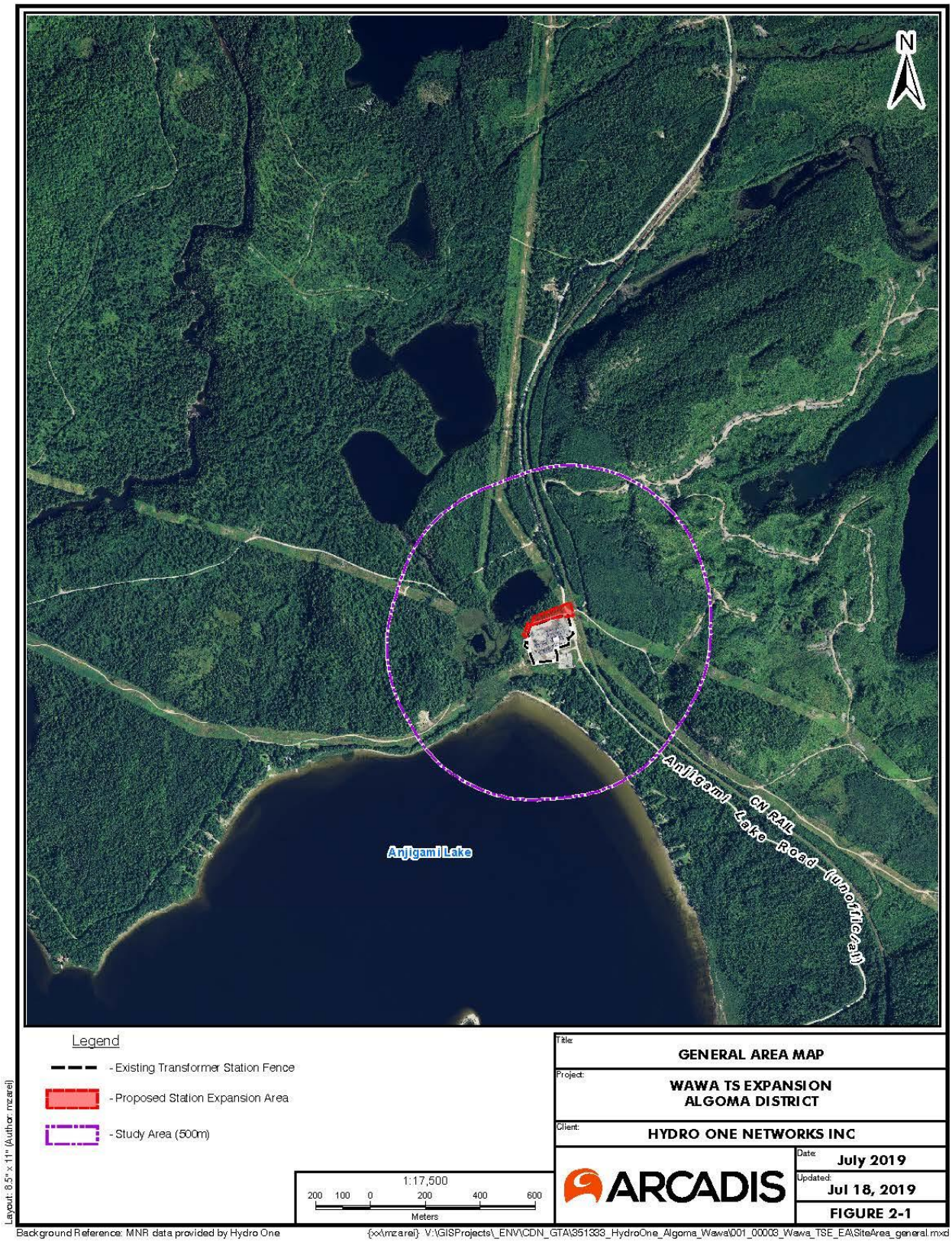

Figure 2-1: General Area Map

3 Consultation

Consultation is an important component of the Class EA process, as it provides those who may be interested in, or potentially affected by the proposed Project with timely and adequate information and opportunities to participate in the planning process. Consultation also allows the proponent to gain information and knowledge related to social, cultural, economic and environmental considerations of direct relevance to the proposed Project, as well as the means to inform and explain the approach to and value of the proposed Project.

The key principles that guide Hydro One's approach to communication and consultation include the following:

- Early, ongoing and timely communications and consultation;
- Clear project information;
- An open, transparent, and flexible consultation process;
- Respectful dialogue with FN&M communities, community officials, and project stakeholders;
- No surprise approach for elected officials, to ensure they have copies of all public facing materials before they are distributed to their constituents;
- The provision of 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 process and incorporation of such input, where feasible, into project decision-making.

The consultation process incorporated methods to encourage two-way communication involving: FN&M communities (identified by the Crown); federal, provincial and municipal government officials and agencies; local residents and property owners; potentially affected and interested persons; and interest groups. The project contact list is provided in **Appendix D-1**.

Consultation methods were selected to promote a comprehensive, transparent and adequate consultation approach. Consultation methods for the proposed Project included:

- Letters, flyers, and newspaper advertisements to announce and provide updates on the project;
- A CIC, a MFN CIS and a MNO Information Gathering Meeting, which provided the opportunity for interested parties including FN&M communities to learn more about the project and raise any issues or concerns with the Hydro One project team, and complete comment forms;
- Discussions with local elected officials;
- Meetings, conference calls and correspondence with key stakeholders;
- Establishment of a project contact list, through which interested parties received project updates via email and/or postal mail;
- Dedicated Community Relations and Indigenous Relations representatives; and,
- Establishment and maintenance of a project website (https://www.hydroone.com/Projects/WawaTS), which allows for the sharing of project information and updates.

The results of the consultation program are summarized in the sections below. Input was considered by the project team and incorporated into the project planning, where appropriate. Copies of consultation materials such as notices, notification letters, CIC display panels, presentation slides and correspondence are included in **Appendix D**. A copy of the project correspondence log is provided in **Appendix D-3**.

As discussed in **Section 1**, stakeholders were previously notified of the project in early-2017 when the it was initially assessed following the Class EA Screening Process (completed in December 2017). See **Appendix A-1** for the 2017 Class EA Screening Report.

3.1 Initial Notification

The 2017 Class EA Notice of Commencement letters were sent to MFN, government officials and agencies, as well as potentially affected and interested persons including community associations and property owners to inform stakeholders that Hydro One is initiating the Class EA for the Wawa TS Expansion Project.

In addition, a newspaper advertisement with the Notice of Commencement ran in the weekly local paper *Algoma Times* on July 12, 2017 and posted online wawa-news.com between July 17, 2017 and August 17, 2017.

The Notice of Commencement presented information regarding the need for and description of the proposed Project and associated regulatory processes, and solicited for questions and comments to be provided to Hydro One. Federal, provincial and municipal government officials and agencies were asked to provide comments with respect to potential concerns relating to their respective policies, mandates and/or jurisdictions.

Hydro One issued the Notice of Commencement to MFN in mid-March 2017, then again in late-May 2017 as a result of a change in leadership in the community. Betwen late-June 2017 and mid-July 2017, the notices were sent via email to 19 government organizations, officials at the Municipality of Wawa and several interest groups. In late-July 2017, the notices were issued to property owners within 500 m of the proposed expansion site by hand delivery. Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the Notice of Commencement, contact lists and summary of the correspondence with the stakeholders.

3.1.1 *Project Change Notification*

As discussed in **Section 1** the MECP recommended Hydro One to proceed with a Full Class EA for the project and advised that a Notice of Project Change be issued.

The Class EA Notice of Project Change letters were sent to FN&M communities (identified by the Crown), government officials and agencies, potentially affected and interested persons including community associations and property owners to inform stakeholders that there was a project change to the Class EA for the Wawa TS Expansion Project.

In addition, a newspaper advertisement with the Notice of Project Change ran in the weekly local paper *Algoma News* on March 13, 2019 and was posted online wawa-news.com between March 13, 2019 and April 13, 2019.

The Notice of Project Change presented information regarding the need for and description of the proposed Project and associated regulatory processes, the reason for change from a Class EA Screening Process to a Full Class EA Process, and solicited for questions and

comments to be provided to Hydro One. Federal, provincial and municipal government officials and agencies were asked to provide comments with respect to potential concerns relating to their respective policies, mandates and/or jurisdictions.

Hydro One issued the Notice of Project Change to five FN&M communities in mid-February 2019. The notices were sent via email to 13 different government organizations, officials at the Municipality of Wawa and interest groups in March 2019. The notices were also issued to property owners within 500 m of the proposed expansion site by hand delivery in early-June 2019, due to inaccessible conditions to properties as a result of snow-covered roads.

A copy of the Notice of Project Change can be found in **Appendix D-2**. Refer to **Appendix D-1** for the contact lists and **Section 3.2** for a summary of the consultation with the stakeholders.

3.2 First Nations and Métis Communities

The consultation requirements of the Class EA process apply to FN&M communities. Adhering to the Crown's duty to consult and accommodate under Section 35 of the *Constitution Act* (1982), Hydro One contacted the Ministry of Energy, Northern Development and Mines (ENDM) on December 11, 2018 to confirm consultation requirements with regard to potentially interested FN&M communities, and provided a description of the characteristics, location and scope of the proposed Project. On February 8, 2019, the ENDM, on behalf of the Crown, confirmed the Duty to Consult and advised that the following communities were to be included in the consultation process (see **Appendix C** for the Hydro One inquiry letter to the Crown and the Crown Duty to Consult delegation letter):

- Michipicoten First Nation (MFN);
- Batchewana First Nation (BFN);
- Garden River First Nation (GRFN);
- Missanabie Cree First Nation (MCFN); and,
- Métis Nation of Ontario (MNO).

The communities listed above were notified of the proposed Project and, throughout the consultation process were regularly informed of project updates and given opportunities to

provide input. This was achieved through direct mailings of notifications; provision of information and updates about the proposed Project, and offers by the Hydro One project team to meet with the community to present the proposed Project, and to address their issues or concerns.

A summary of the comments and concerns raised throughout the consultation process since the 2019 Notice of Project Change is provided in **Section 3.7.1**. The table includes a summary of efforts to address concerns and mitigate potential effects, as well as commitments made.

Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process that was undertaken in 2017, and to **Appendix D-3** for the summary of correspondence since the 2019 Notice of Project Change.

3.2.1 *Michipicoten First Nation*

Hydro One has been working with MFN since the initial notification of the project was issued in March and May 2017. Hydro One presented the project to Chief Tangie, members of the Council and community in mid-June 2017. The community expressed interest pertaining to archaeology and natural heritage resources within the expansion area, and Hydro One invited the community to participate in the field work. However, due to timing contraints, MFN was unable to participate in the environmental field survey which was undertaken in June 2017.

MFN participated in the Stage 2 Archaeological Assessment (AA) by reviewing the scope of work and providing monitors to participate in the Stage 2 AA field work. The field work was originally planned for the fall of 2017, however, due to the weather condition at the time with snow-covered grounds, the field work was postponed until the following year. Discussions between Hydro One and MFN continued regarding consultation and accommodation, and a Consultation Agreement was reached, signed and executed on July 19, 2018 to provide capacity funding for MFN to participate throughout the project, including participation in the Stage 2 AA (scope review and field work monitoring) which was completed in August 2018. See **Section 4.3** for more details on the Stage 2 AA.

In a letter to the MECP, dated July 25, 2018, MFN expressed concerns with the previous Screening level Class EA completed for the proposed Wawa TS Expansion Project. On review

of Hydro One's Screening Report, MFN had dispatched Environmental Management Liability Inc. (ELM) to inspect the project site in the morning of July 19, 2018. This inspection was completed to consider the proposed activity relative to existing environmental features. Based on this inspection, ELM identified a number of environmental issues which they felt were inadequately addressed in the 2017 Class EA Screening Report. In addition, the letter noted that no EA was completed in 1969 when the original TS was constructed. For these reasons, MFN requested that the Category B Class EA for the expansion of the TS be bumped up to at least a Category C. It was later clarified by the MECP that MFN meant to request for the project to be elevated from a Class EA Screening Process to a Full Class EA (as the Class EA process does not have defined categories), and not from a Class EA to an Individual EA, as could be inferred by their letter (**Appendix B-1**).

In response to the Part II Order request letter, Hydro One arranged a conference call with MFN on September 4, 2018. Prior to the conference call, Hydro One provided a response to MFN's Part II Order request letter (**Appendix B-2**), as well as a copy of the 2017 Field Survey Report prepared by Northern Bioscience in conjunction with the 2017 Class EA Screening Report. The meeting focused primarily on the findings of ELM's site visit and the likely presence of species of interest including Species at Risk (SAR). ELM's findings were compared to the findings of Northern Bioscience's field survey, and discrepancies between the findings were discussed. The meeting concluded with Hydro One committing to work with MFN to address the issues and concerns pertaining to potential effects to SAR and other natural heritage resources.

On October 26, 2018, a conference call was held to discuss the project schedule and Class EA process, as well as the MECP recommendation to proceed with a Full Class EA Process for this project (**Section 1**, **Section 3.4.2** and **Appendix B-3**). Hydro One committed to engage with MFN to collectively address and mitigate the community's concerns.

On November 29, 2018 a conference call was held to discuss the details of the project schedule, next steps regarding the Full Class EA Process, and how Hydro One and MFN could continue to work collaboratively together.

Hydro One sent a Notice of Project Change via email and registered mail to MFN on February 15 and 16, 2019, respectively. The letter also indicated that they would receive an invitation to the CIC for the upcoming summer in the Municipality of Wawa, and that Hydro One would also be available to share the same information in their community. Hydro One made a follow-up call on February 22, 2019, to ensure that the notification had been received and to welcome any questions, comments or concerns.

Following the meetings/calls and notification letter, Hydro One continued to engage with MFN by providing written comments to MFN on the environmental inspection memo prepared by ELM, dated February 2019 (see **Appendix D-5**).

During previous discussions, MFN expressed interest in engaging with their businesses, namely, Chapman Enterprises and Superior Aggregates, to procure services to Hydro One on this project. Hydro One committed to working with MFN to explore procurement opportunities. Information regarding contract opportunities was provided to the community in early-March 2019.

The Consultation Agreement was amended on April 1, 2019 to provide additional capacity funding for MFN to participate in the Full Class EA Process, which included hosting a Community Information Session (CIS), participating during the supplemental environmental field surveys as well as completing a Traditional Knowledge study for the project and reviewing the draft ESR.

On May 6, 2019, Hydro One provided information and invitation to the community to participate in the 2019 environmental field surveys to supplement the data collected in 2017 – a total of three separate scheduled site visits between late-May and late-June. Two monitors representing the MFN participated in all field visits on May 20, June 13/14, June 15/16 and June 26/27 alongside Hydro One's environmental consultant who conducted the surveys.

On May 8, 2019 a conference call was held to confim the date for a CIS to be hosted by MFN on June 13, 2019, discuss the field surveys and indigenous monitors participation, discuss a land ceremony to be held on May 20, 2019 on site, and discuss procurement opportunities.

On May 29 and May 30, 2019, via email and registered mail respectively, Hydro One provided an invitation, as well as information on the CIC that would be held in the Wawa Royal Canadian Legion, Branch 429 on June 12, 2019.

On June 6, 2019 a conference call was held to discuss the planning and logistics of the June 13 CIS. MFN provided a list of questions and concerns anticipated from the community, which primarily involved:

- Procurement opportunities; and
- Potential environmental effects and mitigation

As a result of the June 6 conference call, a site visit was scheduled on June 13, 2019 and MFN was invited to attend. The objective of the site visit was to provide a better understanding of the existing site conditions and the extent of the expansion, as well as to discuss and address the specific concerns raised by the community. ELM, representing MFN, attended the site visit. Hydro One committed to continue hosting site visits for the community throughout the project to provide updates on site.

On June 13, 2019 Hydro One representatives attended the MFN Community Office, and gave a presentation to Chief Tangie, members of Council and community and MFN consultants. Topics covered during the session included:

- Project overview and construction timelines;
- Class EA process and draft ESR timelines;
- Environmental field surveys conducted;
- Potential effects to natural environment and mitigation; and
- Indigenous procurement opportunities and how MFN can participate

See **Appendix D-5** for more details on the MFN CIS with the questions and responses.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email.

On August 29, 2019, Hydro One received comments on the draft ESR from MFN. Hydro One provided responses to the comments on September 13, 2019. More details can be found in Section 3.8 and Appendix D-7.

On September 18, Hydro One collaborated with MFN to implement the mitigation plan by collecting mature milkweed seed pods and transplanting milkweed plants on other suitable areas within Hydro One property. Some leftover seeds and dug-up plants were taken back to the community for spreading and transplanting.

Hydro One commits to continue to work with MFN throughout the project.

3.2.2 *Batchewana First Nation*

Hydro One initiated consultation by sending a Notice of Project Change via email and registered mail to the Batchewana First Nation (BFN) on February 15 and 16, 2019, respectively. This preliminary engagement activity took place early in the Class EA process to ensure that the BFN could provide input at an important stage in project planning. The letter also indicated that they would receive an invitation to the CIC for the upcoming summer in the Municipality of Wawa, and that Hydro One would also be available to share the same information in their community.

Hydro One made a follow-up call on February 22, 2019, to ensure that the notification had been received and to welcome any questions, comments or concerns and scheduled a conference call on April 11, 2019 to further discuss the project and how BFN could be engaged.

Topics discussed during the April 11 conference call included:

- Project overview and timelines;
- Class EA process and schedule; and,
- Engagement and capacity funding.

Hydro One also indicated that the community was welcome to participate in 2019 supplemental environmental field surveys that would be taking place during the upcoming field season.

During previous discussions, BFN expressed interest in procuring services to Hydro One on this project. Hydro One will continue to work with BFN to explore procurement opportunities. A list of contract opportunities available at Wawa TS was provided to the community on April 5, 2019.

On May 6, 2019, Hydro One provided information and invitation to the community to participate in the 2019 environmental field surveys to supplement the data collected in 2017 – a total of three separate scheduled site visits between late-May and late-June. Two monitors representing the BFN participated in the field visits on May 20 and June 26/27 alongside Hydro One's environmental consultant who conducted the surveys.

On May 29 and May 30, 2019, via email and registered mail respectively, Hydro One provided an invitation to the CIC, as well as information on the CIC that would be held in the Wawa Royal Canadian Legion, Branch 429 on June 12, 2019.

On June 17, 2019, an in-person meeting was held at the BFN Community Office to discuss the draft Capacity Funding Agreement Letter and next steps in the Class EA process. BFN indicated that a consultant will be retained to review the draft ESR during the review period in July and August. The draft Capacity Funding Agreement Letter was later executed on June 18, 2019 and sent to Hydro One on June 25, 2019. Hydro One commits to continue to work with BFN throughout the project.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. Hydro One followed up on August 6, August 23 and August 29, 2019 via emails and voicemails, no further comments or questions were received.

3.2.3 *Garden River First Nation*

Hydro One initiated consultation by sending a Notice of Project Change via email and registered mail to the Garden River First Nation (GRFN) on February 15 and 16, 2019, respectively. This preliminary engagement activity took place early in the Class EA process to ensure that the GRFN could provide input at an important stage in project planning. The letter also indicated that they would receive an invitation to the CIC for the upcoming summer

in the Municipality of Wawa, and that Hydro One would also be available to share the same information in their community.

Hydro One made a follow-up call on February 22, 2019, to ensure that the notification had been received and to welcome any questions, comments or concerns. No questions or concerns were raised regarding the proposed Project.

A list of contract opportunities available at Wawa TS was provided to the community on April 5, 2019. A teleconference call was held on April 18, 2019 for further discussions. Following the call, additional information was shared with GRFN by Hydro One to continue the discussion on possibility of GRFN accessing procurement opportunities associated with the proposed Project.

On May 6, 2019, Hydro One provided information and invitation to the community to participate in the 2019 environmental field surveys to supplement the data collected in 2017 – a total of three separate scheduled site visits between late-May and late-June. Hydro One did not receive any feedback from GRFN on whether they were interested in pursuing this opportunity.

On May 29 and May 30, 2019, via email and registered mail respectively, Hydro One provided an invitation to the CIC, as well as information on the CIC that would be held in the Wawa Royal Canadian Legion, Branch 429 on June 12, 2019. There was no feedback received from GRFN.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. Hydro One followed up on August 23, 2019 via voicemails, no further comments or questions were received.

3.2.4 *Missanabie Cree First Nation*

Hydro One initiated consultation by sending a Notice of Project Change via email and registered mail to the Missanabie Cree First Nation (MCFN) on February 15 and 16, 2019, respectively. This preliminary engagement activity took place early in the Class EA process to ensure that the MCFN could provide input at an important stage in project planning. The letter also indicated that they would receive an invitation to the CIC for the upcoming summer

in the Municipality of Wawa, and that Hydro One would also be available to share the same information in their community.

Hydro One made a follow-up call on February 22, 2019, to ensure that the notification had been received and to welcome any questions, comments or concerns. No questions or concerns were raised regarding the proposed Project.

A list of contract opportunities available at Wawa TS was provided to the community on April 5, 2019. A teleconference was held on April 12, 2019 for further discussions. Following the call, additional information was shared with MCFN by the Hydro One to continue the discussion on possibility of MCFN accessing procurement opportunities associated with the proposed project.

On May 6, 2019, Hydro One provided information and invitation to the community to participate in the 2019 environmental field surveys to supplement the data collected in 2017 – a total of three separate scheduled site visits between late-May and late-June. Hydro One did not receive any feedback from MCFN on whether they were interested in pursuing this opportunity.

On May 29 and May 30, 2019, via email and registered mail respectively, Hydro One provided an invitation to the CIC, as well as information on the CIC that would be held in the Wawa Royal Canadian Legion, Branch 429 on June 12, 2019. There was no feedback received from MCFN.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. Hydro One followed up on August 23, 2019 via voicemails, no further comments or questions were received.

3.2.5 *Métis Nation of Ontario*

Hydro One initiated consultation by sending a Notice of Project Change via email and registered mail to the MNO on February 15 and 16, 2019, respectively, to the following:

- Lands, Resources and Consultation Branch;
- Historic Sault Ste. Marie Métis Council; and,

- North Channel Council.

This preliminary engagement activity took place early in the Class EA process to ensure that the MNO could provide input at an important stage in project planning. The letter also indicated that they would receive an invitation to the CIC for the upcoming summer in the Municipality of Wawa, and that Hydro One would also be available to share the same information in their community. Hydro One made follow-up calls and left voicemails on February 22, 2019, to ensure that the notification had been received and to welcome any questions, comments or concerns.

On March 1, 2019, the MNO Consultation Assessment Coordinator called back and confirmed receipt of the letter. No questions or concerns were raised regarding the proposed Project.

A list of contract opportunities available at Wawa TS was provided to the community on April 5, 2019. On April 9, 2019 in a follow-up to the construction notification letter for the Marathon TS Expansion Project (another station expansion project related to the EWT transmission line), MNO responded via email, inquiring on behalf of MNO Regional Councillor Ernest Gatien whether consultation activities for expansion work at the three stations – Lakehead TS, Marathon TS and Wawa TS – can be grouped together as one project for consultation with MNO Regions 2 and 4. A phone discussion regarding the same ensued on April 15, 2019 between Hydro One and MNO to discuss the three different station projects and status of each. On April 18, 2019, an email was sent to MNO, including timelines for the Wawa TS project and offering a teleconference call for continuing consultation for the proposed Project.

On May 6, 2019, Hydro One provided information and invitation to the community to participate in the 2019 environmental field surveys to supplement the data collected in 2017 – a total of three separate scheduled site visits between late-May and late-June. Hydro One did not receive any feedback from MNO on whether they were interested in pursuing this opportunity.

On May 29 and May 30, 2019, via email and registered mail respectively, Hydro One provided an invitation to the CIC, as well as information on the CIC that would be held in the Wawa

Royal Canadian Legion, Branch 429 on June 12, 2019. The MNO Consultation Assessment Coordinator for Regions 4 and 7 responded to the CIC invitation by requesting that Hydro One present information on the proposed Project to the Wawa area rights-bearing Métis community.

Through email correspondence an Information Gathering Meeting was scheduled for June 17, 2019. At the meeting, Hydro One shared project information and address any issues and concerns raised by the community. The concerns raised primarily involved the potential effects to the natural environment, archaeological resources and land use, construction effects, and procurement opportunities. See **Appendix D-6** for the slides presented at the meeting.

On June 27, 2019 MNO requested for a site visit on July 9, 2019, which is being rescheduled due to schedule conflict.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. On the same day, the MNO acknowledged receipt of the information. No further comments or questions were received.

On September 19, 2019 the MNO indicated to Hydro One that a site visit is no longer needed.

Hydro One commits to continue to work with MNO throughout the project.

3.3 Federal Government & Agencies

As part of the consultation program for the project, the following federal government representatives and agencies were contacted in 2017 during the Class EA Screening Process:

- Canadian Environmental Assessment Agency (CEAA);
- Environment and Climate Change Canada (ECCC);
- Health Canada (HC) – Environmental Assessment Division;
- Indigenous and Northern Affairs Canada (INAC); and,
- Transport Canada (TC).

During the Class EA Screening Process undertaken in 2017, no concerns were raised by the federal agencies, and since the station expansion project itself did not change in scope, a

majority of the federal contacts from the previous Screening Process were not further consulted during the 2019 Full Class EA Process. Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process.

The Notice of Project Change for the Full Class EA Process was issued on March 4, 2019 via email to Indigenous Relations and Northern Affairs Canada and Indigenous Services Canada – Ontario Regional Office (formerly INAC). No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

Refer to **Appendix D-3** for the summary of correspondence since the 2019 Project Change Notification.

3.4 Provincial Government & Agencies

As part of the consultation program for the project, the following provincial government representatives and agencies were contacted in 2017 during the Class EA Screening Process:

- Ministry of Energy (ENERGY) – Indigenous Energy Policy;
- Ministry of Northern Development and Mines (MNDM);
- Ministry of the Environment and Climate Change (MOECC);
    - Environmental Assessment and Permissions Branch (EAPB)
    - Sudbury District Office, Northern Region
- Ministry of Municipal Affairs and Housing (MMAH);
- Ministry of Natural Resources and Forestry (MNRF) – Wawa District Office; and,
- Ministry of Tourism, Culture and Sport (MTCS) – Heritage Program Unit.

During the Class EA Screening Process undertaken in 2017, no concerns were raised by MMAH, and since the station expansion project itself did not change in scope the MMAH was not further consulted during the 2019 Full Class EA Process. Refer to the 2017 Class EA

Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process.

The Notice of Project Change for the Full Class EA Process was issued on March 4, 2019 via email to the following provincial agencies:

- Ministry of Energy, Northern Development and Mines (ENDM);
- Ministry of the Environment and Climate Change (MECP);
    - Environmental Assessment and Permissions Branch (EAPB)
    - Sudbury District Office, Northern Region
    - Species At Risk Branch (SAR Branch) (notified in June 2019)
- Ministry of Indigenous Affairs (MIA);
- Ministry of Natural Resources and Forestry (MNRF) – Wawa District Office; and
- Ministry of Tourism, Culture and Sport (MTCS) – Heritage Program Unit

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

Additional details on correspondence with the following provincial agencies can be found in the sections below:

- Ministry of Energy, Northern Development and Mines (ENDM);
- Ministry of the Environment, Conservation and Parks (MECP);
    - Environmental Assessment and Permissions Branch (EAPB)
    - Sudbury District Office, Northern Region
    - Species At Risk Branch (SAR Branch)
- Ministry of Natural Resources and Forestry (MNRF) – Wawa District Office; and,
- Ministry of Tourism, Culture and Sport (MTCS) – Heritage Program Unit.

A summary of the comments and concerns raised throughout consultation process since the 2019 Project Change Notification is provided in **Section 3.7.3**. The table includes a summary of efforts to address concerns and mitigate potential effects, as well as commitments made.

Refer to **Appendix D-3** for the summary of correspondence since the 2019 Project Change Notification.

3.4.1 *Ministry of Energy, Northern Development and Mines*

As discussed in **Section 3.2**, on February 8, 2019 the ENDM confirmed the list of FN&M communities to be included in the consultation process for the proposed Project area (**Appendix C**). The ENDM recommended that Hydro One notify these FN&M communities, provide project information and opportunities for input, and maintain a record of interactions with the communities. Additionally, the Ministry requested that they be kept up to date on the consultations.

Hydro One issued the Notice of Project Change to the ENDM on March 4, 2019.

The ENDM responded on March 5, 2019 with a request for status update on the proposed Project and the project schedule. Hydro One provided the Class EA schedule and indicated that the in-service date is 2021. ENDM asked if a 2020 in-service date could be met and Hydro One responded that it would not be feasible. The ENDM also inquired about Hydro One's consultation efforts with MFN. Hydro One indicated that they had recently signed and executed a Consultation Agreement with the community in 2018 and that they would be completing a Traditional Knowledge and Land Use study as well as hosting an Community Information Session in the MFN community. No further comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

3.4.2 *Ministry of the Environment, Conservation and Parks (MECP) – Environmental Assessment and Permissions Branch*

Hydro One has been in discussions with the Ministry of Environment, Conservation and Parks (MECP) – EAPB since the Class EA Part II Order request was submitted by MFN in July 2018 (**Appendix B-1**).

As discussed in Section 1.1, through ministry review of the Class EA Screening Process documentation as well as meetings, conference calls and email correspondence between August and October 2018, MECP issued a letter to Hydro One in November 2018 advising that the Class EA Screening was considered incomplete and recommended Hydro One to undertake the additional work to complete a Full Class EA Process. As such, the Part II Order request was not considered, but rather, the MECP considered there to be a non-compliance issue with respect to the screening criteria, requiring the Full Class EA process to be followed (**Appendix B-3**).

The MECP advised that Hydro One would not be starting from the beginning of the assessment process and would be able to use the field survey data collected in 2017, as well as filling in the gaps from the Class EA Screening Process to complete the Full Class EA Process for the Wawa TS Expansion Project, which would help address MFN's concerns. MECP encouraged MFN and Hydro One to continue to work together.

Hydro One issued the Notice of Project Change to the MECP – EAPB on March 4, 2019. No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

3.4.3 *Ministry of the Environment, Conservation and Parks (MECP) - Sudbury District Office, Northern Region*

Hydro One issued the Notice of Project Change to the MECP – Sudbury District Office, Northern Region on March 4, 2019. No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

Hydro One sent an email on June 21, 2019 to provide a project update with regards to the indigenous and public consultation, supplemental environmental field surveys, draft ESR and

project timelines. The MECP EA Coordinator responded on June 24, 2019 and indicated that they have no further comments at this time, however advised Hydro One to engage the MECP SAR Branch and submit a copy of the draft ESR to the SAR Branch for their comment.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email.

On August 29, 2019, Hydro One received comments on the draft ESR from the MECP. Hydro One provided responses to the comments on September 13, 2019. More details can be found in Section 3.8 and Appendix D-7.

3.4.4 *Ministry of the Environment, Conservation and Parks (MECP) – Species at Risk Branch*

Hydro One sent an email on June 24, 2019 to the MECP – SAR Branch to provide the project information and to request for a SAR Biologist/Planner to be assigned on this project. As the Ministry of Natural Resources and Forestry (MNRF) was previously consulted on the Class EA Screening Process for this project, Hydro One wanted to ensure that MECP SAR Branch received the past documentation related to SAR on this project. The email included a background of the project and the reason for the project change; the 2017 Class EA Screening Report and 2017 Field Survey Report were attached to provide further background information on previous comments received from the MNRF.

A follow up email was sent on July 5, 2019. MECP SAR Branch responded with clarifying questions and assigned a SAR Management Biologist to review the project. Hydro One followed up on July 16, 2019 with MECP SAR Branch to offer a call to further discuss the project. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

3.4.5 *Ministry of Natural Resources and Forestry (MNRF) – Wawa District Office*

As part of the 2017 Class EA Screening Process, Hydro One consulted with the MNRF with regards to SAR. At that time, Hydro One provided the 2017 Field Survey Report to MNRF for review and received two recommendations:

- Clearing for the construction to be conducted after September 20th, or alternatively to be conducted prior to May 15; and,
- Maintain the milkweed on site or transplant it (in the early spring or fall) to a nearby site. This will ensure that any returning monarch butterflies will have some habitat to lay their eggs.

At that time, Hydro One committed to take these recommendations into consideration during the planning and scheduling of the construction to maintain and preserve the milkweed on site. Furthermore, post-construction, Hydro One will spread seeds from the remaining milkweed at strategic locations on the site. Hydro One indicated that this should address the MNRF's comments and welcomed any questions or comments. No further comments were received.

On September 13, 2018, Hydro One sent an email to the MNRF to inform them that the MFN submitted a Part II Order request in late-July 2018 to bump up the Wawa TS Expansion Project to an individual EA. One of MFN's concerns pertains to SAR on the station expansion area and MNRF had previously indicated in their email on July 5, 2017 that there was no known SAR in the project area. Hydro One requested that the MNRF send any updated SAR information since July 2017, since this information would help Hydro One address MFN's concerns and apply appropriate mitigation.

In the same September 13, 2018 email, MNRF was also informed that through detailed engineering and design, an additional small expansion area is required along the western boundary of the existing fence in order to accommodate for site grading (i.e., expansion area to the west), which was outside of the original scope of the expansion presented in 2017. Hydro One also indicated that previous field surveys completed in 2017 had already covered this small expansion area and no further surveys were required.

On October 15, 2018, MNRF responded that "At this time, MNRF doesn't have any known SAR occurrences within 1 km of the Hydro One site".

Hydro One issued the Notice of Project Change to the MNRF – Wawa District on March 4, 2019. No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

Hydro One sent an email on June 21, 2019 to provide a project update with regards to the indigenous and public consultation, supplemental environmental field surveys, draft ESR and project timelines. In the email, Hydro One also inquired about information on trap lines and/or bait harvesting areas near the Wawa TS as this was raised from the June 17 MNO Information Gathering Meeting.

A follow up email was sent on July 5. MNRF responded on July 18 and indicated that: "Two bear management areas, one baitfish area and one trapline area have been identified by the MNRF."

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

3.4.6 *Ministry of Tourism, Culture and Sport – Heritage Program Unit*

As part of the 2017 Class EA Screening Process, Hydro One consulted with the MTCS with regards to cultural heritage resources. Hydro One provided the completed MTCS Evaluation of Built Heritage Resources and Cultural Heritage Landscapes checklist, which indicated that no Cultural Heritage Evaluation Report would be required (**Appendix E-2**). Hydro One also indicated to MTCS that based on the results of NextBridge's Stage 1 Archaeological Assessment, Hydro One had retained Central Archaeology to conduct a Stage 2 Archaeological Assessment. The Stage 2 AA field work was completed in August 2018 and based on the Stage 2 AA report which was accepted by the MTCS (**Appendix E-3**), no further archaeological assessment was recommended, see **Section 4.3** for more details on cultural heritage resources.

Hydro One issued the Notice of Project Change to MTCS, Heritage Program Unit on March 4, 2019.

The MTCS responded on March 5, 2019 indicating that Camp Anjigami should be included on the project contact list. Hydro One responded that they are already on the project contact list, and that they have been and will continue to receive project notices. Hydro One noted

that Camp Anjigami received the project notice during the Class EA Screening Process completed in 2017 and did not express any concern.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. The MTCS requested for a copy of the June 12 CIC display panels to be included in their file, Hydro One provided the panels on the same day on June 21, 2019. No further comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email.

On August 29, 2019, Hydro One received comments on the draft ESR from the MTCS during the review period. More details can be found in Section 3.8 and Appendix D-7.

3.5 Municipal Government and Agencies

As part of the consultation program for the proposed Project, the Mayor and Chief Administrative Officer (CAO)/Treasurer of the Municipality of Wawa were contacted.

During the Class EA Screening Process undertaken in 2017, no concerns were raised by the Municipality of Wawa. Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process.

The Notice of Project Change for the Full Class EA Process was issued on March 4, 2019 via email. No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on May 29, 2019 via email. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

Refer to **Appendix D-3** for the summary of correspondence since the 2019 Project Change Notification.

3.6 Potentially Affected and Interested Persons, Businesses and Interest Groups

Consultation opportunities were provided to potentially affected and interested persons, businesses and interest groups throughout the Class EA process. Property owners within an 500 m radius of the proposed Wawa TS were provided project notifications by means of hand delivery and advertisements on the weekly local newspaper *Algoma News* and the online website wawa-news.com

In addition, Hydro One encouraged interested persons to sign up for the project email distribution list to be notified on project updates.

A summary of the comments and concerns raised throughout consultation process since the 2019 Project Change Notification is provided in **Section 3.7.5**. The table includes a summary of efforts to address concerns and mitigate potential effects, as well as commitments made.

Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process that was undertaken in 2017, and to **Appendix D-3** for the summary of correspondence since the 2019 Project Change Notification.

3.6.1 *Correspondence with Potentially Affected and Interested Persons, Businesses and Interest Groups*

As part of the consultation program for the project, the following interest groups were contacted in 2017 during the Class EA Screening Process:

- Algoma Central Railway/Agawa Canyon Tour Train (CN Rail);
- Algoma Fish & Game Club;
- Algoma Sno-Plan Affiliation;
- Camp Anjigami;
- Coalition for Algoma Passenger Trains;
- Economic Development Corporation of Wawa; and,

- Grant Lake Forest Resources Ltd.

In addition to the interest groups listed above, local property owners within 500 m of the project area also received project notifications via hand delivery.

During the Class EA Screening Process undertaken in 2017, no concerns were raised by the interest groups and property owners. Refer to the 2017 Class EA Screening Report (**Appendix A-1**) for the summary of the correspondence during the Class EA Screening Process.

The Notice of Project Change for the Full Class EA Process was issued on March 12, 2019 via email to interest groups and via hand delivery to the property owners in early-June 2019, due to inaccessible conditions to properties as a result of snow-covered roads. No comments were received.

An invitation to attend the June 12 CIC was subsequently issued on June 3, 2019 via email to interest groups and via hand delivery to property owners in early-June 2019. No comments were received.

On July 24, 2019, Hydro One sent the Notice of Completion of the draft ESR via email. No further comments or questions were received.

Refer to **Appendix D-3** for the summary of correspondence since the 2019 Project Change Notification.

3.6.2 *Community Information Centre*

Hydro One issued invitations to the CIC in late-May and early-June 2019. The invitations publicly announced Hydro One's plan to host a CIC on June 12, 2019 to share information about the proposed Project and gather input from the community and members of the public. It included details of where and when the event was being held, and was issued in both French and English (**Appendix D-2**).

Invitations were sent out via email and Canada Post mail, to all municipal, provincial and federal government officials and agencies, FN&M communities, potentially affected and interest persons, and interest groups. Invitations were hand delivered to property owners. In addition, the CIC invitation was published in the local weekly *Algoma News* newspaper on May

29, 2019 and June 5, 2019, and was posted online wawa-news.com on May 29, 2019 to June 29, 2019.

On June 12, 2019, Hydro One hosted a CIC for the proposed Project. The event was held from 5:00 pm to 7:00 pm at the Wawa Royal Canadian Legion Branch 429, located at 51 Broadway Avenue in the Municipality of Wawa. The venue is located approximately 20 km northwest of the project study area.

The purpose of the CIC was to share information on the proposed Project, the Class EA process, next steps in the planning and approvals process, and to gather input from the public. A set of ten descriptive panels were displayed to allow attendees to obtain information about the proposed Project, and to facilitate one-on-one discussions with the Hydro One project team. The display panels are provided in **Appendix D-4**.

Six individuals attended the CIC, including: local residents, property owners near Wawa TS and recreational users of snowmobile trails near the station.

Project team representatives including the Hydro One Project Manager, Community Relations Officers and Environmental Planners were on hand to answer questions, hold discussions with participants, and to listen to participants' input. Comment forms were also available to provide attendees with the opportunity to record comments and/or concerns and to provide feedback. A copy of the comment form is provided in **Appendix D-4**.

No comment forms were submitted during and after the CIC.

Key themes from the comments received during the CIC include the following:

- Construction-related impacts
    - Users of Anjigami Lake Road asked if the road would be impacted by the project. Hydro One indicated that the road will not be affected by the project and will not be restricted for use during construction.
    - Recreational users of the nearby snow mobile trails were inquiring whether access to and use of Anjigami Lake Road would be restricted during

construction. Hydro One responded that the existing road will not be impacted nor restricted.

- The owner of Anjigami Camp asked if the camp would be impacted by the project. Hydro One responded that the camp is not close to the construction activities and will not be affected.

- Construction timelines
    - Hydro One indicated that the work within the station fence has already started in June 2018, and work within the expansion area could begin as early as October 1, 2019 to meet an in-service date of October 2021.

- Future expansion and/or upgrade plans at Wawa TS and nearby transmission lines (non-project related)
    - A property owner near the station asked if there are any future plans to expand the Wawa TS or upgrade the lines near the station. Hydro One responded that there will be upcoming station work to replace end-of-life electrical equipment, as well as the associated line work near and around the station. The timeline for this work is currently planned for spring 2021. Hydro One does not have any other station or line upgrade plans at Wawa TS at this time.

Section 3.7.5 provides a summary of the comments and concerns raised at the CIC and Hydro One's efforts to address concerns or mitigate potential effects.

3.7 Summary of Key Comments and Concerns

Tables 3-1 to 3-5 provide a summary of the comments and concerns raised from the interested parties throughout the consultation process. A summary of stakeholder engagement and consultation undertaken during the Class EA process is provided in **Sections 3.2 to 3.6** and **Appendix D-3**.

3.7.1 *First Nations and Métis Communities Comments and Concerns*

Table 3-1: Summary of First Nations and Métis Communities Comments and Concerns

THEME	COMMENT/CONCERN	RESPONSE
Project Information		
Project Cost	What is the capital expenditure on this project?	The cost of the Wawa TS Expansion is approximately $40M.
Land Ownership	Who used to own the land?	Hydro One acquired the land from Grant Lake Forest Resources Ltd., a private land owner.
Project Scope	Will Hydro One be abandoning portions of existing footprint of the Wawa TS? If so, will the land be remediated.	The project involves an expansion of the Wawa TS to accommodate the new EWT transmission line. Hydro One will not be abandoning any land.
Environmental Assessment		
EA for the original station construction	The original construction of the Wawa TS occurred without a proper EA and wants to ensure that the current expansion is supported by a detailed assessment.	A Full Class EA is being completed for the Wawa TS Expansion Project. The EA process includes consultation and environmental studies to identify potential effects and associated mitigation, which will be documented in this ESR.
Socioeconomic		
Archaeological/Cultural Heritage	Communities requested to be notified if artifacts or culturally significant items are recovered.	Hydro One has committed to providing updates on any artifacts or culturally significant items that are recovered to the communities.
Traditional Knowledge and Land Use	MFN requested to engage in and conduct a traditional knowledge and land use study.	Hydro One provided budget for a traditional knowledge study and results will be incorporated in the project accordingly.

THEME	COMMENT/CONCERN	RESPONSE
Traditional Plant Species	MFN indicated that the 2017 Screening Process does not address plant species that are of traditional medicinal value to MFN.	Hydro One provided budget for a traditional knowledge study and results will be incorporated in the project accordingly.
	MNO inquired if Hydro One studied any traditional use plants.	Hydro One reached out to FN&M communities for their feedback including information about Aboriginal and/or treaty rights or sites of cultural significance since February 2019 and will incorporate the information in the draft ESR, as appropriate.
	MNO raised the significance of the Morel mushroom to the community.	Hydro One will document this in our project files.
Natural Environment		
Vegetation Survey	Red Spruce was identified during MFN site investigations by ELM in 2018, but not in the Hydro One reporting. The site was last harvested for trees in the 1960s and had 50 years to recover, and there should still be Red Spruce on site.	The field survey conducted in 2017 observed Black Spruce and White Spruce, but no Red Spruce.
SAR Study	Eastern Whip-poor-will – Timing and Number of Visits – Northern Bioscience did not follow the draft MNRF protocol that recommends repeat (2-3) surveys for whip-poor-wills during the optimum survey window around the full moon. There was only 16% visible moon during the survey.	Northern Bioscience, who conducted the 2017 fieldwork, noted that the extent of the survey is scaled to the perceived degree of risk and MNRF did not express concerns for whip-poor-will habitat at the site; and also noted that the lack of a full moon does not preclude detecting whip-poor-wills if they were present on site as they often call even in the absence of the full moon.

THEME	COMMENT/CONCERN	RESPONSE
	Eastern Whip-poor-will – Air Temperature during Survey – MFN expressed concern that the 2017 fieldwork was done at below optimum temperatures based on temperature readings obtained from the Wawa Airport that were less than 10ºC.	The survey was completed at temperatures between 10 to 12ºC based on on-site temperature measurements as indicated in the field report.
SAR	Milkweed and Monarch Butterfly – There is significant milkweed growth on-site.	Yes, this was acknowledged in the Northern Bioscience field survey report. Native common milkweed is rare in northern Ontario and most, if not all, occurrences in northern Ontario are from intentional or inadvertent introductions. Monarch Butterflies are considered Special Concern in Ontario but have recently been assessed as Endangered by COSEWIC[1]. Therefore, to be proactive, HONI has proposed mitigation, which has been discussed with MNRF (MFN was not aware of this). Although milkweed was likely introduced during the construction of the station (or via the adjacent railway), it is worthwhile transplanting the plants or spreading the seedpods to create additional habitat and replace what is lost in the expansion. Hydro One is committed to developing mitigation measures to address the milkweed and monarch butterfly.

[1] Rob Foster was a coauthor on the COSEWIC national status report for Monarch

THEME	COMMENT/CONCERN	RESPONSE
SAR Habitat	Eastern Whip-poor-will – Habitat – MFN commented that the area looked like Eastern Whip-poor-will habitat.	Northern Bioscience noted that potential habitat is abundant in northern Ontario in that any open area suitable for foraging with adjacent forest edge in which to nest is potentially suitable breeding habitat, but that it does not mean it is actually occupied (since breeding habitat is likely not limiting for this species nor the reason for its decline, at least not in northern Ontario). There also appears to be a tendency for territories to be adjacent to other occupied territories (as in the Wawa plume kill) and that does not appear to be the case at the Wawa TS as there are no known reports near the station.
	There is significant habitat of SAR birds on-site including Eastern Wood-Pewee and potentially Canada Warbler.	Northern Bioscience noted that they had walked around the whole site, as well as on the north side of the pond, and a Canada Warbler was heard on the access road to the north, so they are in the area. As noted in the response to the original MFN review, they stated that the site is extremely small (0.6 ha) and can only support at most one or two pairs of SAR birds, as there is abundant similar suitable habitat in the surrounding landscape, breeding habitat is unlikely to be limiting for these species (at least in the area). In addition, there will remain a buffer of 30-80 m wide between the expansion area and the pond/embayment.
Breeding Bird Survey	Forest Bird Monitoring Program (FBMP) protocol for breeding bird surveys were not followed in terms of the number of surveys (FBMP uses 2 surveys), for the 2017 field work.	Northern Bioscience stated that a single visit point count survey was considered adequate given the site size, perceived impacts, and likely mitigation (e.g., clearing outside the bird breeding season). They also stated that in any event, these individuals may not be present by the time the project is undertaken since they may have established a territory elsewhere (potentially due to low site fidelity) or may have died (e.g., in migration). Conversely, the birds may have established territories between when the survey was conducted

THEME	COMMENT/CONCERN	RESPONSE
		and construction. Regardless of the number of surveys that were conducted, none of the songbird species observed have habitat protection under the *Endangered Species Act* (ESA), the mitigation would be the same *as is currently planned* (i.e., clear any trees outside the breeding season).
Amphibian Survey	2017 amphibian surveys were not conducted within 3 days of a rain.	Northern Bioscience acknowledged this but there are no SAR amphibians whose range overlaps the station expansion site, no vernal pools that would serve as SWH, and that the buffer that will be left as mitigation (see above) would be sufficient to protect any pond-breeding amphibians. It was also unlikely in any case that the Ecoregion 3E threshold for SWH would be met for pond-breeding amphibians and that the mitigation would be the same (i.e., buffer) even if it was.
Wildlife	Impact to birds and nests	Clearing of trees and vegetation is to occur after October 1, outside of the breeding season for birds and bats.
	Wildlife to be caught in the new station fence	Chain linked fence will be used for the new fence, same as the existing station fence. HONI has not had any issues with wildlife being caught in the chain linked fence.
	Moose population has been declining, has a study been done to know what the population is?	A description of the existing environment including terrestrial features will be summarized in the draft ESR.
Wildlife Habitat	How much vegetation will be cleared	Vegetation removal is required to accommodate the station expansion, and will require approximately 3 meters beyond the new station fence to install station grounding.

THEME	COMMENT/CONCERN	RESPONSE
	Use of herbicide	HONI Construction confirmed that our Maintenance group is not currently spraying inside the station.
	The pond/embayment looks like suitable turtle habitat	Northern Bioscience acknowledged that the pond is potentially suitable although none were seen during the surveys. This was also stated in the field report and in the response to the original MFN review. The same mitigation would be applied (i.e., buffer) in any event.
	Impact to the nearby pond north of the station	No significant impacts to wildlife habitat in the pond are anticipated from the proposed expansion.
Consultation and Accommodation		
Consultation	MFN expressed that Hydro One should engage in appropriate consultation with MFN.	Hydro One is willing and committed to work with MFN to address any of their concerns related to the expansion of the Wawa TS. A Consultation Agreement has been signed with MFN to provide capacity funding for the community to participate throughout the project.
Accommodation	MFN expressed that they should be accommodated for having a reserve nearest to the project site.	Hydro One and MFN signed a Consultation Agreement on July 19, 2018, which was amended on April 1, 2019, which included funding.
Capacity Funding	Communities want to participate throughout the Class EA process and requested for capacity funding.	Hydro One will work with the communities to provide capacity funding where appropriate.

THEME	COMMENT/CONCERN	RESPONSE
Employment/Economic Opportunities	Communities requested to be informed of any employment and procurement opportunities.	Hydro One provided opportunities for procurement (e.g., aggregate, concrete), operated equipment and labour (provided that the personnel meets Hydro One qualifications) to the communities and will keep communities informed of any future employment opportunities for the proposed Project.
Employment/Economic Opportunities	How many crew members will be working on site and how many will be from indigenous communities?	There will be between 10-30 workers on site, depending on the phase of the project. Hydro One will include as many indigenous workers as possible provided that they meet the proper qualification and training requirements.
Construction		
Access Road	Impact to Anjigami Lake Road	The private road will not be impacted, and will not be restricted for use during the length of construction.
Laydown	Where is the laydown area?	The laydown area will remain on Hydro One property. The nearby transmission line corridor may be used, if required.
Setback from water body	What is the setback distance from the nearby body of water?	The setback distance is approximately 20-30 m, from the expansion area.
Hunting season	Moose and duck hunting occur in the Fall, which conflicts with construction timelines	The civil work within the station has been completed, and hence the traffic will be minimized for the remainder of construction. The private road will not be restricted for use during the length of construction.

THEME	COMMENT/CONCERN	RESPONSE
Dust and Noise	Information included in the 2017 Class EA Screening does not discuss potential dust and noise issues and mitigation measures.	Potential environmental effects and mitigation measures are provided in the draft ESR.
Invasive Species	Spread of invasive species through construction equipment	Hydro One will adhere to Clean Equipment Protocol to the extent possible to prevent the spread of invasive species .
Operation and Maintenance		
Access Road	Impact to Anjigami Lake Road post-construction	The private road will not be impacted, and will not be restricted for use during the length of construction.

3.7.2 *Federal Government and Agencies Comments and Concerns*

Table 3-2: Summary of Federal Agencies Comments and Concerns

THEME	COMMENT/CONCERN	RESPONSE
No comments received.		

3.7.3 *Provincial Government and Agencies Comments and Concerns*

Table 3-3: Summary of Provincial Agencies Comments and Concerns

THEME	COMMENT/CONCERN	RESPONSE
Class EA Consultation		
Project Contact List	MTCS noted that Camp Anjigami should be included on the project contact list.	Hydro One confirmed that Camp Anjigami is on the project contact list and noted that the stakeholder received the project notice during the Class EA Screening Process in 2017 and did not express any concern.

THEME	COMMENT/CONCERN	RESPONSE
Indigenous Consultation	ENDM inquired about Hydro One consultation efforts with MFN.	Hydro One signed and executed an agreement with the community for capacity funding on the project and the community will complete a Traditional Knowledge and Land Use study as well as participate in natural heritage surveys. Hydro One also hosted a CIC in the community.
Project Information		
Project Schedule	ENDM requested a status update and project schedule, and also asked if a 2020 in-service date could be met.	Hydro One provided the Class EA schedule and indicated that the in-service date is 2021. They asked if a 2020 in-service date could be met and Hydro One responded that it would not be feasible.

3.7.4 *Municipal Government and Agencies Comments and Concerns*

Table 3-4: Summary of Municipal Government and Agencies Comments and Concerns

THEME	COMMENT/CONCERN	RESPONSE
No comments received.		

3.7.5 *Public Comments and Concerns*

Table 3-5: Summary of Public Comments and Concerns

THEME	COMMENT/CONCERN	RESPONSE
Project Information		
Project Schedule	When will construction begin?	Hydro One indicated that the work within the station fence has already started, and work within the expansion area could begin as early as October 1, 2019 to meet an in-service date of October 2021.
Construction		

THEME	COMMENT/CONCERN	RESPONSE
Access Road	Impact to Anjigami Lake Road	The private road will not be impacted, and will not be restricted for use during the length of construction.
Access to Snow Mobile Trails	Impact to Anjigami Lake Road (which provides access to nearby snow mobile trails)	The private road will not be impacted, and will not be restricted for use during the length of construction.
Camp Anjigami	Impact to Camp Anjigami	Camp Anjigami is not close to the project site, therefore it will not be affected by the project.

3.8 Final Notification and Draft ESR Review Period

The Final Notification (Notice of Completion of the draft ESR) was sent to First Nations and Métis communities, government representatives and agencies, potentially affected and interested persons and groups, and property owners on July 24, 2019 (see contact lists in Appendix D-1). The notification publicly announced that Hydro One had completed the draft ESR for the proposed Project, and was seeking input during the 30-day public review and comment period as per the Class EA process. The Final Notification indicated that the draft ESR could be viewed on Hydro One's project website and the location where hardcopy of the draft ESR could be viewed. The notification also included information on how interested parties could submit written comments to Hydro One on the draft ESR and the process for submitting a request (a Part II Order request) to the Minister of the Environment, Conservation and Parks requesting that the proposed undertaking be subjected to a higher level assessment (an individual Environmental Assessment). The Final Notification can be found in Appendix D-2.

The Final Notification was distributed via newspaper advertisements, email, and hand-delivered mail. Advertisements were published in the Algoma News on July 24, 2019 and July 31, 2019 and posted online wawa-news.com between July 24, 2019 and August 30, 2019 and on the project website.

A copy of the draft ESR was available for review in hardcopy at the following location:

Municipality of Wawa Municipal Office
40 Broadway Avenue
Wawa, ON, P0S 1K0
Tel: 807-229-1340

The draft ESR was also available on the project website:

http://www.hydroone.com/Projects/WawaTS

Hydro One provided a 30-day review period, from July 29, 2019 to August 30, 2019, to allow sufficient time for review and comment on the draft ESR. Comments regarding the draft ESR were to be submitted to Hydro One no later than 4:30 p.m. on August 30, 2019 at the following address:

Yu San Ong
Environmental Planner
Hydro One Networks Inc.
483 Bay Street, North Tower, 12th Floor
Toronto, ON M5G 2P5

Community.Relations@HydroOne.com
1-877-345-6799

The EA Act has provisions that allow interested parties to ask for a higher level of assessment for a Class EA project if they feel that outstanding concerns have not been adequately addressed by Hydro One. This higher level of assessment is referred to as a Part II Order request and must be addressed in writing to the MECP using the MECP form which is available online on the Government of Ontario Central Forms Repository website http://www.forms.ssb.gov.on.ca/ by searching "Part II Order" or "012-2206E". Part II Order request forms must be received no later than 4:30 p.m. on August 30, 2019, at the following addresses:

Minister of the Environment, Conservation and Parks
Ferguson Block, 77 Wellesley St. W., 11th Floor
Toronto, ON M7A 2T5
Fax: 416-314-8452
Email: Minister.mecp@ontario.ca

Director, Environmental Assessment and Permissions Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave. W., 1st Floor
Toronto, ON M4V 1P5
Email: enviropermissions@ontario.ca

A duplicate copy of a Part II Order request must also be sent to Hydro One at the address noted above.

No Part II Order requests were received to elevate this project from a Class EA to an Individual EA. However, comments were received during the 30-day draft ESR review period

by Michipicoten First Nation (MFN), MECP and Ministry of Tourism, Culture & Sport (MTCS). Hydro One has considered all the issues and concerns identified and, where possible, Hydro One has attempted to resolve them prior to issuing the final ESR to the MECP. The comments received on the draft ESR and Hydro One's responses and actions taken to address them are summarized in the table below. Details of the correspondence related to the draft ESR review period can be found in Appendix D-7.

Michipicoten First Nation (MFN)

On August 29, 2019, Hydro One received comments on the draft ESR from MFN. Environmental Liability Management Inc. (ELM), retained by MFN, had commented in their review that they were in concurrence with the methodologies and interpretation of findings from the field surveys conducted by Northern Bioscience, retained by Hydro One. Below is a summary of topics discussed in the comments:

- Review and interpretation of findings from field surveys on the following
    - Birds
    - Myotis
    - Amphibians
    - Monarch
    - Significant Wildlife Habitat
- Traditional use of plants, wildlife and water by MFN
- Environmental recommendations such as timing windows for tree removal and standard best management practices for construction

In summary, MFN indicated that no further surveys are necessary and that it appears unlikely that SAR will be adversely disturbed by the project, given that appropriate timing windows and other BMPs are implemented during construction.

MFN also noted that a mitigation plan for the Monarch has been developed, though has not been shared to date. The mitigation plan was later implemented through collaboration with MFN on September 18, 2019, as documented in Section 3.2.1, where mature milkweed seed pods were collected and milkweed plants were transplanted on other suitable areas within

Hydro One property. Some leftover seeds and dug-up plants were taken back to the community for spreading and transplanting.

On September 13, 2019, Hydro One provided the responses to MFN's review comments and incorporated the revisions to the final ESR, as required. It was also noted that the traditional knowledge study is still outstanding at that time. Section 3.2.1 has been updated and includes a summary of correspondence. See Table 3-6 for comments and Hydro One responses.

Ministry of Environmental, Conservation and Parks (MECP)

On August 29, 2019, Hydro One received comments on the draft ESR from the MECP. Below is a summary of topics discussed in the comments:

- Groundwater-related matters
- Surface water-related matters
- Spills prevention and response
- Species at risk
- Compliance-related matters
- EA process-related matters

On September 13, 2019, Hydro One provided the responses to MECP's review comments and incorporated the revisions to the final ESR, as required. Section 3.4.3 has been updated and includes a summary of correspondence. See Table 3-6 for comments and Hydro One responses.

Ministry of Culture, Tourism and Sport (MTCS)

On August 29, 2019, Hydro One received comments on the draft ESR from the MTCS during the review period. The first comment pertained to Built Heritage and Cultural Heritage Landscapes, with them acknowledging that Section 4.3, containing the MTCS checklist, was completed and that no known or potential built heritage resources of cultural heritage landscapes were present within the study area. The second comment pertained to Archaeology, with them acknowledging that Stage 1 and Stage 2 archaeological assessments (AAs) were completed; that both AAs have been entered into the public registrar and that no

further archaeological work was recommended. The MTCS also noted that as this project moves forward the general mitigation measures outlined in Section 7.3 and Table 7.1 of the ESR should continue to be followed.

On the same day, Hydro One responded to MTCS's and thanked them for their review comments and incorporated the revisions to the final ESR, as required. Section 3.4.6 has been updated and includes a summary of correspondence.

Table 3-6 summarizes the key comments raised throughout the draft ESR review period, and responses from the project team. Additional details can be found in Appendix D-3 (correspondence with specific stakeholder). Refer to Appendix D-7 for the complete record of questions and comments received and formal responses from Hydro One.

Table 3-6: Summary of Questions and Comments Received During the Draft Environmental Study Report Review Period

	Comment	**Response**
Michipicoten First Nation		
3.3 Amphibians (p.6)	Amphibian studies from 2019 were satisfactory for species that breed during May and June within the shoreline area but were deficient for species that breed from March until early May in woodlands. That is, the 2019 and 2017 surveys were too late to detect Wood Frog, and so the importance of the woodlands for Wood Frog reproduction was not suitably evaluated in either study.	ELM is correct in that 2017 and 2019 surveys were too late in the year to document calling Wood Frogs, but as noted in Table 1 (p. 10) of the 2017 field survey report, no vernal pools (or any other standing water) were identified on the Wawa TS expansion area. Wood Frogs breed in vernal pools and other fishless waterbodies, so there is no suitable breeding habitat for this species on the TS expansion area.
3.4 Monarch (p.7)	It appears the Monarch habitat has been adequately represented in the 2019 study. With this basis, the proposed management of Monarch, described during past teleconferences with Northern Bioscience but not included within the 2019 study is likely reasonable. For example, the past teleconferences revealed Staff from Northern Bioscience had discussed management of Monarch extensively with Staff from Ontario's Ministry of Natural Resources and Forestry (MNRF) and developed a plan. However, full details of the proposed Monarch management plan have not been shared to date with MFN to date.	Northern Bioscience has developed a milkweed mitigation protocol. This protocol was verbally discussed during The Hydro One/MFN August 21, 2019 conference call. Hydro One has since shared the written protocol with MFN on September 4, 2019 and has scheduled the mitigation work to be undertaken by MFN in mid- to late-September 2019. Milkweed habitat outside of the expansion area of Wawa TS will be enhanced in two ways: (1) viable pods will be taken and spread around the suitable adjacent habitat and (2) mature ("rescue") plants will be transplanted. This work is to be done on Hydro One property.
4.0 Discussion (p.8)	Based on the 2019 and 2017 surveys, a number of significant wildlife habitats were determined to be absent from the Site, as a result of not reaching the threshold to qualify for significance. It is vital to still document the presence of these habitats regardless of size, as it is likely that species still exist near the Wawa TS. Natural features that were documented as absent in the 2019 study included	Northern Bioscience's reports do not imply that the proposed expansion area has no wildlife habitat values; on the contrary, the reports document the wildlife species that were observed on or near the proposed expansion area. As discussed, the expansion area does provide some habitat value (e.g., songbirds) but they generally do not meet the

	Comment	**Response**
	Waterfowl Nesting Area, Waterfowl Stopover Areas, Bat Hibernacula, Bat Migratory Stopover Areas, and Wildlife Corridors. These generalizations imply that the woodland of interest provides very little habitat for varied wildlife. It is not appropriate to provide such general statements, as the nature of the studies completed did not extensively survey the entire area, and ecological overlap exists in habitat use by wildlife, especially species that migrate on a seasonal basis such as waterfowl and raptors.	threshold of provincial significance as determined by OMNRF's criteria. The absence of significant wildlife habitat (SWH) on the expansion area does not imply that SWH could not exist in the surrounding area. As acknowledged by ELM, the methods and degree of survey effort was appropriate for the 0.6-ha site. Additional surveys to assess the potential for SWH in areas outside the proposed station expansion (i.e., surrounding landscape) were beyond the scope of this EA.
4.0 Discussion "Traditional use of Plants, Wildlife and Water by MFN" (p.8)	Members of MFN historically and currently use plants, wildlife, and Anjigami Lake for varied uses. Such use includes collection of medicinal and herbal plants, hunting of wildlife such as mammals and waterfowl, fishing, and other uses of resources from Anjigami Lake.	Noted, however this is outside the scope of the Northern Bioscience field report. Hydro One is awaiting receipt of a copy of the Traditional Knowledge report being commissioned by MFN in conjunction with the proposed project. Once the report is received and reviewed, Hydro One will consult with MFN to ensure that adverse impacts on traditional uses are avoided or mitigated.
3.4 Monarch	Standard practices and timing windows for tree removal should be followed. Such practices require the trees to be removed at times of the year that will not interfere with the breeding activities of migratory birds. Convention states that woody stems should be removed before April 1 or after August 31 in any given year, as a conservative way to avoid disturbance of nesting activity of migratory birds (e.g., MNRF, 2015).	Tree removal is planned for October 2019. This timing will not interfere with the breeding activities of migratory birds (likely between April 1 and August 31 in any given year).
5.0 Environmental Recommendations (p.9)	This timing window is also appropriate to ensure the avoidance of the majority of breeding amphibian species and monarch butterflies. The amphibian breeding season general begins in during early spring, with some species breeding immediately following snowmelt. Therefore,	Site disturbance is scheduled to occur in the fall of 2019. This timing window is also appropriate to ensure the avoidance of the majority of breeding amphibian species and monarch butterflies.

	Comment	Response
	completing Site disturbance outside of April 1 to August 31 should result in the successful avoidance of breeding amphibians.	
5.0 Environmental Recommendations (p.10)	Standard BMPs for construction activities should be used to mitigate other types of disturbance on the environment prior to and during the expansion of the transformer station.	Best Management Practices (BMP) will be applied during construction as per the project-specific Environmental Specification document.
Ministry of Environment, Conservation and Parks		
Groundwater	The following additional details should be covered in the final ESR: Groundwater from the monitoring wells at the site should be sampled and analyzed to characterize the groundwater quality below the site prior to construction dewatering. Such information will be useful to determine pumped water storage requirements and appropriate disposal options to avoid delays during the construction.	Noted. The three temporary monitoring wells that were installed on the Hydro One property have been abandoned and no longer can be used for sampling. The depth of excavation is not expected to be close to the groundwater table as identified in the geotechnical assessment completed, therefore no significant dewatering is expected. In the event that groundwater is encountered during excavation, the collected water will be contained and tested, if required, prior to disposal (as noted in Section 7.6.4 of the ESR, "Excavation and Grading Activities").
	The following additional details should be covered in the final ESR: It is recommended that water intercepted from the foundation dewatering and potential contaminated soils are disposed of appropriately. Construction management plan covering	Noted. The project-specific Environmental Specification document will include construction management plans with regards to handling potential contaminated soils, excess soil and dewatering water from the foundation excavation.

	Comment	Response
	potential contaminated soils, excess soil and dewatering water from the foundation excavation should be prepared.	As part of the geotechnical assessment, three soil samples were submitted for analysis for metals and inorganics and all results met the MECP Table 8 Site Condition Standards. No excess soil is planned to leave the Hydro One property. See response to comment above with respect to dewatering water. Section 7.6.4 of the ESR, "Excavation and Grading Activities", discusses the mitigation measures to minimize the potential adverse effects of excavation and grading activities on groundwater.
	The following additional details should be covered in the final ESR: A spill prevention plan should be prepared ensuring that all fuel storage tanks have secondary containment with adequate capacity to contain any spills, trucks and stationary vehicles have drip trays, spill kits available in all fueling areas and drainage from fueling areas should be drained to sumps with no discharge to the environment.	Noted. A spill prevention plan will be included in the project-specific Environmental Specification document. Section 7.6.1 of the ESR, "Spills", discusses mitigation measures to reduce the risk of spills and to minimize the effect in the unlikely event of a spill.
Surface water	The proposed mitigation measures included in the draft ESR appear adequate to minimize impacts to adjacent surface water resources from the proposed undertaking. Future applications for any MECP permits or approvals should include the various mitigation plans described in the draft ESR, as applicable; applications should also include proposed monitoring programs to monitor potential effects in adjacent water bodies.	Noted. No MECP permits regarding dewatering /surface water discharge are anticipated for this work. In the event that they are required, applications will include the various mitigation plans described in the ESR, as applicable; further, applications will include proposed monitoring programs to monitor potential effects in adjacent water bodies.

	Comment	**Response**
Species at Risk	MECP Management Biologists concur with the findings of the report. Although not protected by legislation, there is an opportunity to create and manage (no pesticide use) Monarch habitat outside of the proposed expansion area. This could be accommodated by moving or planting Milkweed in areas that will remain free from disturbance.	Noted. Hydro One plans to create and manage Monarch habitat outside the proposed expansion area, on Hydro One property. This will be accommodated by collecting mature milkweed seed pods and distributing them in suitable alternate habitat. Mature plants will also be transplanted to suitable adjacent habitat, where possible.
Compliance	This project will require permitting and approvals for certain activities. A Permit To Take Water (PTTW) under Section 47.1 of the Ontario Water Resources Act (OWRA) may be required should dewatering and the taking of water for construction activities in excess of 50, 000 litres per day. Some construction activities may fall under the EASR (Environmental Activity and Sector Registry) permitting.	Noted. Hydro One will obtain the necessary permits and approvals, as required.
	This project will require permitting and approvals for certain activities. The operation of a batch concrete plant may also require a PTTW (in addition to other permitting (Air and Industrial Sewage).	This comment is not relevant to this project; there will be no batch concrete plant as part of the Wawa TS Expansion project.
	This project will require permitting and approvals for certain activities. Any PTTW dewatering activities requiring treatment of discharged construction water will require an Environmental	Noted. Hydro One will obtain the necessary ECA, as required.

	Comment	Response
	Compliance Approval (ECA) for industrial sewage works under Section 53 of the OWRA.	
	This project will require permitting and approvals for certain activities. There is an existing Environmental Compliance Approval (No. 9920-8RAMCX issued on April 10, 2012) for the establishment of sewage works for the collection, transmission. Treatment and disposal of storm water from the transformer spill containment area at the Anjigami Transmission Station (TS1) located adjacent to the Wawa Transmission Station. An amendment to this ECA would be required in order to incorporate the changes proposed in the Wawa Transmission Station expansion. Alternatively, the revocation of the Anjigami ECA and the submission of a new ECA application encompassing all industrial sewage works (current and new) on site could be considered.	The proposed expansion of Wawa TS does not seek to establish or alter any sewage works; it does not propose any piping or other infrastructure to collect, transmit, treat or dispose stormwater from the expansion area. As such, the expansion does not require an industrial sewage ECA. With respect to the adjacent facility, it is inappropriate to combine the Anjigami TS and Wawa TS sewage works in one approval at this time. They are separate facilities located on distinct property parcels with independent drainage.
	The management of solid non-hazardous waste should be well considered prior to the start of the project. As several of the municipal waste site locations within the project area are experiencing capacity issues, arrangements with municipalities should be conducted prior to the start of construction activities. Also, vehicles transporting solid non-hazardous waste to the municipal sites may require registration on the Environmental Activity and Sector Registry (EASR).	Noted. Hydro One will make arrangements with municipalities in advance of commencing construction activities. Hydro One will complete registration on EASR for vehicles transporting solid non-hazardous waste to the municipal sites, as required.
	If dealing with hazardous or liquid industrial wastes, registration on the Ministry's Hazardous Waste Information Network (HWIN) will be required, as will the proper storage,	Noted.

	Comment	Response
	transport and disposal of hazardous and liquid industrial waste. Furthermore, the establishment of a Spills Prevention and Contingency Plan for the project should be undertaken, as previously mentioned.	If dealing with hazardous or liquid industrial wastes, Hydro One will complete the registration on the Ministry's Hazardous Waste Information Network (HWIN), as required. As noted in Section 7.6.1 of the ESR, "Spills", Hydro One will prepare an Emergency Response Plan as part of the project which will include a Spills Prevention and Contingency Plan.
EA Process	In an email dated June 24, 2019 from Hydro One Network Inc., it was noted six individuals attended the June 12, 2019 CIC with general questions regarding the project and that a summary of the CIC would be provided in the draft ESR. While there is an Appendix D-4 that includes CIC information within, D-4 only provides the display panels, sign-in sheet and comment form. This reviewer cannot seem to locate the summary of that day in the draft ESR. MECP would like to see this summary attached in Appendix D-4.	A summary of the comments received at the June 12, 2019 CIC is provided in Section 3.6.2 of the ESR, "Community Information Centre", and in Section 3.7.5 "Public Comments and Concerns". Appendix D-4 includes a copy of the materials provided at the CIC.
	In addition, there was no conclusion of the communication with BFN. Please include details of this in the consultation log.	The consultation activities undertaken with BFN throughout the Class EA process are summarized in Section 3.2.2 of the ESR.

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4 Environmental Inventory

Information concerning the following environmental factors was collected within the Project study area:

- Agricultural resources;
- Forestry resources;
- Cultural heritage resources (i.e., built heritage resources, cultural heritage landscapes and archeological resources);
- Human settlements;
- Mineral resources;
- Natural environment resources (e.g., air, land, water, wildlife and wildlife habitat);
- Recreational resources; and,
- Visual and aesthetic resources.

Environmental and socio-economic baseline conditions of the study area are described in the following sections. **Figure 4-1** illustrates the study area for the Project, including a 500 m buffer surrounding the Wawa TS. Field surveys were undertaken in June 2017 and May/June 2019 to assess baseline environmental conditions and significant natural values to inform the proposed expansion and class EA. Additional information beyond the study area is provided for some environmental features (such as the socio-economic environment) where additional context is deemed appropriate.

Sources of information include published documents, government agency and online resource databases and mapping tools, municipal websites, government planning and guidance documents, relevant project documents (e.g., Nextbridge's EWT Transmission Line EA), reports commissioned by Hydro One, and primary data collection through targeted natural heritage field surveys.

Northern Bioscience conducted field surveys within the study area between June 27 and 28, 2017. Additional surveys were conducted between May 20 and June 27, 2019 to supplement the data collected in 2017. The 2019 field survey results are summarized in **Section 4.6.6** below. The field survey reports are provided in **Appendix A-2** and **Appendix E-1**.

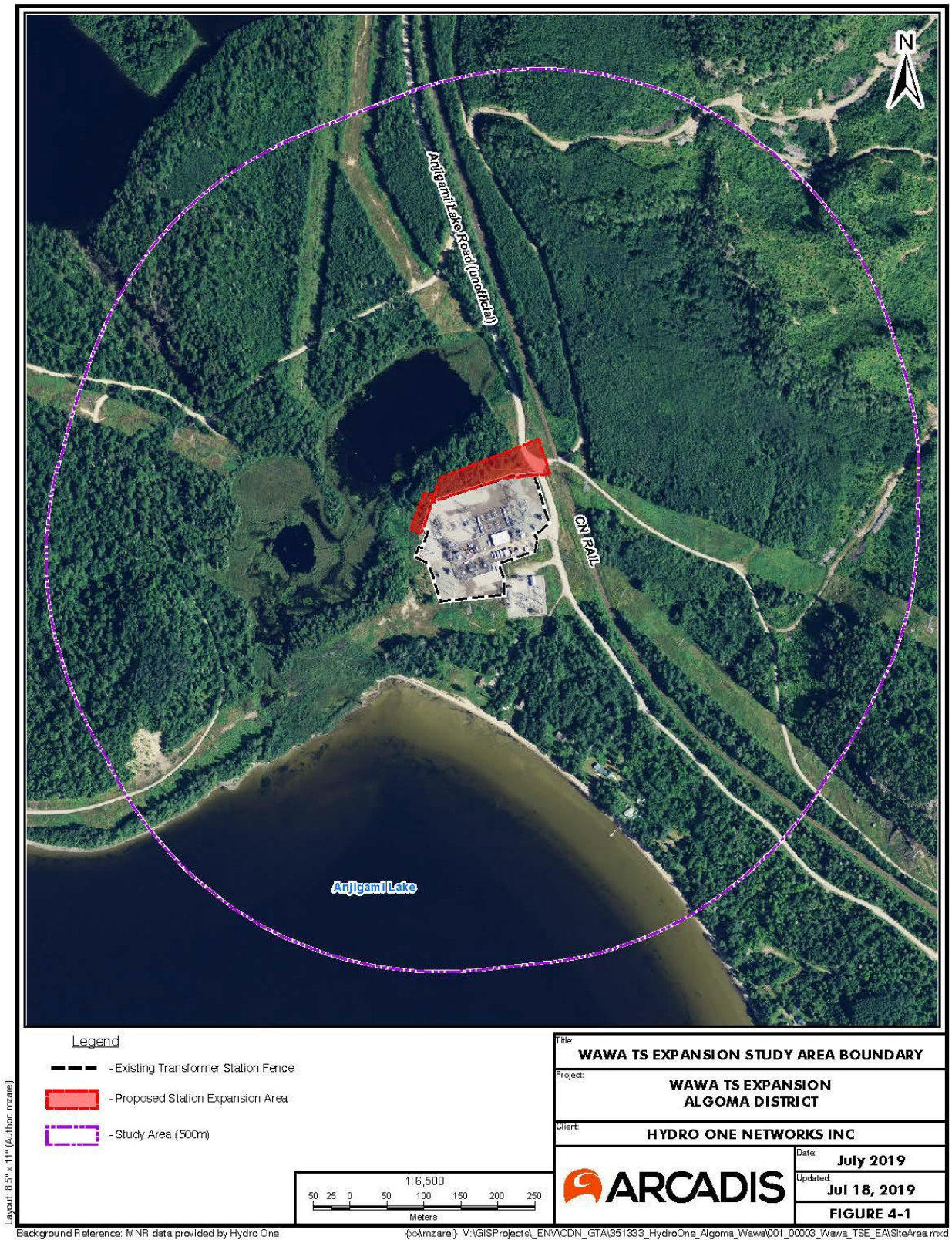

Figure 4-1: Study Area Boundary

4.1 Agricultural Resources

Information on mapped agricultural resources was unavailable from the Canada Land Inventory (Agriculture and Agri-Food Canada, 2013) and Ontario Agriculture Land Atlas (OMAFRA, 2019). The boundaries of the study area exist beyond the limits of the inventory of agricultural mapping. Field surveys undertaken in 2017 and 2019 to collect information on vegetation and a review of satellite imagery identified the study area as predominately forested. Remaining areas included cleared areas along the southern margin adjacent to the TS and the eastern portion along the access road. As such there was no presence of existing agricultural uses. Agricultural resources are not considered further within this report as none were identified within the study area.

4.2 Forestry Resources

Forest 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 decision of landowners.

The Wawa TS falls within the Algoma Forest - Forest Management Unit (FMU) (#615) (MNRF, 2019c). Regionally, the Algoma Forest is administered by the MNRF office in Timmins. The forest falls within two MNRF district boundaries (Sault Ste. Marie and Wawa). As such, Sault Ste. Marie District leads the forest administration and is supported by Wawa District. Clergue Forest Management Inc. (CFMI), based out of Sault Ste. Marie, is responsible for the overall administration and planning of the Algoma Forest under the authority of Sustainable Forest Licence #542257, although MNRF maintains some responsibilities with respect to planning, monitoring, etc. CFMI is responsible for preparation of forest management plans (FMP), annual work schedules and annual reports, implementation and monitoring of harvesting and renewal operations, and compliance monitoring and compliance. The MNRF works jointly with CFMI to produce FMPs, approve FMPs and schedules, undertakes inspections, manages information and resources associated with non-timber values such as wildlife and land use, and undertakes independent company conformance audits (CFMI, 2009).

The FMP for the Algoma Forest was prepared by CFMI for the 10-year period from 2010 to 2020. The plan identifies more than half of the Algoma FMU as comprised of managed Crown land and parks and conservation reserves. In addition, large areas are comprised of privately owned (patent) lands (36%) (CFMI, 2009) which the FMP has no direction over. The Wawa TS study area and surrounding area fall within patent land area (CFMI and OMNR, 2009). Existing lands for the Wawa TS are owned by Hydro One. None of the Hydro One's lands are currently being used for forestry practices. Preparation of the 2020-2030 Algoma FMP is currently underway (CFMI, 2019).

The FMP identifies various non-timber uses/values of the forest such as: Bear Management Area, Wintering Areas and Calving/Fawning Sites for caribou, deer and moose; Deer and Waterfowl Staging Areas; and other wildlife and forestry data. Resource users of two Bear Mangement Areas (WA-34-008 and WA-35-002), one Baitfish Area (WA0121) and one Trapline Area (WA085) are located approximately 1.5 km from the proposed TS expansion area and beyond the study area (MNRF, 2019d). The lands within and immediately surrounding the Wawa TS are patented, with limited to no use information available.

4.3 Cultural Heritage Resources

The Ministry of Tourism, Culture and Sport's (MTCS) Standards and Guidelines for Conservation of Provincial Heritage Properties (2010) identify provincial heritage properties as including three (3) types of cultural heritage resources: built heritage resources, cultural heritage landscapes and archaeological sites (MTCS, 2010). The Standards and Guidelines are applicable to properties that owned or controlled by the Ontario Government which have cultural heritage value or interest.

Hydro One completed and submitted to MTCS the checklist for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes at the request of the MTCS (**Appendix E-2**). Based on the results of NextBridge's Stage 1 Archaeological Assessment for the EWT Transmission Line that identified the Wawa TS area as having archaeological potential, Hydro One retained Central Archaeology to conduct a Stage 2 Archaeological Assessment in 2018. A monitor from MFN was present during the field work.

The Stage 2 Archaeological Assessment recommended that the project area be cleared of archaeological concerns as there was no recovery of any material during survey activities and significant pre-contact and historic first Nations or historic Euro-Canadian archaeological sites are unlikely to be found within the project area. The assessment also noted that the MTCS will be immediately notified in the event that archaeological remains are found during project construction and development activities.

In response to the Stage 2 Archaeological Assessment that was submitted to MTCS, the ministry noted that it had reviewed the original assessment report (PIF P248-0299-2017) and that it had been deemed compliant with the requirements of the MTCS for archaeological field work and reporting and the assessment was entered into the Ontario Public Register of Archaeological Reports (**Appendix E-3**).

MFN is preparing a Traditional Knowledge report for this current project.

4.4 Land Use and Communities

The study area is located in Algoma District which includes an area roughly bounded by Lake Superior and Lake Huron to the south and then extending further into northern Ontario. Algoma District has a total population of 114,094 and a land base of approximately 48,815 square kilometres (km^2) (Statistics Canada, 2016).

The Wawa TS is situated approximately 20 km southeast of the Municipality of Wawa, one of several municipalities within Algoma District and near the northeast shore of Lake Superior (**Figure 4-2**). The Municipality of Wawa, formerly the Township of Michipicoten, sits at the junction of Highways 101 and 17 and is approximately 265 km north of Sault Ste. Marie. Wawa has a population of 2,905 people, and a land base of 416 km^2 (Statistics Canada, 2016).

Approximately five cottages/residences are identified within the study area, to the south and southeast of the TS on Anjigami Lake. These follow the shoreline and it is not clear as to whether these are used seasonally or year-round. Additional cottages/residences occupy the shoreline beyond the study area to either side of the lake.

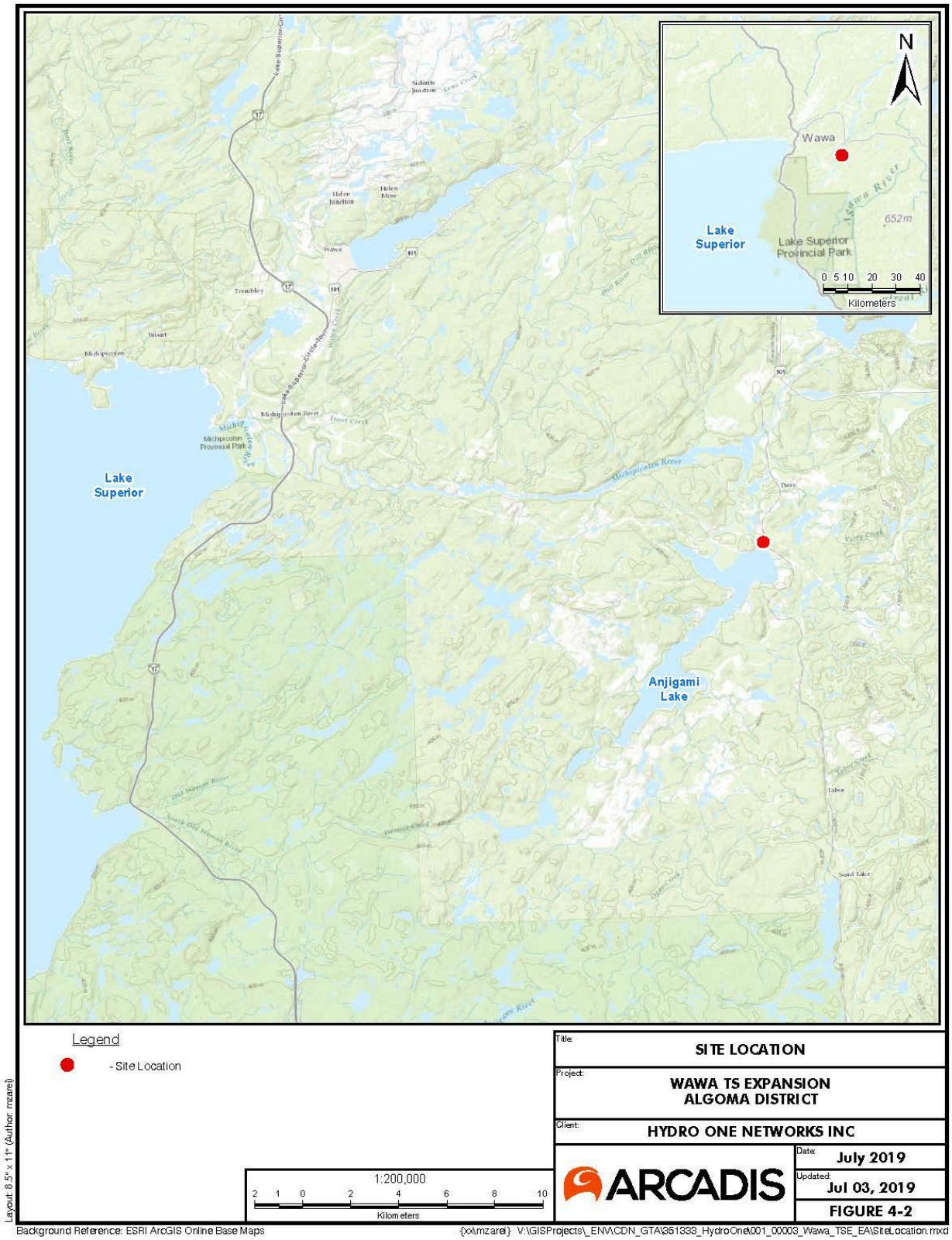

Figure 4-2: Site Location

4.4.1 *Land Use Planning*

The study area falls outside the Municipality of Wawa Official Plan (OP) designated planning area. As such planning tools and land use information as is found in the Municipality's OP does not apply to the study area. Rather the PPS (PPS, 2014), issued pursuant to the *Planning Act*, and the Growth plan for Northern Ontario (2011), pursuant to the *Places to Grow Act*, guide land use within the study area.

The Government of Ontario's policy direction on land use planning and development is guided by the PPS (2014) which sets the policy foundation for regulating land use and development. Fundamental to this foundation is the promotion of strong communities, a strong economy, and a clean and healthy environment which includes the protection of resources, efficient land and infrastructure management, and appropriate land use development. The PPS (2014) identifies energy supply as one of its mandates:

> "Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, to accommodate current and projected needs."

The Growth Plan for Northern Ontario (2011) provides a strategic framework to guide investment planning and decision making in Northern Ontario through policies that promote environmental stewardship, strong and sustainable communities, a high quality of life, and economic prosperity. In terms of its frawework with respect to infrastructure, the Plan supports energy investment and states:

> "Energy generation and transmission infrastructure in Northern Ontario supports all sectors of the northern economy, particularly large energy users in the manufacturing and resource sectors."
>
> "Investment in Northern Ontario's energy generation and transmission infrastructure supports the growth and development of the energy sector and also provides secure and reliable energy supply for all sectors of the northern economy."

Apart from the Wawa TS, land use within the study area generally includes cottages/residences to the south on Anjigami Lake, Anjigami Lake Road (unofficial) and smaller access roads, and transmission lines entering and exiting the TS. Based on aerial imagery, the Algoma Forest FMP Values mapping (CFMI and OMNR, 2009), and site visits in 2017 and 2019 to conduct environmental field surveys for the proposed Project, there is no indication of institutional, commercial or industrial land use identified within or immediately surrounding the study area.

4.4.2 *Transportation*

The Wawa TS is accessible via an unofficially named road, Anjigami Lake Road. This road travels immediately adjacent the TS and proposed expansion area (on the east side of the property) as it passes through the study area and is also used to access nearby cottages/residences. Anjigami Lake Road is an unmaintained privately-owned road that is accessible from King's Highway 101. Highway 101 is a major east-west collector highway in northern Ontario and connects to the Trans-Canada Highway/Highway 17, a major provincial highway. Highway 17 provides a connection to Thunder Bay to the east and Sault Ste. Marie to the south).

The nearest major registered airport is the Wawa Municipal Airport situated in Wawa near the junction where Highways 17 and 101 meet. It is approximately 20 km west (direct line) of the proposed Project.

A railway is situated within the study area, immediately adjacent and to the east of the TS. The Algoma Central Railway is classified as a Canadian National Railway Company (CN) Rail class 1 freight carrier that travels in a north-south direction between Hearst and Sault Ste. Marie in Ontario and also cross border to the U.S. from Sault Ste. Marie (Railway Association of Canada, 2012; CN, 2019).

4.4.3 *First Nations Lands and Territory*

There are no First Nation reserve lands situated within or immediately adjacent the existing Wawa TS. A search of nearby communities identifies Gros Cap 49 First Nation Reserve (No. 06157) and Gros Cap Indian Village 49A (No.06158) as the nearest (approximately 25 km distance). (AANDC, 2012. Gros Cap 49 (No.06157) (3514.7 ha) and Gros Cap Indian Village 49A (No.06158) (5.5 ha) are two of four reserves associated with the MFN and are both

situated on the north shore of Michipicoten Bay in Lake Superior. Two additional reserve lands associated with this community include Chapleau 61 (No.06164) (89 ha) approximately 86 km to the east of the TS, and Missanabie 62 (No.06155) (87.4 ha) approximately 56 km to the northeast of the TS (INAC, 2012). The total registered population of MFN is 1,171 (as of May 2019). The proportion of community members residing on Gros Cap 49 and Gros Cap Indian Village 49A was not available, however, over ninety per cent of the registered population reside off reserve lands (1,103) (as of May 2019). (INAC, 2019).

Section 3.2 provides additional information regarding FN&M consultation as part of the EA process.

4.5 Mineral Resources

There are no aggregate resource areas (e.g., pits) identified within the study area (MNRF, 2019e; Natural Resources Canada, 2019. There are four pits identified to the north and northeast of the Wawa TS (**Figure 4-3**). All are to the south of Highway 101 and beyond 5 km from the TS. Based on MNRF online mapping of the sites, none would appear to rely on Anjigami Lake Road (unofficial) for access from the highway as alternate roads that provide more direct routes are present. Three of the sites are privately operated pits with Aggregate Permits and occupy licensed areas of 35.2 ha (Great Lakes Power Ltd.), 21.1 ha (J. Provost Contracting Ltd.), and 4 ha (Rentech RTK WP ULC Canada) respectively. Each has limitations on its annual extraction. The fourth site is a Ministry of Transportation (MTO) pit which occupies a licensed area of 10.2 ha. The site has unlimited annual extraction (MNRF, 2019e).

Based on ENDM online mapping, there are no active mine claims identified within the study area or immediately surrounding area (MENDM, 2019). Mineral occurrences are identified well beyond the study area (over 5 km).

4.6 Natural Environment Resources

Environmental sensitivity including air, land, water, wildlife and wildlife habitat resources and features are factors considered within the study area.

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

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

4.6.1 *Physical Environment*

The TS and surrounding region are located within the Wawa subprovince of the Canadian Shield. This includes the Michipicoten greenstone belt which largely consists of supracrustal rocks of Archean age. Also present and surrounding the belt is younger Archean-aged granite. Within the belt, four major sedimentary and metavolcanic rock types are recognized and include: intermediate to mafic metavolcanic rocks; intermediate to felsic metavolcanic rocks; clastic metasedimentary rocks; and chemical metasedimentary rocks. The belt covers an area extending from the Lake Superior shore extending inland and northeast for 150 km and with an average width of 38 km. (OGS, 2001).

The ENDM online Mining Lands Administration System (2019) also identifies the bedrock geology of the study area as being characterized as massive to foliated granodiorite to granite (MENDM, 2019) (**Figure 4-4**). This geological formation is generally representative of bedrock through the study area.

Quaternary geology at the TS is identified as undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift. Surrounding geology includes glaciofluvial outwash deposits of gravel and sand including proglacial river and deltaic deposits (MENDM, 2019) (**Figure 4-5**).

The Wawa area overall quaternary geology is described as relatively uncomplicated with all deposits comprising Late Wisconsinan and Recent age. Till that drapes the bedrock surface in several areas has a sand-rich matrix derived from ice sheet deposit lowing southwest during the last glacial advance and is the oldest material encountered.

Topography of Wawa and the surrounding area in general is described as moderate to undulating and moderate to severely rugged with local relief ranges up to 230 m (OGS, 2001).

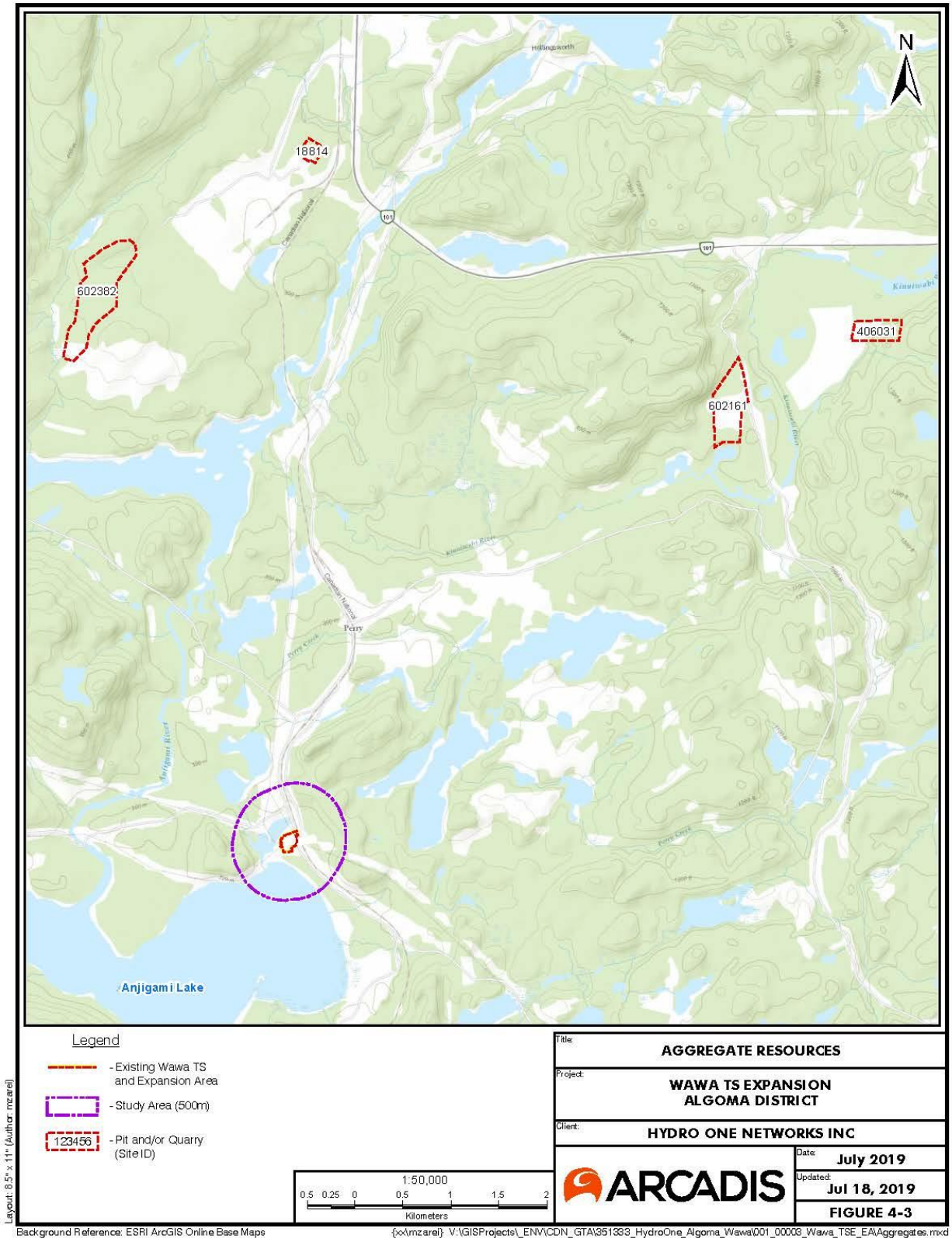

Figure 4-3: Aggregate Resources

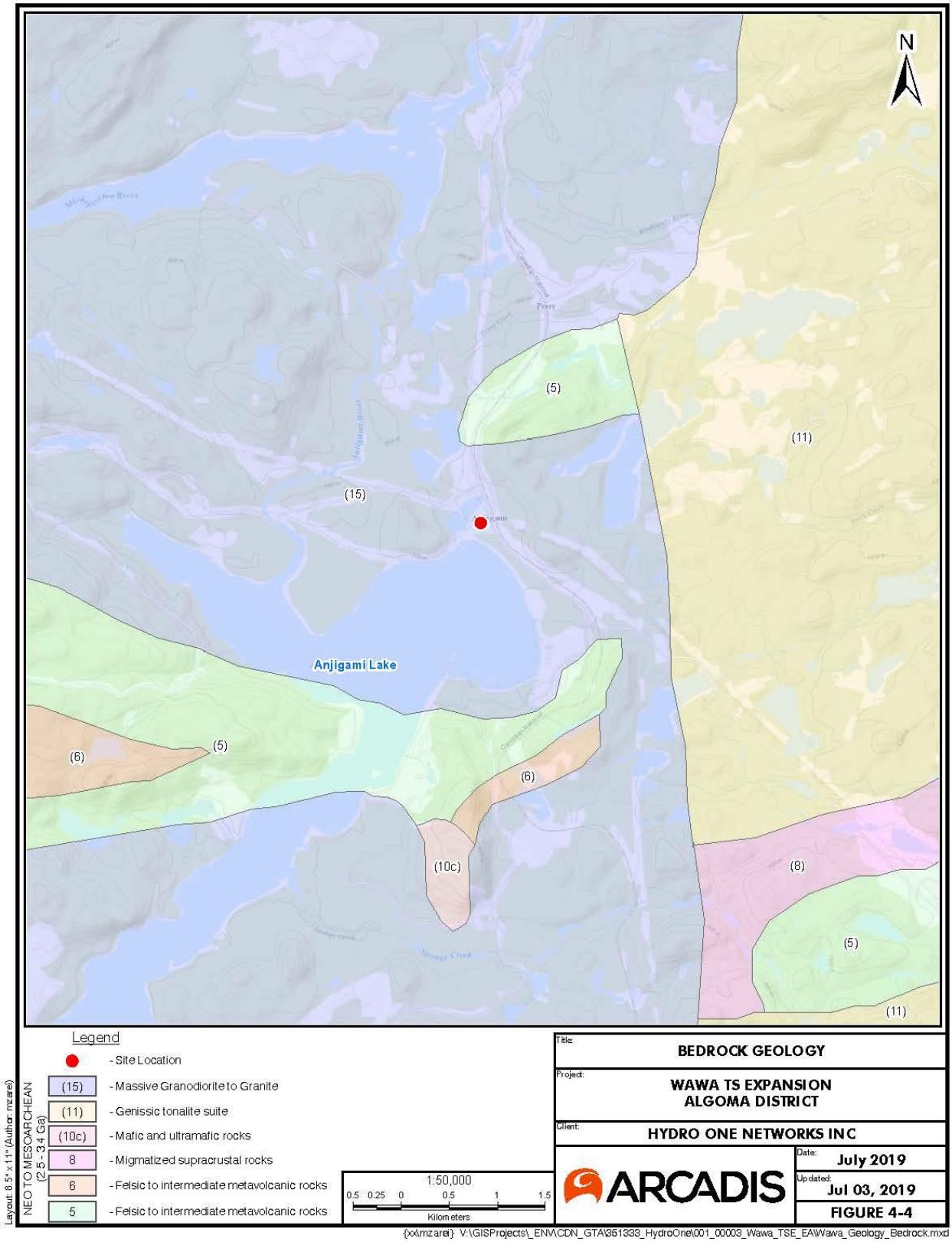

Figure 4-4: Bedrock Geology

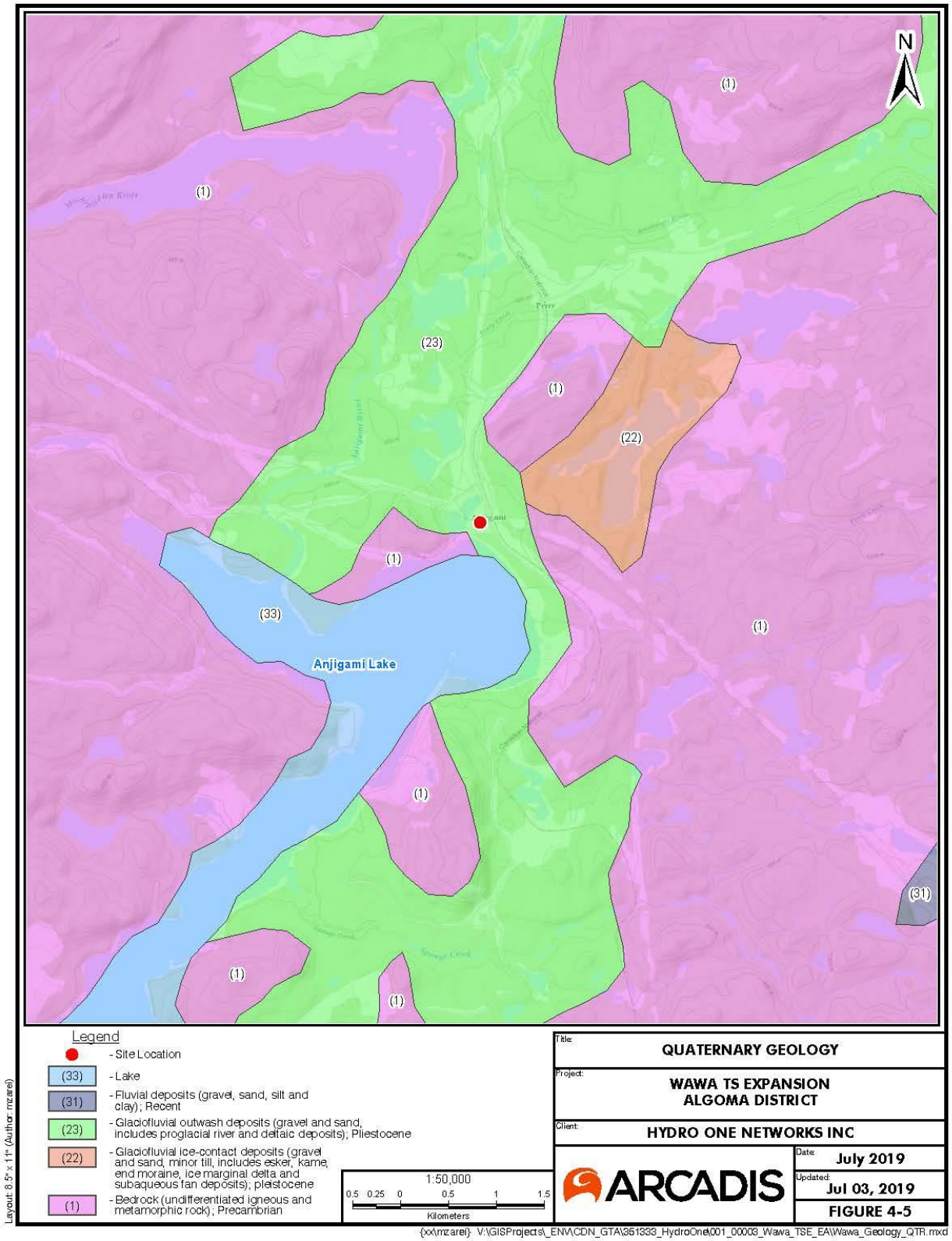

Figure 4-5: Quaternary Geology

4.6.2 *Atmospheric Environment*

Climate

The average climatic conditions for a particular location can be described based on the ECCC Climate Normals and Averages, which are updated at the end of each decade, where possible. Climate normal data from 1981 to 2010, the most recent available from ECCC, was used to describe climate conditions of the study area and surrounding region. The nearest climate station is Wawa climate station (ID 6059D09) and meets World Meteorological Organization (WMO) standards for temperature and precipitation (Government of Canada, 2019a). The Wawa station is situated at the Wawa airport to the west of the study area. Based on climate normal data, climate conditions in this area can be deemed to be reasonably consistent, as presented in **Table 4-1**.

Table 4-1: Summary of Published Annual Climate Normals for the 1981 to 2010 Period for Wawa A Station No. Table 6059D09

Source: Government of Canada, 2019

Parameter	Wawa A (6059D09)
Daily average (°C)	2.1
Daily maximum (°C)	7.8
Daily minimum (°C)	-3.6
Rainfall (mm)	707.8
Snowfall (cm)	319.4
Precipitation (mm)	969.7
Days with maximum temperature >35 °C	0
Days with minimum temperature <-30 °C	10.4
Days with rainfall ≥ 25 mm	5.4
Days with snowfall ≥ 25 mm	0.43
Days with precipitation ≥ 25 mm	5.9

The Wawa Meteorological Station provides a mean annual temperature of 2.1 °C. Monthly precipitation is shown to vary between 2.3 millimetres (mm) in January and 121.8 mm in September. Total annual precipitation is approximately 969.7 mm. Falling rain accounts for 707.8 mm of annual precipitation while 319.4 centimetres (cm) falls as snow (**Appendix E-4**) (Government of Canada, 2019).

The average length of the frost-free period is 105 days with mid-September to early-June typically accounting for frozen ground conditions. Winds are primarily from a southwesterly direction, and average annual wind speeds are 9.5 kilometres per hour (km/h) (see **Appendix E-4**).

Air Quality

A network of air quality monitoring stations which are operated by the MECP and ECCC National Air Pollution Surveillance (NAPS) program are used to monitor regional air quality in Ontario. The nearest station to the study area is in Sault Ste. Marie (MECP, 2019). As such, information on air quality is unavailable for the study area and cannot be accurately reported.

Noise and Vibration

Noise in the study area is typical of a rural remote community and the sounds in the area is typical of natural sounds of nature such as insects and rustling leaves and other wildlife/environmental sounds. There is no major settlement to generate noise. The only existing stationary noise source is the Wawa TS.

Constructions activities can produce noise and vibration. During the construction phase of the proposed Project, some activities, such as soil compaction, excavation and heavy equipment use may result in in localized vibration. There are no heritage structures and/or vibration-sensitive facilities that have been identified within the study area.

4.6.3 *Surface Water Resources*

The TS is situated to the south of the Great Lakes-Hudson Bay regional drainage divide. The overall flow of water is south to the Lake Superior basin. Key drainage basins within the study area include: the Doré, Magpie and Michipicoten rivers with the latter accounting for the largest river (OGS, 2001).

Surface water resources that are identified within the study area include a pond and Lake Anjigami. The pond is situated immediately north of the proposed TS expansion area and is approximately 3 ha in size. The northernmost portion of Lake Anjigami is present within the southern boundary of the study area, to the south of the TS. Environmental field surveys undertaken in 2017 and 2019 identified the pond as providing wildlife habitat.

The pond to the north of the TS could be used by some fish species such as Northern Pike (*Esox lucius*), sticklebacks, cyprinids). However, it is expected that the sheltered, organic substrate of the pond makes it unsuitable spawning habitat for Lake Trout or Walleye. While the pond is outside the proposed TS expansion area, it is however considered fish habitat and is protected under the federal *Fisheries Act*.

No turtles were observed during the June 2017 and May-June 2019 field surveys conducted by Northern Bioscience. The southern shoreline of the pond is outside the TS expansion area. This shoreline is heavily vegetated, poorly drained, and north-facing so it is not a suitable turtle nesting habitat. The pond north of the TS expansion area is potentially a suitable habitat both for foraging and possibly overwintering for Snapping Turtle and Painted Turtle. Painted Turtles overwinter in shallow water with deep sediment (COSEWIC 2018). Further detail associated with recreation and tourism of surface water features, including Lake Anjigami, is provided in **Section 4.7**.

4.6.4 *Groundwater Resources*

The Project site is located within the Northeastern Lake Superior subwatershed approximately 25 km east of Lake Superior. The geology of the watershed has been influenced by a number of glacial events. Overburden thickness varies and is thin and discontinuous, with deposits of coarse loamy till and numerous lakes (MNDNR 2016). The glacial deposits can be grouped into: 1) loamy soils with coarse fragments (gravel, cobbles, stones and boulders), 2) heavy clayey soils with few coarse fragments, and 3) shallow soils on top of bedrock (MNDNR 2016).

A geotechnical investigation performed in October and November of 2016 at the Wawa TS Expansion Site by Hemmera (2018) found that subsurface conditions at the Site location are indicative of upper fill deposit to a depth of approximately 0.2 to 2.1 metres below ground surface (mbgs), underlain by an interbedded deposit of silty fine sand, to fine sand, to fine sandy silt, to silt. Compactness varied from very loose to dense, but more typically loose to compact, which is indicative of lower permeability. Water levels detected during the geotechnical studies ranged from dry to 5.5 mbgs.

A search of water well records located within a 1 km radius was conducted to provide a preliminary hydrogeological characterization of existing site conditions and preliminary assessment of potential conditions at the site during the completion of the planned expansion.

Five (5) water well records were identified in the MECP's water well record database within a 1 km radius of the site, which were actually situated within the 500 m buffer study area. **Figure 4-6** presents the locations of the identified wells within the 500 m radius around the Site (buffer study area). **Table 4-2** below shows water well record (WRR) information for these wells.

Table 4-2: Water Well Records within 500 m Buffer Study Area

No	WELL ID	Borehole ID	ZONE	X	Y	Date Completed	Final Status
1	1101518	10073594	16	683748.9	5306227	11-Sep-68	Abandoned - Supply
2	7273196	10073847	16	683602	5306388	21-Sep-16	Abandoned - Construction Record/Monitoring

3	7273197	10074253	16	683638	5306366	21-Sep-16	Abandoned - Construction Record/Monitoring
4	7277240	10075379	16	683613	5306517	07-Nov-16	Abandoned - Construction Record/Monitoring
5	7277873	10077044	16	683643	5306362	23-Nov-16	Abandoned - Monitoring and Test Hole

Source: MECP, 2019b

Local groundwater flow is typically topographically controlled and the water table generally provides a subdued reflection of the local scale topography with flow from higher elevation to discharge areas at lower elevation bogs and wetlands or lakes and steams.

The topography of the site and its immediate surroundings slope gently and groundwater discharges toward Lake Anjigami and the Michipicoten River, on the southern edge of the site

As there are several surface water features (i.e., ponds, lakes, and rivers) surrounding the project site, this is also indicative of generally short groundwater flow paths from local topographic highs of sub-watersheds to the nearby surface water features.

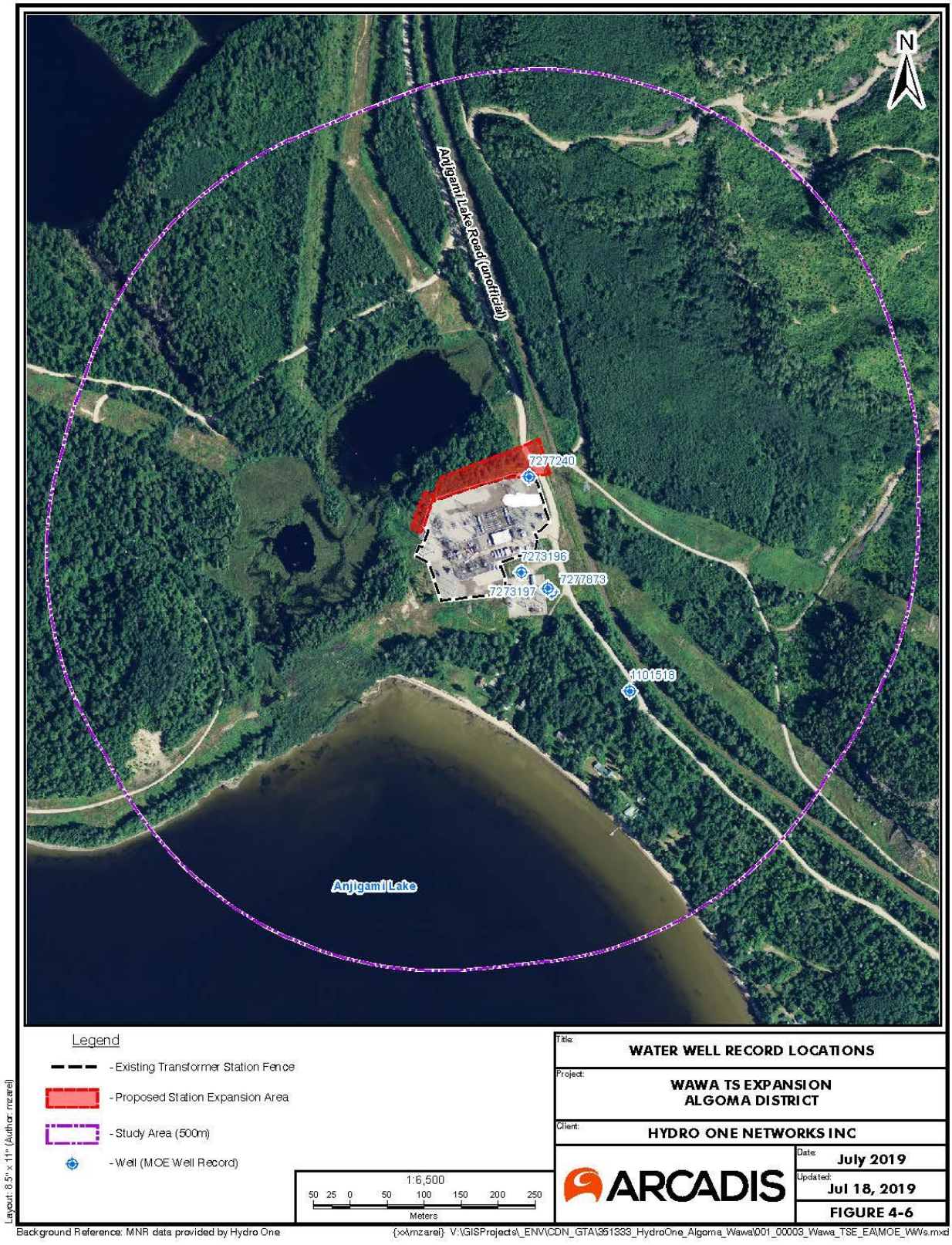

Figure 4-6: Water Well Record Locations

4.6.5 *Designated or Special Natural Areas*

Designated or special natural areas are identified by federal or provincial agencies and municipalities through legislation, policies, or approved management plans. These areas typically have special or unique values that result in conservation land initiatives. Such areas may have a variety of ecological, recreational, aesthetic and functional features that are highly valued.

There are no designated or special natural areas within 500 m of the Wawa TS expansion area and therefore are not considered further.

4.6.6 *Natural Heritage Features*

As defined in the PPS (2014), natural heritage features and areas include "significant wetlands, significant coastal wetlands, fish habitat, significant woodlands south and east of the Canadian Shield, significant valleylands south and east of the Canadian Shield, significant habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest", which are important for their environmental and social values as a legacy of the natural landscapes of an area. Furthermore, Section 2.1.8 of the PPS (2014) states that development and site alteration shall not be permitted on lands adjacent to natural heritage features "unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions".

Crown Lands were not identified within the study area. The proposed Wawa TS expansion area is situated on private land (Land Use Designation #G2694) (see **Figure 4-7**) and as such the Crown Land Use Policy does not apply in this area (MNRF, 2019a).

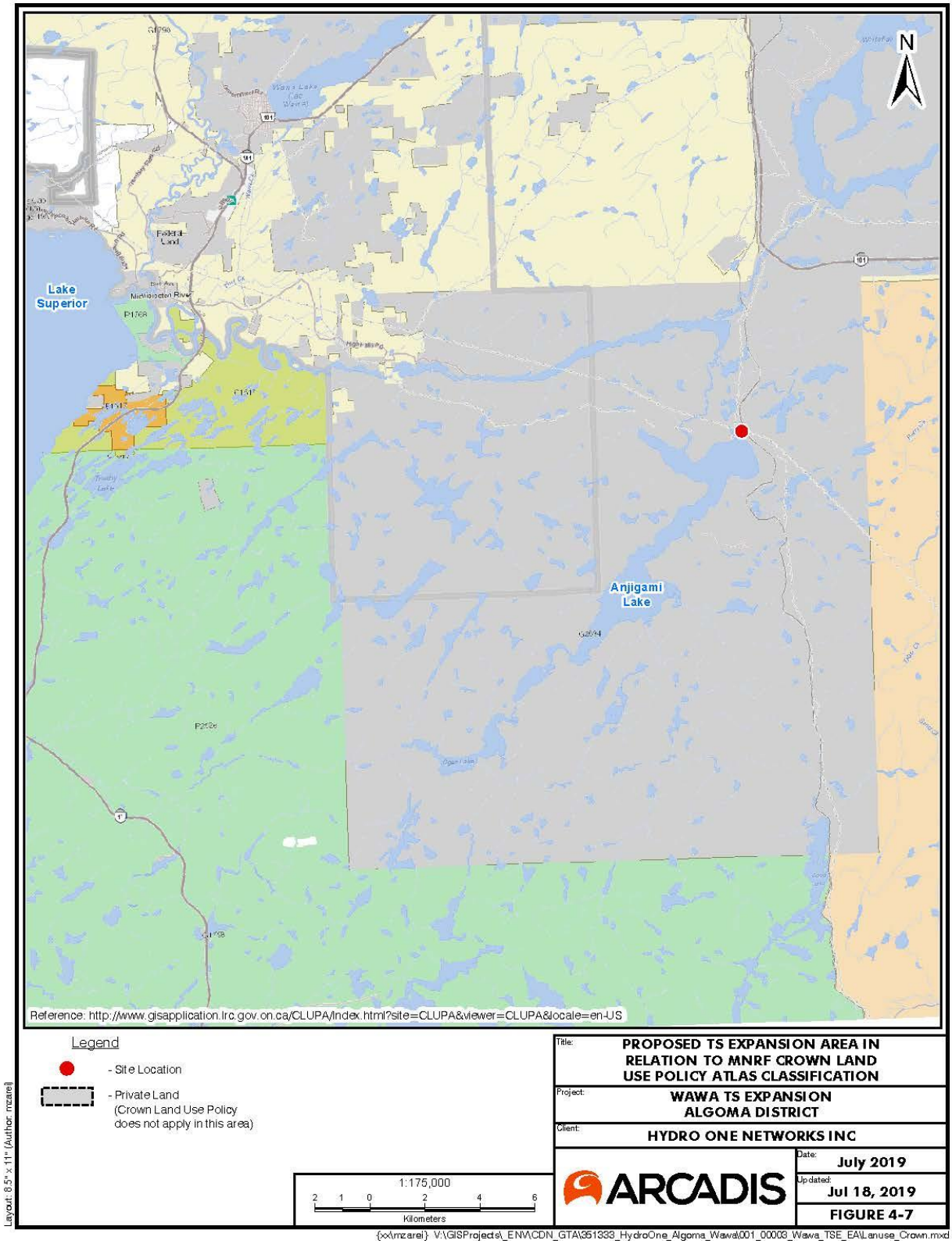

Figure 4-7: Proposed TS Expansion Area in relation to MNRF Crown Land Use Policy Atlas classification

Secondary sources and databases were reviewed to assess the potential for natural heritage features in the Wawa TS area such as Areas of Natural or Scientific Interest (ANSI), Environmentally Sensitive Areas (ESA), Provincially Significant Wetlands (PSW), Species at Risk (SAR), and Significant Wildlife Habitat (SWH). Sources reviewed as part of this initial desktop assessment included among others:

- Correspondence with the MNRF (Wawa District);
- Environment and Climate Change Canada's Species at Risk Public Registry database (ECCC, 2019)
- The MNRF Species at Risk in Ontario List (MNRF, 2019e);
- MNRF's Natural Heritage Information Centre (NHIC);
- The Ontario Reptiles and Amphibian Atlas (ORAA) (Ontario Nature, 2019);
- The Atlas of the Mammals of Ontario (AMO) (Dobbyn, 1994);
- Bat species profiles and range maps (Naughton 2012);
- The Second Atlas (2001-2005) of Breeding Birds of Ontario (ABBO) (Cadman et al. 2007);
- Topographic data extracted from Land Information Ontario (LIO); and
- MNRF's *Make a Natural Heritage Map* website (MNRF 2019b).

Northern Bioscience conducted field surveys within the Wawa TS study area between June 27 and 28, 2017. Additional surveys were conducted between May 20 and June 27, 2019. Field survey results are summarized below and copies of the field reports are provided in **Appendix A-2** and **Appendix E-1**). Surveys included morning point counts for breeding birds, crepuscular/nocturnal acoustic surveys for bats, birds, and marsh-breeding amphibians, use of acoustic recorders for bats and Eastern Whip-poor-will (*Caprimulgus vociferous*), field determination of ecosites, and visual encounter surveys for other taxa.

Wetlands

The PPS (2014) also requires that municipalities and others responsible for land use planning protect provincially significant wetlands (PSWs), including a 120 m buffer around the regulated PSW. A wetland is determined to be a PSW based on an evaluation by the MNRF using the *Ontario Wetland Evaluation System – Northern Manual* (OWES) (OMNR, 2013). The MNRF's

Make a Natural Heritage Map website (MNRF 2019b) was accessed to determine the presence of PSWs or unevaluated wetlands in the natural heritage study area. No wetland is present on the proposed Wawa TS expansion area. A 3.0 ha pond is located approximately 30-60 m to the north of the Wawa TS expansion area. The pond has productive marsh and other wetland communities and is connected downstream to another small pond and wetland complex and then to Anjigami Lake via a mapped stream that cuts through an existing transmission ROW (Foster and Harte, 2017). The pond and associated wetland has not been formally evaluated under OWES, but it is unlikely that the wetland is provincially significant due to its small size, limited wetland diversity (mainly marsh), and lack of SAR or other special features.

Fish Habitat

No fish habitat is present on the Wawa TS expansion area. However, the permanent pond approximately 30-60 m to the north of the Wawa TS expansion area is likely fish habitat. The permanent pond is connected downstream to another small pond and wetland complex and then to Anjigami Lake via a mapped stream. It likely supports forage fish, and may provide spawning habitat for northern pike. Detailed documentation of fish habitat within the study areas was not undertaken for this Class EA as preliminary scoping did not identify any adverse effect to this aquatic or associated resource features.

Woodlands

Under the PPS, significant woodlands are protected in Ecoregions 6E and 7E. The Wawa TS expansion area is in Ecoregion 3E. No significant woodlands were identified in the study area.

Valleylands

Under the PPS, significant valleylands are protected in Ecoregions 6E and 7E. The Wawa TS expansion area is in Ecoregion 3E. No significant valleylands were identified in the study area. Valleylands were not identified in the study area.

Areas of Natural and Scientific Interest

Areas of Natural and Scientific Interest (ANSI) are contiguous lands and waters officially designated by the province that have geological or ecological features of significant representative provincially, regionally, or locally. These features are important and valued for

natural heritage protection, appreciation, scientific study or education. Through a review of secondary source information including MNRF's Make a Natural Heritage Map website (MNRF 2019b), no ANSI's were identified in the Project study area.

Species at Risk

Under the provincial *Endangered Species Act* (ESA, 2007) and the federal *Species at Risk Act* (SARA), SAR and their habitats are protected. **Table 4-3** summarizes the potential use by SAR at the Wawa TS expansion area based on their broad ranges, habitat preferences/availability, and evidence of use from field surveys (**Appendix E-1**). Several SAR have confirmed use at or near the Wawa TS expansion area including Monarch *(Danaus plexippus*), Little Brown Myotis (*Myotis lucifugus*), and Northern Myotis (*Myotis septentrionalis*).

The southern portion of the Wawa TS expansion area and adjacent disturbed areas around the Wawa TS supports numerous Common Milkweed (*Asclepias incarnata*) plants, which are used as larval food by Monarch. Adult monarchs were observed at the project site in both 2017 and 2019.

Little Brown Myotis and Northern Myotis were detected foraging with the use of field surveys and an ultrasonic recorder in May-June 2019. No suitable maternity trees with cavities or flaking bark are present on the Wawa TS expansion area, and there is no evidence of use of the site for maternity or other roosts. No hibernacula are present on site. A single acoustic recording of a possible Tri-coloured Bat (*Perimyotis subflavus)* was made in 2019 (**Appendix E-1**), but it is considered tentative since the call was faint and it would represent an extra-limital record- the nearest known occurrence is near Espanola, much further south (Dobbyn 1994).

No other SAR were detected on the Wawa TS expansion area during 2017 (**Appendix A-2**) or 2019 field surveys (**Appendix E-1**). However, the forest of the Wawa TS expansion area could potentially provide suitable breeding habitat for SAR songbirds such as Eastern Wood-pewee (*Contopus virens*), Canada Warbler (*Cardellina canadensis*), and Olive-sided Flycatcher (*Contopus cooperi*). Canada Warbler were observed approximately 350 m to the north of the Wawa TS in 2017 (**Appendix A-2**) and Eastern Wood-pewee were reported at the Wawa TS in 2018 (Elm, 2019), but were not observed in 2017 or 2019.

Although they may have been historically present, Woodland Caribou are no longer found in the Wawa TS area. The Wawa TS expansion is outside the Lake Superior Coastal Range for forest-dwelling Woodland Caribou (*Rangifer tarandus*) (OMNR 2014), which is approximately 15 km to the west at its nearest point to the TS. Woodland caribou are listed as Threatened under Ontario's ESA (Government of Ontario 2019) and the federal SARA (Government of Canada 2019b).

Table 4-3: Review of Potential Species at Risk at Wawa TS

Species Common Name	Species Scientific Name	SARO	COSEWIC	Comments
American White Pelican	*Pelecanus erythrorhynchos*	THR	NAR	potentially foraging suitable habitat near site; no evidence of use
Bald Eagle	*Haliaeetus leucocephalus*	SC	NAR	potentially suitable habitat at or near site; no evidence of use
Peregrine Falcon	*Falco peregrinus*	SC	NAR	no suitable breeding habitat at or near site; no evidence of use
Yellow Rail	*Coturnicops noveboracensis*	SC	SC	no suitable breeding habitat at or near site; no evidence of use
Black Tern	*Chlidonias niger*	SC	NAR	no suitable breeding habitat at or near site; no evidence of use
Common Nighthawk	*Chordeiles minor*	SC	THR	potentially suitable habitat at or near site; no evidence of use
Eastern Whip-poor-will	*Antrostomus vociferus*	THR	THR	potentially suitable habitat near site; no evidence of use
Chimney Swift	*Chaetura pelagica*	THR	THR	no suitable breeding habitat at or near site; no evidence of use
Olive-sided Flycatcher	*Contopus cooperi*	SC	THR	potentially suitable habitat at or near site; no evidence of use
Eastern Wood-pewee	*Contopus virens*	SC	SC	potentially suitable habitat at or near site; no evidence of use
Bank Swallow	*Riparia riparia*	THR	THR	no suitable breeding habitat at or near site; no evidence of use

Species Common Name	Species Scientific Name	SARO	COSEWIC	Comments
Barn Swallow	*Hirundo rustica*	THR	THR	no suitable breeding habitat at or near site; no evidence of use
Canada Warbler	*Cardellina canadensis*	SC	THR	potentially suitable habitat at or near site; no evidence of use
Rusty Blackbird	*Euphagus carolinus*	SC	SC	potentially suitable habitat near site; no evidence of use
Short-eared Owl	*Asio flammeus*	SC	SC	no suitable breeding habitat at or near site; no evidence of use
Evening Grosbeak	*Coccothraustes vespertinus*	SC	SC	potentially suitable habitat at or near site; no evidence of use
Northern Brook Lamprey	*Ichthyomyzon fossor*	SC	SC	no suitable habitat at or near site; no evidence of use
Silver Lamprey	*Ichthyomyzon unicuspis*	SC	SC	no suitable habitat at or near site; no evidence of use
Lake Sturgeon	*Acipenser fulvescens*	THR	THR	no suitable habitat at or near site; no evidence of use
Pygmy Whitefish	*Prosopium coulteri*	not listed	THR	no suitable habitat at or near site; no evidence of use
Little Brown Myotis	*Myotis lucifugus*	END	END	suitable foraging habitat at or near site and evidence of use
Northern Myotis	*Myotis septentrionalis*	END	END	suitable foraging habitat at or near site and evidence of use
Cougar	*Puma concolor*	END	DD	potentially suitable habitat near site; no evidence of use
Woodland Caribou	*Rangifer tarandus caribou*	THR	THR	no longer any potentially suitable habitat at or near site; no evidence of use
Snapping Turtle	*Chelydra serpentina*	SC	SC	potentially suitable habitat near site; no evidence of use
Yellow-banded Bumble Bee	*Bombus terricola*	SC	SC	potentially suitable habitat near site; no evidence of use
Gypsy Cuckoo Bumble Bee	*Bombus bohemicus*	END	END	potentially suitable habitat near site; no evidence of use
Monarch	*Danaus plexippus*	SC	END	suitable breeding habitat at site; evidence of use
Aweme Borer Moth	*Papaipema aweme*	END	END	no suitable habitat at or near site; no evidence of use
Flooded Jellyskin	*Leptogium rivulare*	NAR	SC	no suitable habitat at or near site; no evidence of use

Wildlife and Significant Habitat

OMNR's *Significant Wildlife Habitat Technical Guide* (SWHTG) (OMNR 2000) is a detailed technical manual that provides recommended approaches for identifying, describing and prioritizing significant wildlife habitat (SWH). In recognition of the variability of the Ontario landscape, an addendum to the SWHTG has been developed that provides ecoregion-specific criteria for determining the significance of wildlife habitat. The Significant Wildlife Habitat criteria schedule for Ecoregion 3E, which overlaps the Wawa TS, has recently been developed (OMNRF 2015) and is used as a guide here. The 3E criteria schedule used expert opinion and the latest scientific literature to develop significance thresholds for significant wildlife habitat. The SWHTG and associated schedules provide detailed supporting information for the *Natural Heritage Reference Manual for Natural Heritage Polices of the Provincial Policy Statement, 2005* (OMNR 2010). As per the SWHTG, there are four general types of significant wildlife habitat:

- habitats of seasonal concentrations of animals;
- rare vegetation communities or specialized habitat for wildlife;
- habitat of species of conservation concern; and
- animal movement corridors.

According to the SWHTG (OMNR 2000), seasonal concentration areas are areas where wildlife species occur annually in aggregations at certain times of the year. OMNR (2015) provides criteria for determining if seasonal concentrations of wildlife should be considered significant wildlife habitat. Potential for habitats of seasonal concentrations at or near the Wawa TS are summarized in **Table 4-4**.

A total of 35 bird species were observed during 2017 and 2019 fieldwork (**Appendix A-2** and **Appendix E-1**), many of these were not present on the actual TS expansion area but could potentially use it. Additional avian species may use the Wawa TS area in other years. The site does provide breeding habitat for bird species that prefer mixedwood forests, and are tolerant of anthropogenic disturbance and/or edge effects. These include such species as American redstart (*Setophaga ruticilla*), chestnut-sided warbler (*Setophaga pensylvanica*), red-eyed vireo (*Vireo olivaceus*), black-capped chickadee (*Poecile atricapillus*), and American robin (*Turdus migratorius*).

Other species were heard from adjacent areas, or were using the pond habitat e.g., broad-winged hawk (*Buteo platypterus*), ring-necked duck (*Aythya collaris*), and belted kingfisher (*Megaceryle alcyon*). No bird nests, including those of raptors, SAR, or colonial nesting birds that might qualify as SWH, were observed during the June 2019 fieldwork.

In addition to SAR bats, the pond north of the Wawa TS is also used by foraging Big Brown Bat (*Eptesicus fuscus*), Red Bat (*Lasiurus borealis)*, Hoary Bat (*Lasiurus cinereus*), and Silver-haired Bat (*Lasionycteris noctivagans*). The only other mammals observed during field survey at or near the Wawa TS were American Red Squirrel (*Tamiasciurus hudsonicus*) and North American Beaver (*Castor canadensis*). Additional mammals species (e.g., rodents, insectivores) may be present or use the site seasonally. Green Frogs (*Lithobates clamitans*), American Toads (*Anaxyrus americanus*), and Spring Peepers (*Pseudacris crucifer*) were heard in the adjacent pond in 2019. No turtles or other reptiles were observed during 2017 or 2019 fieldwork, although additional species may be present.

Table 4-4: Assessment of seasonal concentrations of wildlife in or near the proposed Wawa TS expansion (from Ecoregion 3E criterion schedule MNRF 2015).

Type of Seasonal Concentration	Proposed Wawa TS Expansion	Adjacent Landscape
Moose late winter habitat	None	None documented. Dense spruce and other conifer is limited and the proximity to the existing TS and other development limits potential.
Waterfowl stopover and staging areas	None	None documented.
Shorebird migratory stopover areas	None	None documented and there is a lack of open shoreline habitat on the adjacent pond
Bat hibernacula	None	None documented. No suitable habitat present.
Bat maternity colonies	None	None documented or detected. No suitable habitat (snags with cavities, buildings) present
Bat migratory stopover area	None	None documented. Stopover of some species may occur, but unlikely to be significant given the absence of landforms likely to concentrate migrants.

Type of Seasonal Concentration	Proposed Wawa TS Expansion	Adjacent Landscape
Turtle Wintering Areas	None	No suitable habitat
Reptile hibernacula	None	None documented. No suitable habitat observed
Colonial bird nesting sites – bank & cliff	None	No suitable habitat
Colonial bird nesting sites – trees & shrubs	None	None documented or observed
Colonial bird nesting sites – ground	None	No suitable habitat

Initial Ecological Land Classification (ELC) and vegetation community (ecosite) delineation was undertaken through the review of satellite imagery and existing Forest Resource Inventory (FRI) mapping from the provincial LIO. The field surveys then confirmed and updated the vegetation community boundaries and classification from LIO using provincial Ecological Land Classifications (ELC) products (i.e., Banton et al. 2009; Taylor 2000). ELC was utilized to broadly characterize the ecosites within the study area as well as to identify the presence of significant wildlife habitat such as rare or sensitive vegetation communities and species.

The proposed TS expansion is predominately forested, with cleared areas along the southern margin with adjacent to the TS and the eastern portion along the access road. Field verification determined the forest to be Ecosite 108: Fresh Silt to Fine Loamy: Mixedwood (Banton et al. 2010). The dominant overstory species are trembling aspen (Populus tremuloides), white birch (*Betula papyrifera*), and balsam fir (*Abies balsamea*). The vegetation type (V-type) is V11 Trembling Aspen-Black Spruce - Bush Honeysuckle - Herb Rich (Taylor et al. 2000). See the 2017 field survey report (Foster and Harte, 2017) in **Appendix A-2** for further details. A total of 75 species of vascular plants were observed on the proposed TS expansion, of which 22 were non-native. Additional species were observed in adjacent areas in the 2017 field survey (**Appendix A-2**). No rare, sensitive or SAR were identified during the field surveys. Red Spruce (*Picea rubra*), which is considered provincially rare to uncommon (S3) by OMNRF's Natural Heritage Information Centre (NHIC), has been reported near the Wawa TS (Elm 2019), although not on the proposed expansion area. The taxonomic status of Red Spruce in

the Wawa area is in some question however, as it is hundreds of kilometers beyond the northern limit of its documented range in Ontario (e.g., Hosie 1979; Kershaw 2001; NRC 2018; MNRF 2018).

According to the OMNR (2000), some wildlife species require large areas of suitable habitat for their long-term survival. Specialized habitat for wildlife is a community or diversity-based category, therefore, the more wildlife species a habitat contains, the more significant the habitat becomes. The Wawa TS expansion area is only 0.6 ha in size, so has low potential for specialized habitat for wildlife according to the Ecoregion 3E criteria schedules. Specialized habitats for wildlife are summarized in **Table 4-5**.

Table 4-5: Assessment Specialized Habitat for in or near the proposed Wawa TS expansion (from Ecoregion 3E criterion schedule MNRF 2015).

Natural Feature	Proposed Wawa TS Expansion	Adjacent Landscape
Waterfowl Nesting Area	None	Nesting by one or two pairs of ducks (e.g., common goldeneye or ring-necked duck) is possible on the adjacent pond, although no young observed during 2017 or 2019 fieldwork. Unlikely to meet threshold for significance
Bald Eagle and Osprey Nesting, Foraging And Perching Habitat	None	None documented or observed. Possible foraging or perching habitat along the shore of the adjacent pond, although small size limits potential and unlikely to be significant
Woodland Raptor Nesting Habitat	None observed; low potential	None documented or observed. Potentially suitable mixedwood on TS expansion but potential disturbance from existing TS and other development
Turtle Nesting Areas	None	None documented and no turtles or nests observed during 2017 or 2019 fieldwork. Potentially suitable habitat is present however along the road shoulder adjacent to the pond (outside the TS addition).
Seeps and Springs	None	None documented or observed during fieldwork.
Aquatic Feeding Areas	None	Submergents and yellow pond lily are present in the pond to the north of the TS expansion but no evidence of use by moose or deer
Mineral Lick	None	None documented or observed during fieldwork.
Denning Sites for Mink, Otter, Marten, Fish, and Eastern Wolf	None observed; low potential	None documented or observed during fieldwork and potential disturbance from existing TS and other development
Wolf Rendezvous Sites	None	None documented or observed during fieldwork and potential disturbance from existing TS and other development

Natural Feature	Proposed Wawa TS Expansion	Adjacent Landscape
Amphibian Breeding (Woodland)	None	No vernal pool present on the TS expansion
Amphibian Breeding (Wetlands)	None	Suitable habitat present in adjacent pond but does not appear to meet threshold for significance
Mast Producing Areas	None	No oaks or other nut-bearing trees are present, and limited fruit-bearing shrubs such as raspberries and pin cherries
Sharp-tailed Grouse Leks	None	No suitable habitat present

According to OMNR (2000), species of conservation concern include the following:

- species that are identified as Special Concern under the ESA on the SARO List, which were formally referred to as "Vulnerable" in the Significant Wildlife Habitat Technical Guide;
- species identified as nationally Endangered or Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) but which are not protected in regulation under Ontario's ESA;
- species that are rare or substantially declining in Ontario; and,
- species that have a high percentage of their global population in Ontario.

Special Concern species and those awaiting listing under the ESA are discussed above under the **Species at Risk** section. No species that are rare or substantially declining in Ontario are documented at or near the Wawa TS expansion area, nor were any observed during 2017 and 2019 field surveys. No species that have a high percentage of their global population in Ontario are known from at or near the Wawa TS. The expansion area does not provide any significant habitat for marsh birds, open country birds, or birds using early successional habitats birds based on its habitat, observed species, and small size (0.6 ha). The Wawa TS expansion area

does not provide and significant animal movement corridors either, due to its small size and location adjacent to the Wawa TS, road and railway.

4.7 Recreational Resources

Land use within the study area surrounding the TS includes transportation (e.g., access road and railway) and commercial and non-commercial recreational uses. As noted in **Section 4.2** the lands are identified as patent land. Several cottages are situated along the Anjigami Lake and Anjigami Lake Road, as well as one cottage/residence at the most northerly edge of the study area further north along the road. A portion of Anjimagi Lake (at its northern extent) is also within the study area. The lake and surrounding lands are used by private cottages/residences and commercial recreational users. Camp Anjigami area is situated beyond the study area on the lake with drive-in cabins used for tourism and recreational purposes. The camp is located at approximately 18 km south of Highway 101 via Anjigami Lake Road, which passes by the existing TS immediately to the west. (Camp Anjigami, 2019). Outpost Camps Inc. is another operation that offers fly-in access to the lake. A commercial boat cache and access point are also situated to the southwest of the TS, beyond the study area, as identified in the EWT Transmission Line EA Appendix 19-1, Figure 19-I-3E. For both commercial and non-commercial users, the lake provides boating, fishing and swimming activities while surrounding lands may be used by local residences/cottages and those accessing commercial facilities for hiking, snowshoeing, all-terrain vehicle (ATV) use, snowmobiling, and hunting, etc.

Mapping in the FMP for the Algoma Forest identifies Recreation Route/Trails within the areas surrounding the TS (CFMI and OMNR, 2009). Some of these appear to follow maintained corridors (e.g., roads and transmission line corridors).

4.8 Visual and Aesthetic Resources

Visual and aesthetic resources are considered with respect to the physical appearance of the landscape and how the proposed Project may result in changes. Topographical maps, aerial photos and photos of the existing TS and expansion area undertaken during environmental field surveys (**Appendix A-2**, **Appendix E-1** and **Appendix E-5**) were used to assess visual and aesthetic resources.

The existing landscape at Wawa TS is representative of a rural environment with the presence of mature northern Ontario forest, the nearby Lake Anjigami to the south of the TS and the pond to the northwest of the expansion area. The existing station is surrounded by mature woodlot on all sides except in areas where transmission lines intersect the TS (which are cleared and maintained) and where the Anjigami Lake Road and railway to the east of the TS traverse the study area. Nearby cottages are situated to the south and on the opposite side of the TS and the expansion area. The road provides access to both the TS and the nearby cottages on and near Lake Anjigami. One cottage/residence is situated to the northernmost extent of the study area along the access road and beyond the pond. The existing station is based on a concrete pad and is fully visible from Anjigami Lake Road. Some portions of the TS are visible also from the pond but it is largely hidden from a view from Lake Anjigami by the natural screening provided by mature trees.

5 Alternative Methods

This section describes the reasonable "alternative methods" for carrying out the proposed Project. "Alternative methods" refer to different means of carrying out the same task to achieve the purpose of the undertaking (e.g., different routes or sites). Potential "alternative methods" are identified based on presence of environmental features, technical and cost factors, and input received during the consultation process, and follow the recommendations of the PPS (PPS, 2014). Following the identification of "alternative methods" for the undertaking, evaluation criteria are established, and evaluation and selection of the preferred alternative occurs.

Due to the current 230 kV bus and breaker configuration at Wawa TS and several physical constraints surrounding the station, namely the private road (Anjigami Lake Road) and the railway to the east, the water body to the west and the Hydro One Sault Ste. Marie (formerly Great Lakes Power) TS to the south, there is only one feasible alternative: to expand on the north side of the TS. The proposed expansion area is in close proximity to the new EWT transmission line where it will connect and tie-in to the existing station.

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6 Project Description

The proposed Project is similar to many other projects completed by Hydro One. The proposed Project will expand the footprint of the existing TS by approximately 0.6 ha, and consists of the following major components:

- Reconfiguration of 230 kV buses and diameters;
- Installation of new 230 kV circuit breakers and disconnect switches and connection of the circuits;
- Re-termination of some of the existing 230 kV circuits inside Wawa TS;
- Connection between the last structure of the new EWT line's 230 kV circuits outside Wawa TS, and structures inside the station; and,
- Installation of a new relay building to house electronic devices critical for safety, reliability and security of the power system.

6.1 Design Phase

Following completion of the Class EA process, detailed engineering and design for the proposed Project will be completed. The final design plans will be based on necessary surveys and consultation, including the geotechnical survey and slope stability assessment. Concurrent with finalization of the design, the required permits, licences and approvals (as listed in **Section 1.4.2**) will be obtained. Hydro One will also finalize restoration plans in consultation with the appropriate stakeholders and local community, as necessary.

An Environmental Specification document will be prepared following the completion of the Class EA process that will provide specific directions to construction personnel, summarizing legislated requirements and environmental commitments set out in the final ESR. This will include all required monitoring, as specified in the monitoring plan (**Section 8**).

6.2 Construction Phase

Construction and maintenance activities will be guided by Hydro One's environmental policy; these are to be adhered to by all construction personnel including sub-contractors. In addition,

the project-specific Environmental Specification, outlining specific requirements for the proposed Project, will be followed during the construction phase. Hydro One will adhere to Appendix E of the Class EA for typical mitigation measures for the most common potential effects of EA projects. Specific project related mitigation measures will also be taken in order to undergo approvals and construction.

Construction will involve the following activities:

Station Expansion

The expansion of the existing Wawa TS would involve:

- Site preparation including clearing and grading;
- Modification of station fencing and security systems around the expanded area;
- Delivery and installation of switching equipment;
- Delivery and installation of equipment for protection, control and telecommunications;
- Installation of station foundations and steel support structure;
- Expansion of ground grid and lightning protection masts;
- Installation of a relay building for housing protection, control and telecommunication equipment;
- Construction of station roads; and,
- Clean up and site restoration.

Line Work

The required line work within the expanded area will involve:

- Installation of foundation at the new structure locations;
- Construction and installation of line entrance/exit structures;
- Stringing new transmission conductors (wires) on the structures inside the station to the last structure of new EWT line's 230 kV circuits outside Wawa TS; and,
- Clean up and site restoration.

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 Hydro One's construction standards and guidelines as well as the Environmental Specification that will be prepared for the project.

Upon completion of construction, clean up and restoration (e.g., seeding) of areas disturbed by construction will occur, as required. As well, operation and maintenance staff will be provided with a briefing and "as constructed" documentation covering ongoing commitments, including monitoring and notification requirements, if applicable.

Should any archaeological finds be uncovered during construction, work will stop immediately pending assessment by the project archaeologist and further consultation with the MTCS, as well as the appropriate FN&M communities.

6.3 Maintenance and Operation Phase

The expanded station will continue to be operated remotely from Hydro One's grid control centre. An operator will make periodic inspections and will be dispatched to the station in case of emergency. Whenever preventative or emergency maintenance is required, a crew will be dispatched to the site. The station will be fully equipped with spill containment and oil/water separation facilities. In the event of equipment failure, oily water will not escape from the site. An Emergency Response Plan will govern spill response. Spill cleanup and response equipment will be located on site.

Throughout the operating life of the station, preventative and emergency maintenance will be carried out to ensure that equipment operates according to design parameters and to ensure compliance with Hydro One standards of safety, reliability, citizenship and cost. Snow will be cleared to allow site access.

6.4 Project Schedule

The anticipated schedule for 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 and commissioning of the proposed expanded station.

Table 6-1: Project Schedule

ACTIVITY	PERIOD
Draft ESR for 30-day public review and comment period	July to August 2019
Comment integration and response	August to September 2019
Filing of final ESR and Class EA Statement of Completion with the MECP	September 2019
Construction start	October 2019
Planned in-service date	October 2021

7 Potential Environmental Effects and Mitigation Measures

This section describes the potential environmental effects and mitigation measures associated with both the short-term (construction) and long-term (operation) activities of the proposed Project. The assessment of potential environmental effects for the proposed Project considered the baseline information on the environmental features that was collected for the study area as presented in **Section 4**.

The potential environmental effects resulting from the construction and operation of the proposed Project are similar to other projects undertaken by Hydro One and are well understood. 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 following sections describe potential environmental effects for both the construction and operational phases of the proposed Project. The selection of mitigation measures are based on the following seven (7) 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 area residents, property owners and businesses on proposed Project timelines and construction areas;
- Proactive communication with FN&M 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, and in accordance with applicable legislative requirements; and,

- Development of environmental enhancement or compensation measures to offset the unavoidable effects of construction and operation where such effects exist and where practical.

The proposed expansion of the Wawa TS will result in the loss of approximately 0.6 ha of mixed forest type habitat. Habitat loss includes the direct footprint of the proposed expansion of the Wawa TS. The value and sensitivity of affected areas has been assessed locally and regionally to be low due to the implementation of the proposed mitigation measures and no significant adverse or residual effects are expected to result following construction.

7.1 Agricultural Resources

As indicated in **Section 4.1**, there are no agricultural resources within the study area, and therefore, no potential effects have been identified for the proposed Project.

7.2 Forestry Resources

The proposed Project will expand the footprint of the existing TS by approximately 0.6 ha to the north and west of the existing TS. This expanded area comprises mostly of mixedwood forest north of the TS, with a small portion of existing road and a small, open, disturbed area in the southeast corner of the proposed expansion. The expansion will require the removal of trees. As indicated in **Section 4.2**, the expansion area is within patent land area acquired from an adjacent landowner and the Hydro One lands are currently not being used for forestry practices. However, to mitigate adverse effects on adjacent woodlot during the removal of trees within the footprint of the proposed Wawa TS Hydro One will ensure that the value of any adjacent resource is not affected during the construction phase of the proposed Project or during the operational phase of the Wawa TS.

7.3 Cultural Heritage Resources

Minimum potential exists for the proposed Project to affect any built heritage resources, cultural heritage landscapes or archaeological resources during construction as none of these resources were identified at the project onset or during the completion of archaeological field investigations, as noted in **Section 4.3**.

In the event that 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 will be communicated to the MTCS. In the event that human remains are encountered, Hydro One will immediately stop work in the area and notify local police, the coroner's office, MTCS and the Registrar of Cemeteries. In addition, all FN&M communities that have an interest in the project and/or location will also be immediately contacted so that, in the event such resources or remains are First Nation or Métis in origin, protocols for handling such resources can be established immediately prior to the disturbance or removal of such from the property.

As was noted earlier in **Section 4.3**, MFN is in the process of completing a Traditional Knowledge Study for the Project. Should the results of this study indicate the potential for the proposed project to adversely impact any cultural heritage resources, Hydro One has committed to mitigate such effects to the greatest extent possible, in consultation with MFN. This study is still ongoing and Hydro One will continue to work with MFN to integrate the study results into the project, where appropriate.

7.4 Land Use and Communities

If not appropriately controlled, construction sites pose potential safety hazards to local land users and residents due to the operation of heavy construction equipment. This is of concern given use of the Anjigami Lake Road by local cottagers/residents as well as potential unidentified hiking trails which may also be used by local residents.

Hydro One will mitigate safety issues by implementing strict safety measures in accordance with Hydro One's policy during construction. To minimize the effects of construction on public safety, Hydro One will undertake a wide range of safety measures, adding signage, fencing and locks to construction laydown areas, installing additional lighting in construction laydown and equipment storage areas, carefully selecting construction laydown areas and access road, informing adjacent cottagers/residents, landowners and commercial establishment operators of proposed Project activities prior to construction, and if required, provide alternative road and/or pedestrian access for cottages and properties where traditional access routes are blocked by construction activities.

Air Quality

Temporary, localized effects on air quality in the immediate vicinity of the proposed Project may be created by construction activities. Fugitive dust and combustion products from the movement and operation of construction equipment, machinery and vehicles comprise the primary emissions from construction. As a result, during the construction phase these emissions may create a nuisance or disturbance effect for local cottagers/residents and land users.

In order to reduce potential nuisance effects of dust and air emissions, mitigation may include: maintenance of equipment used on site to minimize exhaust, adherence to Hydro One's policy on anti-idling requirements and the installation of Global Positioning System (GPS) in vehicles to optimize routing. Effective dust suppression techniques such as on-site watering, application of calcium chloride and/or road sweeping will be used, as necessary.

During maintenance and operation, emissions from maintenance activities will be variable, and are expected to be short in duration, will occur periodically over the life of the proposed Project, and are expected to be generally similar to those already undertaken at the existing TS. Nuisance effects posed by these brief activities are expected to be negligible and will not result in noticeable or long-term changes to local air quality.

Noise and Vibration

Proposed Project activities have the potential to affect ambient noise levels during construction, which may create a nuisance or disturbance effect for cottagers/residents and land users. Noise associated with construction will most likely be a result of activities, such as general site grading, foundation work and construction traffic. These activities will 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. The movement of delivery and worker vehicles will also add to the noise levels during the construction period.

Mitigation measures to reduce potential nuisance effects resulting from noise include ensuring that noise abatement equipment on machinery is in good working order and maintaining equipment such that construction and maintenance activities conform to typical noise parameters, such as the MOECC NPC documents NPC-115 – Construction Equipment

(1978) and the MOECC Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning, Publication NPC-300 (2013). Hydro One will consider noise when deciding which equipment and construction work methods and schedule to use.

Construction activities will conform to any relevant local noise control.

Noise sources and noise levels from maintenance activities after construction will be variable, are expected to be limited to a short duration, and will occur periodically over the life of the proposed facilities. With the exception of periodic maintenance activities (inspection from ground-based vehicles and vegetation maintenance), no additional noise sources are expected as a result of the TS expansion during the maintenance and operation. There will not be an addition of any noise-generating equipment in the station, and the station will operate as is.

Proposed Project activities have the potential to affect nearfield vibration levels during the construction phase but are unlikely to cause nuisance and disturbance effects to local cottagers/residents and land users in the vicinity of the proposed Project.

Construction vibration will be temporary in nature, occur only during specific activities, and limited to the immediate vicinity of the construction work area. The range in the increased vibration levels associated with construction activities will depend primarily on the number and type of sources and their proximity to the point of reception. Vibration during operation and maintenance of the facilities is expected to be similar to that being experienced at the existing TS.

Mitigation measures to reduce potential nuisance effects resulting from vibration include the consideration of vibration when selecting equipment, construction work methods and work schedules for the proposed Project as well as taking reasonable measures to control vibration related to project construction near sensitive areas.

Mud

Construction activities may result in the accumulation of mud in construction areas. Mud related to construction activities will be removed from access roads if necessary. Vehicles and equipment will be 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.

7.4.1 Land Use Planning

The proposed Project is beyond the Municipality of Wawa's OP designated area. Rather the Growth Plan for Norther Ontario (2011) and PPS (2014) guide land use within the study area. The guiding principles for land use are discussed in **Section 4.4.1** and include support toward energy generation and investment in northern Ontario (MOI and MNDMF, 2011), and provision of opportunities to develop energy supply including electricity generation facilities (PPS, 2014).

7.4.2 Transportation

The study area is located within a rural landscape, with Anjigami Lake Road serving as a key access from Highway 101, and consequently the Trans-Canada Highway (Highway 17). Potential for disruption to vehicular traffic in the study area during the construction phase exists; however, it is expected to be minimal and temporary in nature.

To minimize disruptions and/or delays to local road traffic and emergency public safety services, construction areas and access points will be carefully designed to avoid and minimize adverse effects. Advanced notice will be provided to nearby cottages/residences, landowners and commercial operations, Algoma Central Railway Inc. (CN Rail), and emergency response services outlining the location of entry/exit points for the construction site (e.g., at the TS and Highway 101) as well as the schedule for construction work or construction related traffic in those areas. Road signage will also be created and installed to reflect this information.

7.4.3 First Nations Lands and Territory

As indicated in **Section 4.4.3**, there are no First Nations Reserve Lands located in the study area. However, the proposed Project is located within the traditional territory of FN&M communities; therefore, some traditional lands have the potential to be disturbed by construction and maintenance and operation activities of the proposed Project.

Hydro One is committed to developing and maintaining relationships of mutual respect with FN&M communities. Hydro One recognizes that FN&M 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 FN&M 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. Hydro One will seek to identify community concerns and build appropriate actions into proposed Project plans to address expressed concerns, as described in **Section 3.2**. Relevant information obtained through the MFN Traditional Knowledge Study will be used to guide Hydro One's decision making, where appropriate.

7.5 Mineral Resources

As discussed in **Section 4.5**, there are no aggregate resource operations within the study area. There are aggregate pits identified to the north but these appear to not rely on Anjigami Lake Road (unofficial) for access from the highway as alternate roads potentially providing more direct routes are present. While it is anticipated that these aggregate activities will not be affected by the proposed Project, Hydro One will consult with the private operations to confirm road access and usage.

7.6 Natural Environment Resources

Based on desktop data and field surveys, limited natural environment resources are found in the proposed Project study area. There are no anticipated residual effects on natural environment resources with avoidance and/or appropriate mitigation.

7.6.1 Physical Environment

Geology and Physiography

Surficial and bedrock geology are not predicted to be affected by the proposed Project given the localized extent of foundation structures. Physiography in the vicinity of the proposed Project is not predicted to be affected with backfill and site restoration following construction. Therefore, no net effects on the physical environment have been identified for the proposed Project.

Spills

During the construction phase of the proposed Project there is the potential for spills from the unintentional release of oils and fuels from construction vehicles and other equipment. The following mitigation measures are proposed to reduce the risk of spills and to minimize the effect in the unlikely event of a spill:

- Operating properly functioning and well-maintained vehicles and equipment;
- Developing and making available an Emergency Response Plan to govern spill and other emergency response in the unlikely event of occurrence;
- Locating spill cleanup and response equipment on-site and in Hydro One vehicles;
- Training personnel on spill management;
- Should they occur, cleaning up spills as soon as possible and remediating a site after a spill; and
- Undertaking refuelling, lubricating or servicing of construction vehicles and equipment in a designated location near spill cleanup equipment, at least 100 m away from water bodies and surface water drainage features.

During any phase of the project, in the event of an accidental spill of any material such as waste oil, fuel, lubricants or other pollutants, spills will be reported, managed and cleaned up in accordance with pertinent legislation and Hydro One procedures. All spills are to be reported to the MECP Spills Action Centre (SAC).

Waste Generation

During the construction of the proposed Project, Hydro One will follow stringent provincial policy and legislation to ensure the safety and protection of both ground and surface water resources, complying with the *Clean Water Act, 2006,* the PPS (2014).

Construction waste will be generated by the proposed Project and will need to be disposed of in regional landfills and recycling facilities. Waste generated during construction will be tested, handled, stored, transported and disposed of at licensed recycling and waste disposal facilities, as applicable, in accordance with applicable legislation (i.e., Ontario Provincial Standard

Specification [OPSS] 180). Waste produced will be minimized and segregated and recycled where possible.

7.6.2 Atmospheric Environment

Climate

The proposed Project is not a power generation project and its operation will not emit greenhouse gases. As noted in **Section 7.4 (Air Quality)**, construction and maintenance activities will result in temporary and localized fossil fuel emissions from the vehicles and equipment used. Hydro One adheres to initiatives such as anti-idling requirements and GPS installation in vehicles to optimize routing to reduce fossil fuel emissions. The emissions directly related to the construction and maintenance of this project are expected to 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. Hydro One is confident that the facilities being planned for this project have been engineered to adequately withstand the effects of climate change throughout the duration of their planned lifespan.

Air Quality

Temporary effects to local air quality in the immediate project vicinity may be caused by construction activities. Construction related emissions primarily comprise fugitive dust and combustion products from the movement and operation of construction equipment and vehicles. Due to the short and intermittent duration of construction activities, the potential effects associated with construction are anticipated to be minimal. As a result, local air quality is unlikely to be affected over the long-term from construction emissions associated with the proposed Project.

Proper servicing and maintenance of construction equipment and the implementation of best management practices can mitigate potential adverse effects to air quality from construction activities. Proper maintenance of construction vehicles and equipment can assist in reducing combustion emissions and should reduce effects on air quality. The proposed Project will adhere to Hydro One's Fleet Services Environmental Program, which includes anti-idling

requirements and GPS installation in vehicles to optimize routing. Similarly, the implementation of best management practices, such as on-site watering, can reduce the generation of fugitive dust. Therefore, it is likely that the effects of construction activities on local air quality will be negligible and no additional mitigation is required.

No additional emissions are expected as a result of the operation of the proposed Project, with the exception of periodic maintenance activities, such as inspection from vehicles. Depending on activities, emissions from maintenance activities during operation will be variable, are expected to be short in duration, and will occur periodically over the life of the proposed Project. These maintenance activities are not expected to result in long-term changes to local air quality. Therefore, no net air quality effects associated with maintenance and operation activities are anticipated. No additional mitigation is required.

Noise and Vibration

Construction activities may be a potential source of short-term, intermittent local environmental noise. Common construction methods are expected to be used to complete the necessary work activities associated with the proposed Project. Noise associated with construction will most likely be a result of the activities listed in **Section 6.2 (Construction Phase)**. These activities will require the use of various pieces of heavy equipment, such as bulldozers, front-end loaders, pickup trucks, backhoes, bobcats, dump trucks, compactors, concrete trucks and/or cranes. The movement of delivery and worker vehicles will also add to the noise levels during the construction period.

Noise sources and noise levels from maintenance activities after construction will be variable, are expected to be limited to a short duration, and will occur periodically over the life of the proposed facilities. During maintenance and operation of the TS, no additional noise sources are expected as a result of the TS expansion with the exception of periodic maintenance activities. Therefore, no additional mitigation is required for noise during the maintenance and operation of the TS.

Proposed Project activities have the potential to affect nearfield ambient vibration levels during the construction phase.

Construction vibration will be temporary in nature, occur only during specific activities, and limited to the immediate vicinity of the construction work area. The range in the increased vibration levels associated with construction activities will depend primarily on the number and type of sources and their proximity to the point of reception.

Mitigation measures to reduce potential nuisance effects resulting from vibration include: the consideration of vibration when selecting equipment and construction work methods, and determining work schedules for the proposed Project. Hydro One will take reasonable measures to control vibration related to construction near residential/cottage areas.

7.6.3 Surface Water Resources

Proposed project activities during the construction phase that have the potential to influence surface water quantity conditions in nearby aquatic ecosystems are:

- Site preparation, including vegetation removals, topsoil (organic) layer stripping, excavation and site grading;
- Earthworks associated with construction following felling of trees and vegetation clearing; and,
- Discharge of construction water from dewatering activities to ground surface.

Site Preparation

Site preparation, including activities such as removal of vegetation and construction of temporary access roads will be required to commence initial construction works.

Surface runoff following rain events from the temporary laydown and work areas is expected to be minimal and will remain localized. If site conditions change such that erosion or more permanent drainage features begin to develop during construction, Hydro One wwill construct temporary ditches for surface flow conveyance. Temporary ditches will be low gradient to minimize erosion and protected as required with the application of rock (rip-rap) protection and standard Erosion and Sediment Control (ESC) measures. These measures can include sediment traps, rock check dams and/or straw bale check dams.

There is a potential for minor temporary changes to stream flow and water levels in adjacent aquatic ecosystems (i.e., watercourses, wetlands, etc.) that could temporarily reduce baseflow to streams and wetland areas, especially with respect to dewatering activities. Any residual effects will be negligible and temporary in nature. Following construction, it is anticipated that all flow will be restored to normal rates.

At the end of construction, the project area will be seeded and temporary laydown areas will be restored to their original condition (i.e., grade) to the extent feasible. Therefore, as a result of site preparation activities, there will be negligible effects on surface water quantity.

Earthworks

Earthworks will be required during construction following felling of trees and vegetation clearing. Earthworks will include topsoil stripping, site grading and excavation.

To avoid or minimize the potential adverse effects of earthworks activities on surface water quality, the following mitigation measures will be implemented where feasible:

- Stage work to minimize the extent of exposed and disturbed areas at any given time;
- Stockpile soil and aggregates in designated areas above the Ordinary High Water Mark (OHWM) of watercourses and away from surface drainage features (i.e., ditches);
- Develop and execute site-specific ESC plans, as required;
- Minimize equipment operation adjacent to all environmental and natural heritage features; and
- Retain vegetation buffers along the perimeter of all environmental and natural heritage features.

With the implementation of the mitigation measures described above, and the short duration of the construction works, earthworks activities are not anticipated to have long-term residual effects on surface water quality conditions in nearby aquatic ecosystems.

Discharge of Construction Water from Dewatering Activities

The removal and discharge of construction water will likely be required as a result of dewatering activities in open trenches constructed for foundations or for underground utilities

and servicing. Construction water will consist of local stormwater runoff and groundwater intercepted during the excavation process. Construction water from dewatering activities will be discharged to a filter bag and, in turn, to the ground surface (i.e., a vegetated area). Under most runoff conditions, this discharge water is expected to largely infiltrate without any hydraulic connection to a permanent watercourse. The point of discharge for any dewatering operation will be monitored continuously to ensure any adverse effects are suitably minimized. To minimize the potential adverse effects of dewatering activities on surface water quantity conditions, the following mitigation measures will be implemented:

- Discharge construction water in compliance with the required permits and/or approvals from the MECP (if required); and,
- Develop and execute appropriate construction dewatering plans prior to construction, as required.

Construction dewatering operations between 50,000 - 400,000 Litres per day (L/day) can be registered with the MECP under the EASR. If dewatering activities are in excess of 400,000 L/day, a Permit to Take Water (PTTW) under the *Ontario Water Resources Act* (1990) will be required.

With the implementation of the mitigation measures described above, the short duration and localization of the dewatering activities, dewatering activities are not anticipated to have long-term residual effects on surface water quantity or groundwater resources in receiving watercourses.

7.6.4 Groundwater Resources

Construction related to the expansion the TS has a low potential to affect groundwater resources. The operation phase will continue to operate in the same manner as it is currently with regards to groundwater management.

Hydro One does not use herbicides for landscaping at Wawa TS and only uses a registered herbicide within the station fence to keep the station yard secure and safe for its workers. Vegetation is controlled so that it does not grow into the equipment or the station fence. A glyphosate-based herbicide such as Roundup is used as a spot treatment semi-annually. It is

Hydro One's herbicide of choice for the treatment of station yards because it has a short half-life, breaks down in the soil, and does not affect groundwater. Hydro One has a policy to maintain a minimum of 15 m herbicide-free buffer around all drinking water wells. No active, operational water supply well was identified within 1000 m of the Site, and therefore the herbicide treatment of the station will not affect wells in the area.

Contaminated Soil Disturbance

In the event that contaminated soil is encountered during the construction phase, disturbance of such soil has the potential to contribute to groundwater contamination. To minimize the potential adverse effects of potential disturbance of contaminated soils on groundwater, the following mitigation measures will be implemented:

- Hydro One will sample and analyze excess material that needs to be disposed of off-site to determine its disposal requirements; and,
- Soil and groundwater containment and disposal measures will be implemented (if required).

With the implementation of the mitigation measures described above, construction activities that have the potential to disturb contaminated soil are not anticipated to have residual effects on groundwater resources.

Excavation and Grading Activities

There is potential to encounter groundwater during excavation and grading activities in the construction phase. Removal of groundwater may result in temporary lowering of aquifers. Stormwater may also be discharged from excavations during dewatering activities in the construction phase. To minimize the potential adverse effects of excavation and grading activities on groundwater, the following mitigation measures will be implemented:

- 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;

- Discharge of water from dewatering activities will be in compliance with required permits and approvals from the MECP. If required, a PTTW or EASR will be obtained for dewatering, as per requirements in **Section 7.6.3** above;
- Adequate dewatering and discharge plans prior to construction will be developed (if required); and,
- Collected water will be contained and testing conducted prior to disposal (if required).

With the implementation of the mitigation measures described above, excavation and grading activities are not anticipated to have residual effects on groundwater resources.

7.6.5 Designated or Special Natural Areas

As indicated in **Section 4.6.5**, there are no designated or special natural areas within the study area, therefore, no effects or mitigation is detailed.

7.6.6 Natural Heritage Features

The nature of the construction disturbances associated with the proposed Project are both temporary and permanent in nature. Permanent adverse effects include the removal of approximately 0.6 ha of forest and associated wildlife habitat to accommodate the proposed TS expansion. Temporary adverse effects include those from work operations that physically, visually or sonically disrupt wildlife during active construction. The forest community to be removed is not unique in terms of species composition, species diversity and value or significance of wildlife habitat compared to the surrounding landscape.

Construction activities for the proposed Project will be restricted to the designated work area. Protective barriers, such as silt fencing will be erected to protect adjacent features from construction related effects. Silt fencing and/or other sediment and erosion control measures will also be installed as required to prevent the migration of sediment-laden water from leaving the construction site. Trees will be felled to minimize any damage to off corridor vegetation and fencing will be installed where there are any concerns regarding off corridor access or encroachment. In addition, vegetation removal limits will be clearly demarcated on drawings and plans before any work can proceed. Site access will utilize direct access from Anjigami Lake Road. Utilization of existing access infrastructure where possible during construction will limit disturbances to natural heritage features outside of the proposed Project footprint.

Other mitigation measures to be implemented 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 per applicable provincial and federal standards and guidelines;
- Using geotextile and gravel for temporary access, where feasible, to reduce compaction;
- Restoring compacted areas to relieve the compaction of the site. All disturbed sites will be leveled and grass seeded for restoration;
- Retention of compatible vegetation in constraint areas (e.g., road and environmentally sensitive areas); and,
- Installing barriers, such as silt fences to facilitate heightened protection of adjacent natural heritage features.

The primary laydown area for the proposed Project during construction will be located within the exiting Wawa TS and within the proposed expansion area. Laydown areas will not affect natural vegetation communities or sensitive natural heritage features outside of the proposed Project footprint.

Many of the wildlife species that occur in the study area are likely habituated to human activities and are mobile. Any sensitive resident animals can relocate temporarily to avoid noise and disturbance associated with construction activities. As construction disturbance will be limited in size, local and temporary in nature, minimal displacement of wildlife is anticipated. Any wildlife encountered during construction will be left alone and allowed to disperse from the site. In some instances, Hydro One may retain the services of a biologist or trapper to capture and/or relocate individuals that do not disperse naturally. Hydro One will secure and obtain all necessary permits and approvals to complete undertake trapping or capture of wildlife during construction. If any SAR are observed, work activities will cease immediately to avoid inadvertent harassment (which is prohibited under Section 9 of the provincial ESA, (2007) of the individual and not start again until the animal leaves the site on their own accord.

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 nests, eggs or nest shelters of migratory bird species. To avoid contravention of the MBCA, vegetation removal should be avoided during the breeding bird season for the Wawa region (C5) which is April 24 to August 29 (ECCC, 2018). If vegetation removal must occur during the breeding season, non-intrusive nest surveys would be undertaken following Environment Canada direction. Any active nests would be protected by a buffer, where construction activity would be restricted and would not be disturbed until the young have fledged. The size of the buffer zone would be species-specific and accordingly could range from 10 m for small migratory bird species up to 500 m for large raptors. All buffers will be greater in radius than the height of the canopy in order to ensure that trees felled in vicinity cannot damage the active nests.

There will be an approximately 20 to 30 m wide buffer of trees left along the northern perimeter of the expansion area, adjacent to a small pond and in this area only the trees that pose a falling hazard to an electrical line or station fence will be removed. All vegetation on the proposed station site will be removed including the stumps. The merchantable wood will be piled safely nearby on Hydro One-owned property and will be offered to the public or staff so that it can be taken during non-working hours. The un-merchantable material (limbs and brush) will be disposed of on-site through chipping or burning. Consultation with the MNRF will occur if any burning is to occur during the fire season. The stumps will be chipped or disposed of appropriately, at landfills or other legal locations. No stumps will be buried. In order to allow the installation of the necessary grounding grid for this station that is used to dissipate electrical current into the earth, all organic material must also be removed from this station site and replaced with suitable crushed aggregate. This organic material will be stockpiled and can be blended into the site upon the restoration phase of the project. If any station material is to leave the site, it will be tested for contamination prior to its departure.

Wetlands

There are no wetlands within the expansion area but mitigation with be done to limit off site effects. In general, removal of woody vegetation will be minimized during construction to the most extent feasible and construction activities for the proposed Project will be restricted to

the designated work area. Site disturbance will be minimized through utilization of existing access infrastructure, where feasible.

There are no sensitive vegetation communities or wetlands within the proposed Project area and direct or indirect adverse effects to such features are not expected.

Fish Habitat

Fish habitat will not be affected by the proposed Project; therefore, no mitigation has been detailed. Aquatic resources were reviewed from secondary source information and completion of a general site reconnaissance. No formal field investigations related to fish habitat were undertaken.

Woodlands

Significant woodlands have not been identified in the study area; therefore, no effects on woodlands as a result of the proposed Project are anticipated.

Valleylands

There are no valleylands present in the study area; therefore, no effects on valleylands as a result of the proposed Project are anticipated.

Areas of Natural and Scientific Interest

There are no ANSI's present in the study area; therefore, no effects on ANSIs as a result of the proposed Project are anticipated.

Species at Risk

Provincial and federal SAR designations are initially determined by the Committee on the Status of Species at Risk in Ontario (COSSARO) and Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and if approved by the provincial and/or federal minister are added to the provincial ESA, 2007 or federal SARA.

Both the ESA, 2007 and SARA prohibit the killing or harming of species identified as 'endangered' or 'threatened' in the various schedules to the Acts and provide protection to critical or regulated habitat for these species. Subsection 9(1) of the ESA, 2007 prohibits the

killing, harming or harassing of species identified as 'endangered' or 'threatened' in the various schedules to the Act. Subsection 10(1) (a) of the ESA, 2007 protects the habitat. General habitat protection is afforded to all threatened and endangered species and species-specific habitat protection is only afforded to those species for which a habitat regulation has been finalized and a permitting process where alterations to protected species or their habitats may be considered.

As noted above in **Section 4.6.6**, Woodland Caribou are no longer found in the Wawa TS area. The Wawa TS expansion is outside the Lake Superior Coastal Range for forest dwelling woodland caribou; therefore, no effects on Woodland Caribou as a result of the proposed Project are anticipated.

Mature seed pods of milkweed plants will be collected and seeds distributed in suitable alternate habitat under the existing transmission right-of-way post construction. Where possible, mature plants will also be transplanted to suitable adjacent habitat.

Wildlife and Significant Habitat

The proposed TS expansion does not appear to provide SWH. There are no rare vegetation communities on or near the proposed TS expansion. There is some limited potential for specialized habitat for wildlife Therefore, the proposed Project is not anticipated to have significant adverse effects on SWH for local wildlife.

7.7 Recreational Resources

Potential for disruption to vehicular traffic traversing the study area for the purposes of accessing cottages/residences and commercial operations for recreational activities during the construction phase exists; however, it is expected to be minimal and temporary in nature. To maintain access during construction activities to Lake Anjigami, local residences/cottages and commercial operations that utilize Anjigami Lake Road, and consequently Highway 101, Hydro One will develop a notification process to avoid and minimize adverse effects.

Advanced notice will be provided to nearby cottages/residences, landowners and commercial operations, outlining the location of entry/exit points for the construction site (e.g., at the TS and Highway 101) 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.

7.8 Visual and Aesthetic Resources

Currently, views of the existing TS are relatively limited and can only be seen from Anjigami Lake Road, and the pond, and fairly limited view from Lake Anjigami due to the presence of mature woodlot. The forest surrounding the station obscures views of the station from other properties and receptors. The proposed expansion to the north and northeast of the existing TS will require the removal of trees.

With the expansion area and new equipment and structures, the views of the site and property will undergo very little change, as trees removed in the expansion area to the north and northeast are part of a larger woodstand of mature mixedwood forest. The removal of vegetation and grading will be minimized and limited to areas required for the expansion area. Views into Hydro One's property will remain similar to current views.

The equipment and structures inside the expansion area will be similar to the current TS yard in size and height. Although there will be more equipment and structures, the views will contain items that already exist and, therefore, will not change the characters of views. Views above the station fence and tree line will remain similar to current views and will not affect the character and viewsheds.

7.9 Summary of Potential Environmental Effects, Mitigation Measures, and Residual Effects

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

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

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
EFFECTS TO FORESTRY RESOURCES			
Forestry Resources	Decrease in private forest resources	• Ensure only the necessary trees are removed.	No residual effects are predicted.
EFFECTS TO CULTURAL HERITAGE RESOURCES			
Archaeological and Cultural Heritage Resources	Based on the MTCS Criteria for Evaluating Archaeological Potential and Criteria for Evaluating Built Heritage Resources and Cultural Landscapes checklists, no effects are predicted during the construction, maintenance, or operation phases of the proposed Project.	• If archaeological material is encountered during the course of the project, Hydro One will immediately cease all activities with the potential to affect the archaeological material and engage a licensed archaeologist, as well as the MTCS, and the First Nations communities that were consulted with for the proposed Project. • In the event that human remains are encountered, Hydro One will immediately stop work in the area and notify the police, the coroner's office, MTCS and the Registrar of Cemeteries.	No residual effects are predicted.
EFFECTS TO HUMAN SETTLEMENTS			
Public Safety	Construction sites pose potential safety hazards to local land users due to the operation of heavy equipment during the construction phase.	• Construction areas to be fenced and locked where necessary with appropriate signage. • Nearby property owners to be informed prior to construction.	No residual effects are predicted.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
Air Quality	Emissions may be generated from vehicles during the construction, including dust and equipment and vehicle exhaust.	• Maintain equipment and machinery used on site to minimize exhaust. • Adhere to Hydro One's Policy on anti-idling requirements and the installation of Global Positioning System (GPS) in vehicles to optimize routing. • Use effective dust suppression techniques, such as on-site watering, as necessary.	Negligible residual effects are predicted. Effects on air quality will be temporary and limited to specific operations during the construction phase.
Noise	Noise may be generated during the construction phase.	• Ensure noise abatement equipment on machinery is in good working order. • Maintain equipment such that construction and maintenance activities conform to typical noise parameters. • Maintain access roads in good condition to avoid potholes and ruts that could result in extra vehicle noise associated with travelling on uneven roadway. • Restrict on-site vehicle end heavy equipment idling to only what is necessary for their proper operation. • Consider noise when deciding on equipment and construction work methods and schedule. • Construction activities will conform to typical noise parameters (such as MOECC documents NPC-115	Negligible residual effects are predicted due to remote location of project. Effects on noise will be temporary and limited to the construction phase.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
		and NPC-300 as identified in Section 7.4 above) to the extent feasible. Nearby cottagers/residents and property owners that utilize Anjigami Lake Road will be informed if activities need to be extended to facilitate their completion. If exemptions to the noise parameters are necessary, the requirements of applicable approvals processes will be met.	
Vibration	Vibration may be generated during the construction phase.	• Consider vibration when selecting equipment, construction work methods and determining work schedules. • Take reasonable measures to control construction-related vibration near sensitive areas.	Negligible residual effects are predicted These effects will be temporary and limited to the construction phase.
Mud	Mud may accumulate due to activities during the construction phase.	• Wash and maintain vehicles and equipment at work areas, as necessary. • Carry out formal clean-up and site restoration (e.g., restoration planting and seeding) as construction progresses.	Negligible residual effects are predicted These effects will be temporary and limited to the construction phase.
TRANSPORTATION			

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
Traffic Disruption	Road traffic may increase near the proposed Project due to equipment and materials delivery and worker vehicular traffic during the construction phase.	• Erect road signage and provide notification/pre-construction information to area residents on timelines and construction routes. • Communicate timing and the location of potential disturbance to Anjigami Lake Road to local residents and local land users prior to initiating work.	These effects will be temporary and limited to the construction phase. No residual effects are predicted.
NATURAL ENVIRONMENT RESOURCES			
PHYSICAL ENVIRONMENT			
Spills	Spills can lead to the direct contamination impacts on wildlife and habitat through acute and chronic effects.	• Refuelling of all vehicles and equipment to be undertaken in a designated location. • Spill clean-up equipment to be nearby and in Hydro One vehicles. • Spills will be cleaned up as soon as possible and the site remediated after a spill. • Any fuels, chemicals and lubricants are stored on level ground in properly contained storage areas. • An Emergency Response Plan is available on site, and there will be a 24/7 spill call line that will assist in responding to any spills. • All spills will be reported to the MECP Spills Action Centre (SAC).	No residual adverse effects are predicted.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
Waste Generation	Solid and/or liquid waste may be generated during the construction phase.	• Minimize waste produced and segregate and recycle waste, where possible. • Test, handle, store, transport and dispose of recyclables and waste at licensed recycling and waste disposal facilities, as applicable, in accordance with applicable legislation.	No residual effects are predicted.
EFFECTS TO SURFACE WATER RESOURCES			
Surface Water Features	Surface water features and wetlands may be impacted through increased sedimentation resulting from site preparation works, grading and excavation operations.	• Leave a buffer of trees between shoreline of pond and station construction activities for protection • Discharge construction water in compliance with the required permits and/or approvals, if required. • Develop and execute appropriate construction dewatering plans prior to construction, as required. • Carry out activities in the winter season or dry periods when ground conditions are stable and runoff events are infrequent, where feasible. • Stage work to minimize the extent of exposed and disturbed areas at any given time. • Stockpile soil and aggregates in designated areas above the OHWM of watercourses and away from surface drainage features (i.e., ditches). • Develop and execute site-specific ESC plans, as required.	No residual effects are predicted.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
		• Minimize equipment operation adjacent to all environmental and natural heritage features, where feasible. • Retain vegetation buffers along the perimeter of all environmental and natural heritage features, where feasible.	
EFFECTS TO GROUNDWATER RESOURCES			
Potential Contamination of Groundwater due to Soil Disturbance	Disturbance of contaminated soil during the construction phase may contribute to groundwater contamination.	• Sample and analyze excess material that needs to be disposed of off-site to determine its disposal requirements. • Implement soil and groundwater containment and disposal measures, if required.	No residual effects are predicted.
Removal and Disposal of Groundwater from Dewatering Activities	Potential to encounter groundwater during excavation and grading. Removal of groundwater may result in temporary lowering of aquifers. Stormwater may also be discharged from excavations during dewatering activities in the construction phase.	• 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. • Discharge of water from dewatering activities will be in compliance with required permits and approvals from the MECP. A PTTW or EASR will be obtained for dewatering greater than 50,000 L/day. • Develop adequate dewatering and discharge plans prior to construction, if required.	No residual adverse effects are predicted.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
		• Contain collected water and conduct testing prior to disposal, if required.	
EFFECTS TO NATURAL HERITAGE FEATURES			
Vegetation Communities and Wetlands	Destruction, loss and alteration of habitat.	• Site disturbance will be minimized through utilization of existing access infrastructure. • Construction activities will be restricted to the designated work area. • A vegetated buffer will be left between the expansion area and the waterbody immediately to the north • Mature seed pods of milkweed plants will be collected and seeds distributed in suitable alternate habitat under the existing transmission right-of-way post construction. Where possible, mature plants will also be transplanted to suitable adjacent habitat.	No residual effects are predicted.
Wildlife Individuals and Population	Harm, harassment or mortality of individual animals or population-level reduction in numbers.	• Clearing of trees and vegetation will occur outside the breeding season for birds and bats (i.e., no clearing from April 15 to September 30) • Check equipment each morning in order to detect wildlife that may have sought shelter or rest in the equipment overnight. • Regular "tailboard meetings" to discuss wildlife sightings and issues.	No residual effects are predicted.

ENVIRONMENTAL CONCERN	POTENTIAL EFFECTS	MITIGATION MEASURES	RESIDUAL EFFECT
Wildlife Habitat	Loss of significance, value and function of the habitat.	• Retain natural vegetation, where possible, by minimizing laydown areas. • Replace wildlife habitat for Monarchs by enhancing milkweed habitat in adjacent habitat through transplants of mature plants and seed pods.	No residual effects are predicted.
EFFECTS TO VISUAL AND AESTHETIC RESOURCES			
Visual impact of the station expansion	Construction activities may cause visual disturbance.	• Minimize visual impacts on land adjacent to the proposed Project by maintaining a clean and organized workspace. • Leave vegetation screens, where possible.	These effects will be predominantly temporary and remaining viewshed will be similar in nature to existing conditions.

8 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 previous sections, a project-specific Environmental Specification will be prepared following the completion of the Class EA process. The Environmental Specification will:

- Summarize legislative requirements;
- Summarize environmental commitments set out in the final ESR, and terms and conditions of approval, if any; and,
- Provide specific directions to construction personnel.

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.

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9 Conclusion

Hydro One has completed a Class EA for Minor Transmission Facilities in accordance with the EA Act for the expansion of Wawa TS located southeast of Municipality of Wawa, and north of Anjigami Lake. The proposed Project is required to accommodate the new EWT transmission line, which will be installed by NextBridge.

The proposed undertaking is described in Section 6 including the design, construction, maintenance and operation, as well as the project schedule.

Hydro One has conducted extensive consultations to inform stakeholders about the proposed Project, as well as to identify and resolve potential issues and concerns. Municipal, provincial and federal government officials and agencies, FN&M communities, potentially affected and interested persons, and interest groups were consulted by way of in-person meetings and/or written or telephone communications, as well as a CIC.

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 the information collected, project design and implementation of the proposed mitigation measures, no significant net adverse environmental effects are expected.

This draft ESR was made available for public review and comment 30 calendar days, from July 29, 2019 until 4:30 p.m. on August 30, 2019. Hydro One responded to and made best efforts to address comments raised by concerned parties during the review period. Comments received during this period have been documented in this ESR, as required by the Class EA process. No Part II order requests were received.

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

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10 References

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