Wawa Timmins Power Line Class Environmental Assessment

Draft Environmental Study Report

November 2026

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Environmental Services

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Executive summary

Hydro One Networks Inc. (Hydro One) has prepared this draft Environmental Study Report (ESR) for the proposed Wawa Timmins Power Line (the Project). The Project consists of a new, single-circuit 500 kilovolt (kV) transmission line approximately 305 kilometres (km) in length from Hydro One's Wawa Transformer Station (TS) near Wawa, Ontario to the Porcupine TS in Timmins, Ontario.

Hydro One is calling this undertaking the Wawa Timmins Power Line. To support the new transmission line, the Project also includes the establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS.

In Ontario, the Independent Electricity System Operator (IESO) is responsible for planning for the province's future energy needs. The IESO identified the need for added capacity in northeastern Ontario. To support this growth, the IESO identified the need for this transmission line to be in-service by 2030.

On November 28, 2024, Hydro One received an Order-in-Council (OIC) to have the Project incorporated into Hydro One's transmission license and designated the Project as a priority transmission project.

The Project is subject to the Class Environmental Assessment (Class EA) for Transmission Facilities (Class EA for TF) (Hydro One, 2024), an approved planning process under the *Environmental Assessment Act* (EA Act*)* designed for proponents to characterize the existing environment, assess potential environmental effects and mitigation, identify and evaluate alternatives, conduct consultation and document study findings. This draft ESR has been prepared in accordance with the Class EA for TF.

The right-of-way (ROW) of the line will be 75 metres (m) wide. At the outset of the Class EA, two study areas (Local Study Area [LSA] and Project Study Area [PSA]) were identified to consider existing conditions and potential effects associated with each of the alternative routes. The PSA was delineated to include lands within 120 m of each of

the alternative route centrelines. The LSA was delineated to include lands within 500 m of each of the alternative route centrelines.

Consultation

Consultation and engagement have been a central component of the Class EA process, guided by core principles of transparency, open dialogue, and a commitment to incorporating feedback into Project planning. This approach ensured that Indigenous communities, rights-holders, government agencies, elected officials, residents, landowners, and stakeholders had opportunities to provide meaningful input.

Hydro One has engaged with Partner Nations and other Indigenous communities prior to the public review period on the draft ESR and has received detailed comments which are not yet reflected in this draft report due to time constraints. Hydro One remains committed to addressing these comments and other comments received during the public review period and continuing engagement and dialogue with affected Indigenous communities. Any additional information, recommendations, or perspectives received from affected Indigenous communities throughout the development and completion of the EA will be reviewed, discussed, and considered in good faith and integrated, as appropriate, into the final ESR or subsequent stages of Project planning. This may include the refinement or addition of mitigation measures, and the identification of opportunities to avoid, minimize, and/or address potential effects of the Project.

Engagement tools and methods

To facilitate a robust and transparent consultation process, a wide variety of tools were utilized throughout the Project. These included:

- **Ad-mail notifications:** Hydro One distributed project notices through Canada Post admail to thousands of addresses, supplemented by local newspaper, radio, and social media advertisements;
- **Direct outreach:** Potentially and directly impacted landowners received letters via registered mail and in some instances hand-delivered notices;

- **Digital platforms:** The Project website (HydroOne.com/WawaTimmins) provided up-to-date information, Project materials, and an interactive map that allowed stakeholders to submit location-specific comments;
- **Community Open Houses:** Three rounds of in-person community open houses (COHs), allowed the public to engage directly with the Project team;
- **Technical Advisory Committee (TAC):** Two TACs were formed: an Indigenous TAC for Partner First Nations, and an Agency TAC consisting of representatives from municipalities, government agencies, and interest groups. Three workshops were held with each TAC to gather expert input to support the evaluation of the alternative routes;
- **Community Information Sessions (CISs):** Three rounds of in-person and virtual CISs took place with the Partner First Nations at various stages of the Project; and
- **Direct correspondence:** The Project team maintained ongoing dialogue through dedicated phone and email channels, as well as formal and informal meetings with various stakeholder groups.

Consultation timeline and key feedback

Engagement with Indigenous communities began in February 2025, prior to the formal commencement of the Class EA, and has continued throughout the EA process. Following the issuance of the Notice of Commencement (NoC), consultation began with municipalities, government agencies, elected officials, residents, landowners, and other interested groups. The feedback gathered throughout the process was critical in shaping the Project.

Key themes of feedback received through consultation included:

- **Property impacts:** Concerns about land acquisition, compensation policies, and the location of routes and associated infrastructure relative to homes and recreational areas;
- **Environmental concerns:** Queries regarding impacts on the natural environment, including wetlands, woodlands, and species at risk (SAR), as well as safety issues like electric and magnetic fields;

- **Community values:** Partner First Nations expressed concerns about potential impacts to community Values such as culturally significant areas;
- **Project need and scope:** Questions about the rationale for the new transmission line, tower design and location, and why existing infrastructure could not be used or upgraded; and
- **Process and transparency:** Questions about the EA process itself, how feedback would be used, and the commitment to a clear and flexible engagement approach.

Hydro One responded to Indigenous community and stakeholder feedback by providing information on the IESO's planning direction, the need for a new 500 kV transmission line, the environmental assessment process, and Hydro One's commitments regarding ongoing engagement and compensation for directly affected landowners. Feedback received during this early phase of the study was used to develop route identification criteria and inform the identification, evaluation, and refinement of alternative routes.

The consultation and engagement activities facilitated meaningful participation from a wide range of interested parties. This feedback was instrumental in identifying and evaluating potential Natural Environment, Indigenous Culture, Values, and Land Use, Technical and Cost Considerations, and Socio-Economic Environment effects. The information collected throughout this process, particularly through the TACs, CISs, and COHs, directly contributed to the identification of the preferred route.

Identification and evaluation of alternative routes

The identification of the preferred route for the Project was a systematic process that evaluated various alternative routes. This was achieved through a weighted Multi-Criteria Decision Analysis (MCDA), a five-step approach that compares feasible and reasonable alternative routes to determine the most suitable option. The five steps of the MCDA process are described in the sections below.

For this evaluation, Hydro One incorporated four categories, each of which included a range of criteria:

- Indigenous Culture, Values and Land Use;
- Natural Environment;
- Socio-Economic Environment; and
- Technical and Cost Considerations.

The evaluation of each alternative route involved a quantitative and qualitative assessment of its potential effects on the criteria within these categories.

Step 1: Establish need

The need for the Project was identified by the IESO to support the future energy requirements of northeastern Ontario. In response to this need, Hydro One was directed by the IESO through an OIC issued on November 28, 2024, to proceed with the development and approval of a new single-circuit 500 kV transmission line between Hydro One's Wawa TS near Wawa and Porcupine TS in Timmins, and establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS.

Step 2: Identify alternative routes

The process for identifying potential alternative routes for the Project was designed to be technically sound and transparent, ensuring viable options were considered.

A series of meetings and information sessions were held with the Partner First Nations prior to commencement of the EA process to support route identification. These workshops provided a forum for the Partner First Nations to offer feedback on potential routing criteria and their relative importance. The same four categories as listed above were used for route identification: Natural Environment, Socio-Economic Environment, Technical and Cost, and Indigenous Culture, Values and Land Use. This input, along with other data, was used to map and weight constraints as well as opportunity areas to support the identification of preliminary alternative routes.

The alternative routes developed through this process and considered as part of the Class EA are shown in **Figure E-1**. The corridor was divided into three segments, each of which contains alternative routes as follows:

Segment A

Route A1 begins at the existing Wawa TS and proceeds generally north to Highway 101, paralleling an existing 115 kV transmission line for most of this stretch. The route then takes a more direct route crossing Highway 101 and turning eastward before rejoining the existing transmission line. Route A1 then parallels the existing transmission line for approximately 82 kilometres (km) east/southeast. Along this section, Route A1 crosses Highway 101 a total of six times and parallels the highway (along with the 115 kV transmission line) for several stretches. The route turns southward approximately 1 km from the urban area of Chapleau and extends for approximately 5 km towards the Town of Devon, before tying into Segment B. The total length of Route A1 is approximately 97 km.

Route A2 also begins at the Wawa TS and extends generally north toward Highway 101. However, this route turns eastward sooner than Route A1, remaining on the south side of Highway 101 where it traverses approximately 13 km of forest. Route A2 converges with Route A1 near Highway 101 and continues eastward to parallel the existing 115 kV transmission line. The remainder of Route A2 is identical to Route A1. The total length of Route A2 is approximately 97 km.

Segment B

Route B1 extends southeast from Segment A, crossing Highway 101 before turning eastward. The route extends approximately 25 km east/northeast through forests, crossing Highway 129, and a railway. Route B1 then turns northward and extends approximately 21 km until it crosses to the north side of Highway 101. The route then continues northeast, generally paralleling Highway 101 (apart from a portion of the highway that extends through Foleyet) for approximately 72 km. The total length of Route B1 is approximately 125 km.

Route B2 follows the same path as Route B1 for approximately 78 km until it diverges eastward from Highway 101 approximately 32 km from Foleyet. The route then extends

approximately 41 km east/northeast through forests, crossing Ivanhoe Lake Provincial Park. The total length of Route B2 is approximately 117 km.

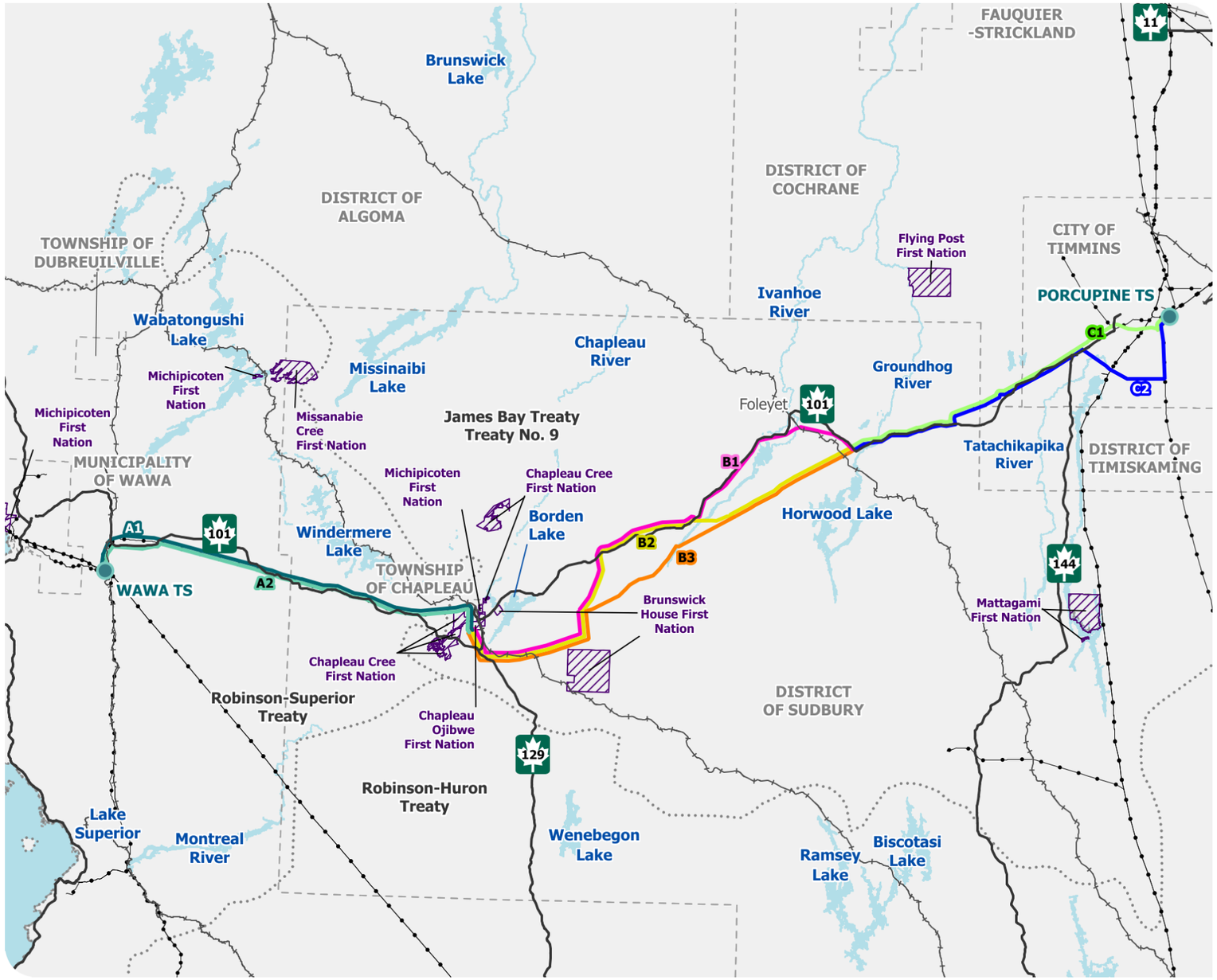
Route B3 follows the same path as Routes B1 and B2 for approximately 39 km until it diverges and extends northeast for approximately 42 km through forests, also crossing Ivanhoe Lake Provincial Park. The route converges with Route B2 east of the park and continues on the same alignment as Route B2 through approximately 32 km of forest. Route B3 does not parallel Highway 101, apart from an 800 m stretch within the initial portion that it shares with Routes B1 and B2. The total length of Route B3 is approximately 112 km.

Segment C

Route C1 extends northeast from Segment B, generally paralleling Highway 101 for approximately 25 km before turning north and then northeast to parallel an existing 115 kV transmission line for roughly 45 km. The route then turns eastward and extends through forests for approximately 11 km until it reaches an existing 115 kV transmission line. Route C1 then turns northward to parallel the existing transmission line for approximately 4 km before diverging to enter the Porcupine TS. The total length of Route C1 is approximately 85 km.

Route C2 follows the same alignment as Route C1 for approximately 60 km, generally paralleling Highway 101 and the existing 115 kV transmission line northeastward. The route then diverges southeast through forests for roughly 21 km until it reaches the same 115 kV transmission line that Route C1 parallels. Route C2 then turns northward and parallels the 500 kV transmission line for approximately 15 km before diverging to enter the Porcupine TS. The final 5 km of this route follows the same alignment as Route C1. The total length of Route C2 is approximately 97 km.

Figure E-1: Alternative routes



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

Alternative Routes (February 2026)

FIGURE E-1

Existing Transformer Station (TS)

Alternative Routes

- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter5.aprx; LAYOUT: 251043_ESR13_CH05_AlternativeRoutes

Step 3: Define criteria

Following the identification of alternative routes, the next step in the MCDA process is to define the criteria for the comparative evaluation. The evaluation criteria were developed using input from Partner First Nations, stakeholders, rights-holders, agencies, the TACs, and the Project team. They were grouped into four key evaluation categories as described in the sections below.

The data used for the evaluation across all categories included a mix of primary field data from surveys (e.g., aquatic habitat assessments), desktop analysis of available datasets, such as provincially significant wetland (PSW) data, Indigenous community Values, and aerial photography.

Natural Environment

The Natural Environment category, comprising six criteria, was designed to measure the potential effects of each alternative route on natural features. Key considerations included impacts to surface water resources and aquatic habitat, vegetation and vegetation communities, wildlife and wildlife habitat, wetlands, designated natural areas, and SAR and their habitats.

Socio-Economic Environment

The Socio-Economic Environment category included seven criteria aimed at measuring the Project's effects on local communities and economic activities. The criteria considered impacts on residential properties as well as commercial and industrial activities such as forestry, mining, and other resource-based land uses. It also evaluated how each alternative route affects cultural heritage resources including built heritage resources (BHR), cultural heritage landscapes (CHLs), and archaeological resources.

Indigenous Culture, Values, and Land Use

The Indigenous Culture, Values, and Land Use category included seven criteria that aimed to reflect Indigenous community input and considerations. The criteria focused on potential effects on areas supporting hunting, trapping, and harvesting grounds; surface waters and fisheries; rare or undisturbed native habitats; culturally significant species;

areas of historical/cultural significance, and protected areas. It also considered the benefits of co-locating with existing infrastructure.

Technical and Cost

The Technical and Cost category, which included eight criteria, evaluated the engineering and financial feasibility of each alternative route. The criteria measured factors including the total line length, the number structures and infrastructure crossings, and real estate considerations related to land acquisition. It also assessed the overall constructability of each route, considering factors like geographical features and complexity.

Step 4: Weight criteria

Following the establishment of the evaluation criteria, the Project team assigned weighting to each criterion to reflect its relative importance in the overall decision-making process. A fundamental principle was adopted at the outset: all four evaluation categories were given an equal weight of 25 percent of the total comparative evaluation. This ensured a balanced and equitable assessment where no single category could disproportionately influence the outcome. Within each of these categories, criterion weights were differentiated based on input from the TACs, Indigenous communities, and other stakeholders, as well as insight from the Project team.

Step 5: Evaluate and identify

Following the identification and weighting of the evaluation criteria and associated metrics, Geographic Information System (GIS) analysis was used to measure each alternative route based on the various metrics using available data sources. This process generated quantitative data for each route which was normalized, weighted, and totalled across the four categories. The overall scores were used to identify a preferred route that provides the best balance across all of Hydro One's evaluation criteria.

The final results of this weighted MCDA demonstrated a preference for the combination of Routes A2, B3, and C2 (**Figure E-2**), which were ranked as the most favourable options across the evaluation categories. The final weighted scores were as follows:

- **Segment A**
  - Route A1: 95.85; and
  - Route A2: 97.15.
- **Segment B**
  - Route B1: 82.24;
  - Route B2: 79.93; and
  - Route B3: 89.86.
- **Segment C**
  - Route C1: 92.26; and
  - Route C2: 93.60.

The identification of Routes A2, B3, and C2 as the preferred route was based on the following key findings from the comparative evaluation:

Segment A preferred alternative: Route A2

Socio-Economic Environment: Route A2 avoids more commercial, industrial, institutional, and recreational buildings and properties compared to Route A1. It also ranked higher in the cultural heritage criterion by avoiding more known or potential built heritage features and areas of archaeological potential.

Natural Environment: Route A2 is preferred as it results in less physical interaction with mapped waterbodies and wetlands and has a smaller footprint within potential SAR habitat.

Indigenous Culture, Values, and Land Use: Route A2 is preferred due to the protection of rare, undisturbed native habitats and the avoidance of culturally significant species.

Technical and Cost: Route A1 is technically preferred due to flatter terrain, constructability advantages, and fewer anticipated challenges for constructing access

roads. Route A1 also benefits from a higher level of infrastructure co-location. However, Route A2 has less impacts to landowners and has a shorter line length.

Segment B preferred alternative: Route B3

Socio-Economic Environment: This category was an important differentiator for Route B3 due to its avoidance of active mining sites and forestry operations. Notably, Route B3 is the highest-performing route for the residential properties criterion, as it contains zero residential buildings within the proposed ROW or PSA.

Natural Environment: Route B3 is preferred in this category due to the avoidance of wetlands and a smaller area of mapped waterbodies within the ROW compared to Routes B1 and B2.

Indigenous Culture, Values, and Land Use: Route B3 is preferred as it avoids more moose habitat and black ash stands than the other alternative routes. It also ranks higher in the surface water and fisheries criterion due to the smaller area of mapped waterbodies within its ROW.

Technical and Cost: Route B3 offers significant advantages in this category, particularly in the Real Estate Considerations criterion. It impacts significantly fewer property parcels and has a smaller total area of impact compared to Routes B1 and B2. It is also preferred for constructability, offering the most direct path and the greatest flexibility for tower placement.

Segment C preferred alternative: Route C2

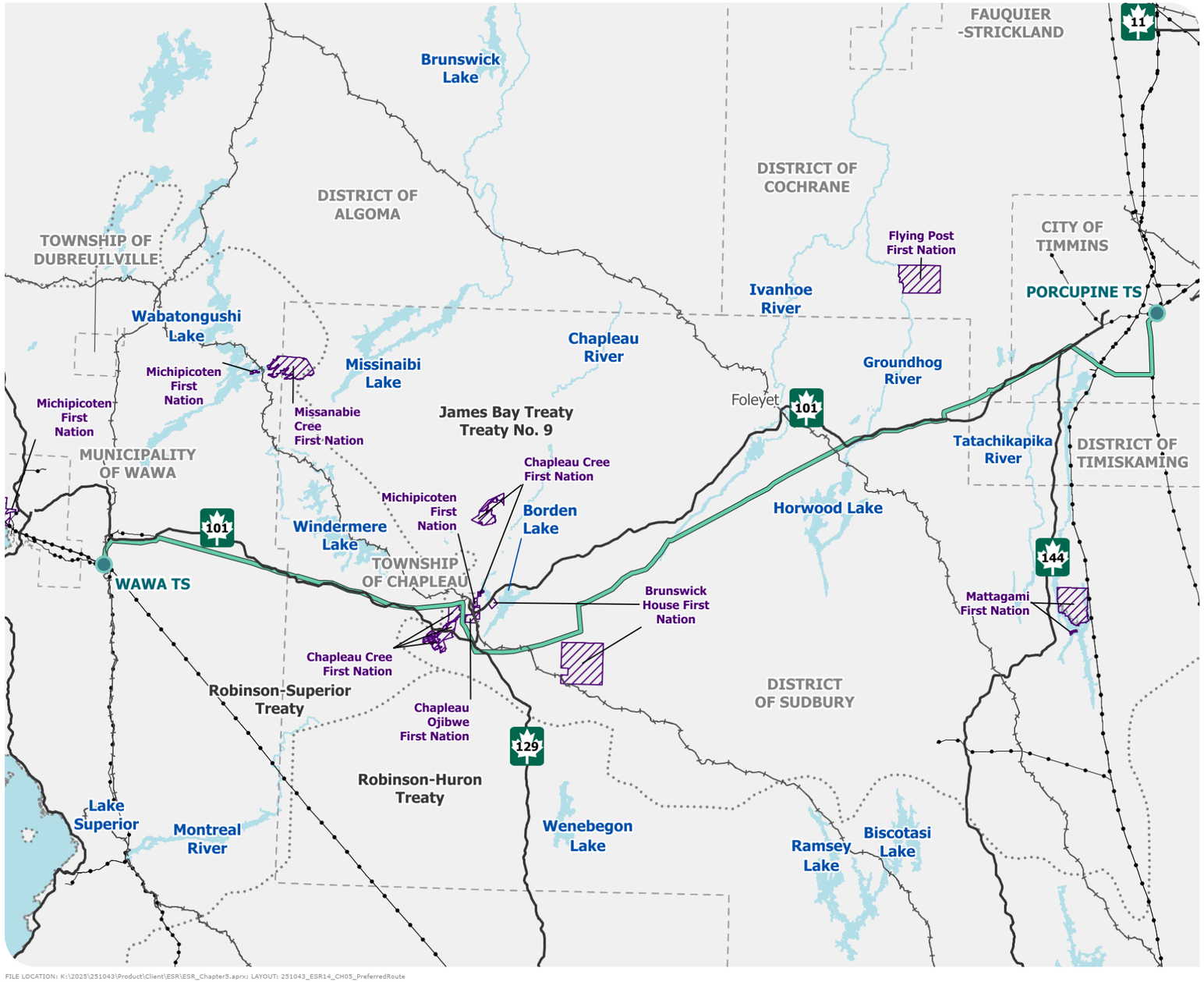
Socio-Economic Environment: Route C2 is preferred as it avoids properties with known/potential heritage value as well as commercial and industrial buildings. It also avoids more active mining sites and mining claims.

Natural Environment: Route C1 scored marginally higher compared to C2 in this category. Route C1 has less surface water features and wetlands within its ROW and a reduced area of potential SAR habitat disturbance than Route C2. However, Route C2 extends through an area with fewer designated natural areas and has a lower density of incompatible vegetation within its ROW.

Indigenous Culture, Values, and Land Use: Route C1 is preferred for this category due to its greater avoidance of moose habitat and fewer interactions with surface water features. It is noted that the additional area of moose habitat within the ROW of Route C2 is relatively small compared to the area avoided through the identification of Route B3.

Technical and Cost: This category favors Route C2, largely due to constructability and in particular, flexibility for tower placement. Route C2 also impacts less properties and includes less crossings of existing transmission lines.

Figure E-2: Preferred route



WAWA TIMMINS POWER LINE

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Preferred Route

FIGURE E-2

- Existing Transformer Station (TS)
- Preferred Route

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

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FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_ChapterS.aprx; LAYOUT: 251043_ESR14_CH05_PreferredRoute

Environmental inventory, potential effects and mitigation measures

The ESR provides a comprehensive look at the existing conditions within the PSA and LSA of all alternative routes. This baseline information was gathered through extensive desktop reviews and field surveys conducted between April 2025 and October 2026. The findings of this inventory inform the assessment of potential Project effects and the development of measures to avoid, minimize, or compensate for them. The assessment covers a wide range of natural, socio-economic, and cultural factors, and concludes with an analysis of the Project's cumulative effects. The full effects assessment can be found in Chapter 7 of the ESR. For this Executive Summary, a small collection of the effects and their associated mitigation measures has been compiled in the following subsections.

Forestry resources

The PSA contains and intersects six productive Forest Management Units (FMUs). Forestry resource uses within these areas involve a variety of land users, including:

- Tenure holders responsible for long-term planning, and licence holders, including both long-term Sustainable Forest Licence (SFL) holders and short-term Forest Resource Licence (FRL) operators;
- Private landowners (holding "patent" land); and
- Crown land lessees (such as mines or commercial tourism).

Potential effects: The Project has the potential to affect the availability and access of forestry resources along the preferred route. The Project ROW intersects approximately 161.6 ha of land where timber harvesting is planned within the 10-year horizon of the respective Forest Management Plans (FMPs), as well as eight mapped forestry roads. Construction activities may temporarily reduce or limit access to certain portions of existing forestry areas for landowners, lessees, and licence holders, particularly within the Project ROW. Additionally, traffic control may cause periodic, short-term delays for forestry road users. During operations, ongoing vegetation management will occur

within the ROW, permanently altering previously forested areas to maintain safe and reliable power delivery.

Mitigation measures: Hydro One will coordinate its work to minimize disturbances to forestry operations and access. Affected landowners, lessees, SFL holders, and Partner First Nations will be notified prior to construction, and activities will be coordinated with tenure and licence holders through ongoing engagement. To limit the footprint of new access roads and trails, existing road and trail infrastructure will be used where practical. Hydro One will review planned harvest allocations from approved FMPs to coordinate vegetation removals for the ROW and temporary land uses, such as construction camps and laydown yards. Inconsistencies between licences, permits, and plans will be resolved prior to construction through engagement with municipal, provincial, and federal agencies. Where applicable, crossing and third-party agreements will be established, and ongoing communication with interest holders, licence holders, and other forestry resource land users will continue through operations to address road use agreements.

With the effective implementation of mitigation measures, net effects to forestry resources are expected to be minimized.

Mineral resources

The LSA contains several mineral and aggregate resources and associated operations, including four active aggregate permits, three active mining permits, and one aggregate extraction area. The Project ROW intersects with approximately 140.4 hectares (ha) of active mining sites and approximately 1.2 ha of an aggregate extraction area. These resource areas involve various stakeholders, including private landowners, lessees, licence holders, and claim holders operating within existing mines, aggregate pits, and extraction areas.

Potential effects: The Project has the potential to affect the availability and access of mining and aggregate resource operations along the preferred route. During construction, activities such as site preparation, clearing, infrastructure construction, structure erection, and equipment transportation may temporarily reduce or limit access for local land users. Project-related traffic increases, temporary road restrictions, and

intermittent short-term road closures, such as those required for cable stringing, could cause localized delays and necessitate detours within the PSA and LSA. During operations and maintenance, ongoing activities including access road maintenance, periodic infrastructure inspections, and vegetation management along the ROW may result in rare, localized access restrictions near active work areas.

Mitigation measures: Hydro One will coordinate its activities to minimize disturbances to mineral resource operations and maintain user safety. Affected landowners, lessees, licence holders, and claim holders will be notified prior to the start of construction to minimize disruptions to their activities, and relevant crossing or third-party agreements will be finalized beforehand. Inconsistencies between legal approvals, permits, or plans will be resolved through inter-agency consultation, and interest holders will be consulted to identify and address specific concerns. To limit disturbances from the development of new access infrastructure, the Project will utilize existing roads and trails where practical. Furthermore, construction and operational activities will be actively coordinated with mineral resource land users, tenure holders, and claim holders through ongoing engagement to incorporate feedback where possible.

With the effective implementation of mitigation measures, the net effects to mineral resource operations are expected to be minimized.

Cultural heritage resources

The PSA contains areas of archaeological potential as well as potential BHRs and CHLs. A Stage 1 Archaeological Assessment (AA) (**Appendix C-1**) determined that the majority of the general Project area has archaeological potential. Additionally, a Cultural Heritage Existing Conditions (CHEC) report (AECOM, 2026b) identified seven potential CHLs and one potential BHR within the PSA of the preferred route. These resources include three railways (potential CHLs), three rivers (Ivanhoe, Groundhog, and Mattagami Rivers; potential CHLs), one provincial park (The Shoals Provincial Park; potential CHL), and one camp (Kamp Kinniwabi; potential BHR).

Potential effects: The Project has the potential to affect archaeological sites, BHRs, and CHLs during construction. Ground-disturbing activities could disturb or destroy previously undocumented archaeological resources in areas identified as having

archaeological potential. A Preliminary Impact Assessment (PIA) (AECOM, 2026c) determined that the three potential river CHLs may face direct impacts, as hydro towers and access roads could be constructed within 100 m of their banks. The Shoals Provincial Park is anticipated to experience indirect adverse impacts from tree and natural feature removals, and both the park and the three river CHLs will require construction access roads that constitute potential impacts. No impacts are anticipated for the three railways or Kamp Kinniwabi.

Mitigation measures: Hydro One will plan its activities to avoid and minimize adverse effects on cultural heritage resources. A Stage 2 AA will be completed by a licensed consultant archaeologist prior to any ground-disturbing activities within areas of archaeological potential, in accordance with Ministry of Citizenship and Multiculturalism (MCM) Standards and Guidelines (2011) and with the active participation of interested Indigenous communities. If required, Stage 3 and/or 4 AAs will be conducted. In the event of an unexpected archaeological find, all alteration of the site must cease immediately under Section 48(1) of the *Ontario Heritage Act*, and a licensed archaeologist will be engaged. If human remains are discovered, work will stop immediately, and the police, coroner, and the Registrar of Cemeteries will be notified under the *Funeral, Burial and Cremation Services Act* (2002), with immediate notification to relevant Indigenous communities if the remains are of Indigenous origin.

To protect potential BHRs and CHLs, the Project will maintain a minimum 100 m setback from the banks of the Ivanhoe, Groundhog, and Mattagami Rivers where feasible. If avoidance is not possible, a Cultural Heritage Evaluation Report (CHER) and subsequent Heritage Impact Assessment (HIA) will be completed during detailed design. A Landscape Plan for the intersection with The Shoals Provincial Park will be coordinated with Indigenous communities, ecological specialists, and regulatory agencies, and the park's memorial cross features will be mapped for continued avoidance. Staging and laydown areas will be located in previously disturbed areas where feasible and restored to pre-construction conditions post-construction. Temporary construction access roads near the rivers and the provincial park will be removed and restored post-construction in compliance with natural heritage reports. Any proposed ROW realignments will be reviewed by a qualified Cultural Heritage Specialist. Known

and potential resources will be integrated into the Project's Environmental Management System (EMS) for crew awareness. Hydro One will continue ongoing engagement with Indigenous communities to mitigate impacts to traditional land use areas.

With the effective implementation of mitigation measures, including additional archaeological investigations and heritage evaluations where required, no net effects on cultural heritage and archaeological resources are predicted.

Land use, communities, and technical considerations

The preferred route traverses the Township of Chapleau, the City of Timmins, and the unorganized districts of Algoma, Sudbury, Cochrane, and Timiskaming. The PSA primarily consists of Crown land (including General Use and Enhanced Management Areas) and crosses provincial parks and conservation reserves. Although energy transmission is supported by provincial growth plans and local Official Plans, the Project intersects various land use designations, sensitive visual receptors, local transportation corridors, and areas used for business and recreation.

Potential effects: Project activities have the potential to disrupt local businesses, land use, and community resources across all phases. During construction, transient noise and vibration (from grading, structure assembly, and implosive splicing) may disturb residents and cause wildlife to temporarily avoid the area. Waste could attract bears or other wildlife to the construction area if not managed properly. Recreational activities, such as ATVing, snowmobiling, hunting, fishing, and trapping, as well as remote tourism lakes, may experience temporary access disruptions, loss of tranquility, and altered visual landscapes. Operations-phase vegetation management will permanently alter furbearer habitat, and new access roads may reduce the remoteness of trapping areas while increasing general public access. Transportation and infrastructure crossings (including Highways 101 and 129, three rail lines, and proximity to local aviation sites) will experience temporary disruptions, localized wear, and short-term closures during conductor stringing. Operational noise will remain minimal except during severe weather and at the expanded Wawa and Porcupine TS yards, where new 500 kV transformers will introduce additional noise. No adverse effects are predicted from electric and magnetic fields.

Mitigation measures: Through ongoing coordination and applying best practices, Hydro One will minimize impacts on communities, businesses, and infrastructure. Business and recreational trail access will be maintained where practical, and construction areas will be kept clear of mud, debris, and wildlife-attracting waste. To limit the development of new corridors, existing access roads and trails will be prioritized. Hydro One will coordinate closely with municipal, provincial, and federal authorities to acquire all necessary permits and crossing agreements. Conductor stringing across highways will utilize rider poles and temporary rolling closures to ensure public safety. Noise studies and modeling will be conducted during detailed design for the TS expansions, and noise and vibration will be mitigated by adhering to the Ministry of the Environment, Conservation and Parks (MECP) guidelines. To accommodate compatible future developments, Hydro One will utilize established joint-review processes for proposals adjacent to the ROW.

With the effective implementation of mitigation measures, net effects to land use, communities, and technical considerations are expected to be minimized.

Indigenous lands and interests

While the ROW does not cross Indigenous reserve lands, the PSA of the preferred route intersects the Chapleau Cree Fox Lake reserve, and the entire ROW crosses the traditional territory of several First Nations. Hydro One is committed to developing and maintaining relationships of mutual respect with these Indigenous communities, recognizing their unique, distinct legal, historical, and cultural significance. Throughout the consultation process, Partner First Nations have provided valuable input regarding culturally and historically significant features, including fish spawning habitats, key lakes and rivers, hunting, trapping, and harvesting areas, and culturally significant species. Partner First Nations also shared community Values mapping, which was used to guide Project planning while respecting confidentiality.

Additionally, Hydro One has discussed post-construction vegetation management with Partner First Nations in response to concerns regarding the use of herbicides. Current options include mechanical-only management and integrated vegetation management. Mechanical-only management uses physical methods such as hand cutting, brush

saws, chainsaws, and mowing equipment to remove unwanted vegetation. Integrated vegetation management uses physical methods to remove unwanted vegetation, combined with selective herbicide application. Hydro One has committed to not using herbicides unless it is jointly determined with the Partner First Nations to be appropriate in specific and defined circumstances. If Partner First Nations maintain their current position throughout the life of the Project, that commitment stands. Hydro One will continue to involve Partner First Nations in developing the post-construction vegetation management plans, including additional consideration for sensitive natural habitats.

Potential effects: The Project has the potential to affect Indigenous community interests and lands across all phases of development. Project activities could impact geographically defined areas that support current or past traditional uses, such as the harvesting of wildlife, fish, or plants, as well as sites of spiritual or cultural significance. Additionally, construction and ground-disturbing activities carry the potential to affect undocumented archaeological resources or heritage features of Indigenous origin.

Mitigation measures: Hydro One will consult and engage with Indigenous communities throughout the lifecycle of the Project to mitigate adverse effects on community interests. Specific mitigation measures for identified confidential community Values will be discussed and agreed upon directly between the respective Partner First Nations and Hydro One, with additional mitigations explored if new values are identified early in the detailed design stage. To support active participation, Hydro One and its consulting archaeologists and biologists will work with interested communities to include Indigenous monitors in future archaeological and natural environment fieldwork. Partner First Nations were also provided opportunities to review the findings of archaeological field surveys, AA reports, and the draft ESR prior to public release so that their feedback could be incorporated. In the event that undocumented archaeological resources or human remains are discovered, protocols under the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act* will be strictly followed, and affected Indigenous communities will be immediately contacted if the remains are of Indigenous origin. Lastly, Hydro One will work with its construction contractor to identify opportunities to safely involve Indigenous communities in environmental monitoring during active construction.

Through ongoing engagement, consultation, and the implementation of these mitigation measures, net effects to Indigenous lands and interests are expected to be minimized.

Natural environment resources

The natural environment inventory indicates the PSA is characterized by a remote, largely forested landscape dominated by Precambrian bedrock and till. The preferred route was planned to minimize impacts on sensitive features, though it will intersect approximately 470 ha of Ministry of Natural Resources (MNR)-mapped wetlands (no Provincially Significant Wetlands) and cross numerous watercourses containing direct fish habitat. This includes overlapping with two designated lake trout management areas (Kinniwabi and Anjigami Lakes) and several vulnerable source water protection zones. Additionally, the route intersects the Tikamaganda Recreation Access Area, three conservation reserves, and four provincial parks (The Shoals, Ivanhoe Lake, Dana-Jowsey Lakes, and Groundhog River Waterway).

A key component of the inventory was the assessment of SAR and Significant Wildlife Habitat (SWH), utilizing a conservative approach consistent with former *Endangered Species Act* criteria. Confirmed SAR bird habitats include the Bank Swallow, Canada Warbler, and Eastern Whip-poor-will; potential or confirmed habitat for five migratory and resident SAR bat species was also identified. The PSA also contains confirmed SWH, including Moose Late Winter and Aquatic Feeding Areas, Bald Eagle and Osprey nesting habitats, and confirmed habitats for species of conservation concern such as the Black Tern, Common Nighthawk, and Lake Sturgeon, alongside rare tree types like Black Ash and Red and White Pine.

Potential effects: The Project will require the permanent removal of approximately 2,083 ha of incompatible upland vegetation within the ROW, resulting in a long-term transition from forest to low-growing, compatible shrub or meadow communities. Construction activities may temporarily affect surface water quality and quantity through sediment runoff, soil rutting, localized groundwater dewatering, and transient noise and vibration. Riparian vegetation removal could also reduce shading over fish habitats. Additionally, construction presents risks of accidental spills, waste and excess soil

generation, and the potential spread of invasive noxious weeds (such as Bull Thistle, Canada Thistle, and Spotted Knapweed).

Mitigation measures: To protect aquatic habitats and surface water, Hydro One will utilize existing access infrastructure where practical, implement erosion and sediment controls, stabilize disturbed soils, and restrict in-water activities to protective timing windows. Spills and waste will be managed through dedicated Emergency Response Plans and Ontario Regulation 406/19 compliance, while noise and emissions will be minimized through equipment maintenance and Global Positioning System (GPS) routing optimization. For SAR and SWH, Hydro One will consult with Environment and Climate Change Canada (ECCC) and the MECP for required registrations and permits. Staging areas will use previously disturbed lands where possible. To offset environmental effects of the Project, a long-term Biodiversity Initiative will be implemented with a focus on habitat restoration, species protection, and long-term ecological resilience.

Cumulative effects assessment

The Project's potential cumulative effects were assessed by considering its effects in combination with other known projects and resource-sector activities in the LSA. The cumulative effects assessment (CEA) concluded that while there may be some temporary, localized cumulative effects during construction (e.g., traffic and dust), the Project-specific mitigation measures outlined in the ESR are adequate.

The CEA determined that the Project, in conjunction with other nearby undertakings, is not expected to result in a significant cumulative impact on the environment or the community. Temporary construction-related impacts can be coordinated with other proponents to minimize disruption.

Effects monitoring

The Project's effects monitoring program is designed to confirm that actual environmental effects align with predicted outcomes, verify the effectiveness of mitigation measures, and ensure compliance with environmental commitments. An

on-site Environmental Specialist will be assigned for the duration of construction to provide guidance and oversight.

A Project-specific Environmental Management Plan (EMP) will be prepared before construction. This plan will serve as a guide for construction crews, summarizing legislative requirements, environmental commitments from the ESR, and specific mitigation measures resulting from the application of those commitments to the Project construction plans. It will also outline the monitoring process and procedures for post-construction restoration.

Project lifecycle and schedule

Hydro One is committed to continued engagement with Partner First Nations, stakeholders, rights-holders, agencies, and directly impacted landowners throughout the Project lifecycle.

Design phase

Following completion of the Class EA process, Project design will continue to advance through subsequent engineering phases. The final design will be informed by field investigations and engineering studies, including geotechnical investigations, and will be completed in accordance with applicable industry standards, regulatory requirements, and design criteria for Transmission Facilities (TF), including consideration of site-specific environmental conditions and applicable severe weather loading requirements.

Construction phase

Construction of the transmission line is planned to begin in late 2027, with an anticipated in-service date of 2030. Construction activities will include site preparation, foundation installation, assembly of new transmission structures, and stringing of conductors. Upon completion, all disturbed areas will be cleaned and restored. Construction will be guided by Hydro One's standards and the Project-specific EMP.

Draft ESR comment period

Hydro One is providing a 30-day comment period, from November 12, 2026, to December 12, 2026. Comments regarding the draft ESR are to be submitted to Hydro One no later than 4:30 P.M. on December 12, 2026, and must be addressed to:

Andrew Roberts, Manager Environmental Services

Hydro One Networks Inc.

483 Bay Street, North Tower,

14th Floor, Toronto, ON, M5G 2P5

Comments can also be submitted by calling Community Relations at **1-877-345-6799** or emailing **Community.Relations@HydroOne.com**

The draft ESR is available electronically on the Project website: **HydroOne.com/WawaTimmins**. Printed copies of the draft ESR are also available at the following locations during business hours:

Timmins Public Library	**Foleyet Nursing Station**	**Chapleau Public Library**	**Wawa Public Library**
320 2nd Ave, Timmins, ON P4N 1B5 (705) 360-2623	125 Sherry Ave, Foleyet, ON P0M 1T0 (705) 899-2053	20 Pine Street West, Chapleau, ON P0M 1K0 (705) 864-0852	40 Broadway Ave, Wawa, ON P0S 1K0 (705) 856-2244 ext. 290

Comments received by Hydro One during the draft ESR comment period will be recognized, considered, addressed and documented. The ESR will be finalized for the proposed Project in accordance with the Class EA. Upon completion of the EA process, the final ESR will be filed with the MECP, and will be made available on the Project website (HydroOne.com/WawaTimmins). The Project will be considered accepted to proceed as outlined in the ESR.

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

Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, ON M7A 2J3
Email**:** minister.mecp@ontario.ca

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

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Acronyms and abbreviations

Acronym or abbreviation	Definition
7NTLP	Seven Nations Transmission Line Partnership
AA	Archaeological Assessment
AECOM	AECOM Canada ULC
ANSI	Areas of Natural and Scientific Interest
AOC	Area of Concern
ARA	Archaeological Research Associates Ltd.
ASTM	American Society for Testing and Materials
AQHI	Air Quality Health Index
ATR	Addition to Reserve
ATV	All-Terrain Vehicle
BHR	Built Heritage Resource
BMA	Bear Management Area
CAO	Chief Administrative Officer
CAZ	Contaminant Attenuation Zone
CC	Coefficient of Conservatism
CCME	Canadian Council of Ministers of the Environment
CEA	Cumulative Effects Assessment
CFA	Capacity Funding Agreement
CHEC	Cultural Heritage: Existing Conditions Report
CHL	Cultural Heritage Landscape
CHVI	Cultural Heritage Value or Interest
CIS	Community Information Session
Class EA	Class Environmental Assessment
Class EA for TF	Class Environmental Assessment for Transmission Facilities
CLI	Canada Land Inventory
CLUPA	Crown Land Use Policy Atlas

Acronym or abbreviation	Definition
cm	Centimetre
CME	Canadian Manufacturers & Exporters
CN Rail	Canadian National Railway
CNWA	*Canadian Navigable Waters Act*
CO	Carbon Monoxide
COH	Community Open House
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPKC	Canadian Pacific Kansas City Limited
CSA	Canadian Standards Association
CWS	Canadian Wildlife Services
DFO	Fisheries and Oceans Canada
Dillon	Dillon Consulting Limited
DS	Distribution Station
DTC	Duty to Consult
EA	Environmental Assessment
EA Act	*Environmental Assessment Act*
EAB	Environmental Assessment Branch
EASR	Environmental Activity and Sector Registry
ECA	Environmental Compliance Approval
ECCC	Environment and Climate Change Canada
ECI	Early Contractor Involvement
eDNA	Environmental Deoxyribonucleic Acid
ELC	Ecological Land Classification
EMA	Enhanced Management Area
EMF	Electromagnetic Field
EMP	Environmental Management Plan
EMS	Environmental Management System
EPC	Engineering, Procurement, and Construction
ESA	*Endangered Species Act*

Acronym or abbreviation	Definition
ESR	Environmental Study Report
EV	Electric Vehicle
FAFNLMA	Framework Agreement on First Nation Land Management Act
FMP	Forest Management Plan
FMU	Forest Management Unit
FMZ	Fisheries Management Zone
FRI	Forest Resources Inventory
FRL	Forest Resource Licence
GIS	Geographic Information System
GPS	Global Positioning System
Growth Plan	The Growth Plan for Northern Ontario
ha	Hectare
HIA	Heritage Impact Assessment
HVA	Highly Vulnerable Aquifer
Hydro One	Hydro One Networks Inc.
IA	Impact Assessment
IAAC	Impact Assessment Agency of Canada
IBA	Important Bird Area
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IEPP	Indigenous Engagement Participation Plan
IESO	Independent Electricity System Operator
IK	Indigenous Knowledge
IO	Infrastructure Ontario
IVM	Integrated Vegetation Management
IPZ	Intake Protection Zone
IR	Indian Reserve
ISC	Indigenous Services Canada
km	Kilometre

Acronym or abbreviation	Definition
Km/hr	Kilometres per hour
kV	Kilovolt
LiDAR	Light Detecting and Ranging
LIO	Land Information Ontario
LSA	Local Study Area
m	Metre
Mattagami Region SPP	Mattagami Region Source Protection Plan
MBCA	*Migratory Birds Convention Act*
MCBC	Missanabie Cree Business Corporation
MCDA	Multi-Criteria Decision-Making Analysis
MCM	Ministry of Citizenship and Multiculturalism
MECP	Ministry of the Environment, Conservation and Parks
MEDJCT	Ministry of Economic Development, Job Creation and Trade
MEM	Ministry of Energy and Mines
MNEDG	Ministry of Northern Economic Development and Growth
MNDMNF	Ministry of Northern Development, Mines, Natural Resources and Forestry
MNR	Ministry of Natural Resources
mm	Millimetre
MMAH	Ministry of Municipal Affairs and Housing
MP	Member of Parliament
MPP	Member of Provincial Parliament
MRCA	Mattagami Region Conservation Authority
MTCG	Ministry of Tourism, Culture and Gaming
MTO	Ministry of Transportation
MOU	Memorandum of Understanding
NDA	Non-disclosure agreement

Acronym or abbreviation	Definition
NERC	North American Electric Reliability Corporation
NGO	Non-government organization
NHIC	Natural Heritage Information Centre
NO_2	Nitrogen Dioxide
NoC	Notice of Commencement
NPP	Navigation Protection Program
NRCan	Natural Resources Canada
NWES	Northwinds Environmental Services
O. Reg.	Ontario Regulation
O_3	Ozone
OCAP	Ownership, Control, Access and Possession
OEB	Ontario Energy Board
OFMF	Ontario Fur Managers Federation
OFSC	Ontario Federation of Snowmobiles Club
OIC	Order-in-Council
OKT LLP	Olthuis Kleer Townshend
OMAFA	Ministry of Agriculture, Food and Agribusiness
OP	Official Plan
OPG	Ontario Power Generation
OPP	Ontario Provincial Police
OPSS	Ontario Provincial Standard Specifications
PDAC	Prospectors and Development Association of Canada
PDWT	Prescribed Drinking Water Threat
PEC	Project Engagement Coordinator
PIA	Preliminary Impact Assessment
$PM_{2.5}$	Particulate Matter
PO	Postal Office
PPS	Provincial Planning Statement

Acronym or abbreviation	Definition
PSA	Project Study Area
PSW	Provincially Significant Wetland
PTTW	Permit to Take Water
PWQMN	Provincial Water Quality Monitoring Network
RFP	Request for Proposal
RoC	Record of Consultation
ROW	Right-of-way
SAR	Species at Risk
SARA	*Species at Risk Act*
SCA	*Species Conservation Act*
SCC	Species of Conservation Concern
SFL	Sustainable Forest Licence
SGRA	Significant Groundwater Recharge Area
SO_2	Sulfur Dioxide
SPA	Source Protection Area
SPP	Source Protection Plan
SSSA	Station Siting Study Area
STATCOM	Static Synchronous Compensator
SVC	Static Volt-Ampere Reactive Compensator
SWH	Significant wildlife habitat
SWHTG	Significant Wildlife Habitat Technical Guide
SWP	Source Water Protection
TAC	Technical Advisory Committee
TC	Transport Canada
TF	Transmission Facilities
TS	Transformer station
the Project	Wawa Timmins Power Line
UTM	Universal Transverse Mercator
Valard	Valard Construction LP
Victor	Victor Energy Ltd.

Acronym or abbreviation	Definition
Villeneuve Construction	Villeneuve Construction Co Ltd
Wahkohtowin Development	Wahkohtowin Development GP Inc.
WPA	Wellhead Protection Area
°C	Degree(s) Celsius

1.0 Introduction

Hydro One Networks Inc. (Hydro One) is Ontario's largest electricity transmission and distribution service provider; energizing life in Ontario for over 110 years. In 2024, the Ministry of Energy and Mines (MEM)[1] identified that electricity demand in northeastern Ontario is anticipated to increase due to industrial expansion, community electrification, and economic development. To support this rapid growth and future electricity demand, Hydro One is proposing to construct a new, single-circuit 500 kilovolt (kV) transmission line approximately 305 kilometres (km) in length from Hydro One's Wawa Transformer Station (TS) near Wawa, Ontario to the Porcupine TS in Timmins, Ontario (**Figure 1-1**).

Hydro One is calling this undertaking the Wawa Timmins Power Line (the Project). To support the new transmission line, the Project also includes the establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS.

In June 2025, Hydro One commenced a Class Environmental Assessment (Class EA) for the Project. Hydro One retained Dillon Consulting Limited (Dillon) to support the Class EA.

The Project is subject to the Class Environmental Assessment for Transmission Facilities (Class EA for TF) (Hydro One, 2024), an approved planning process under the *Environmental Assessment Act* (EA Act). The Class EA for TF is designed for proponents to characterize the existing environment, assess potential environmental effects and mitigation, identify and evaluate alternatives, conduct consultation, and document study findings. This draft Environmental Study Report (ESR) has been prepared in accordance with the Class EA for TF.

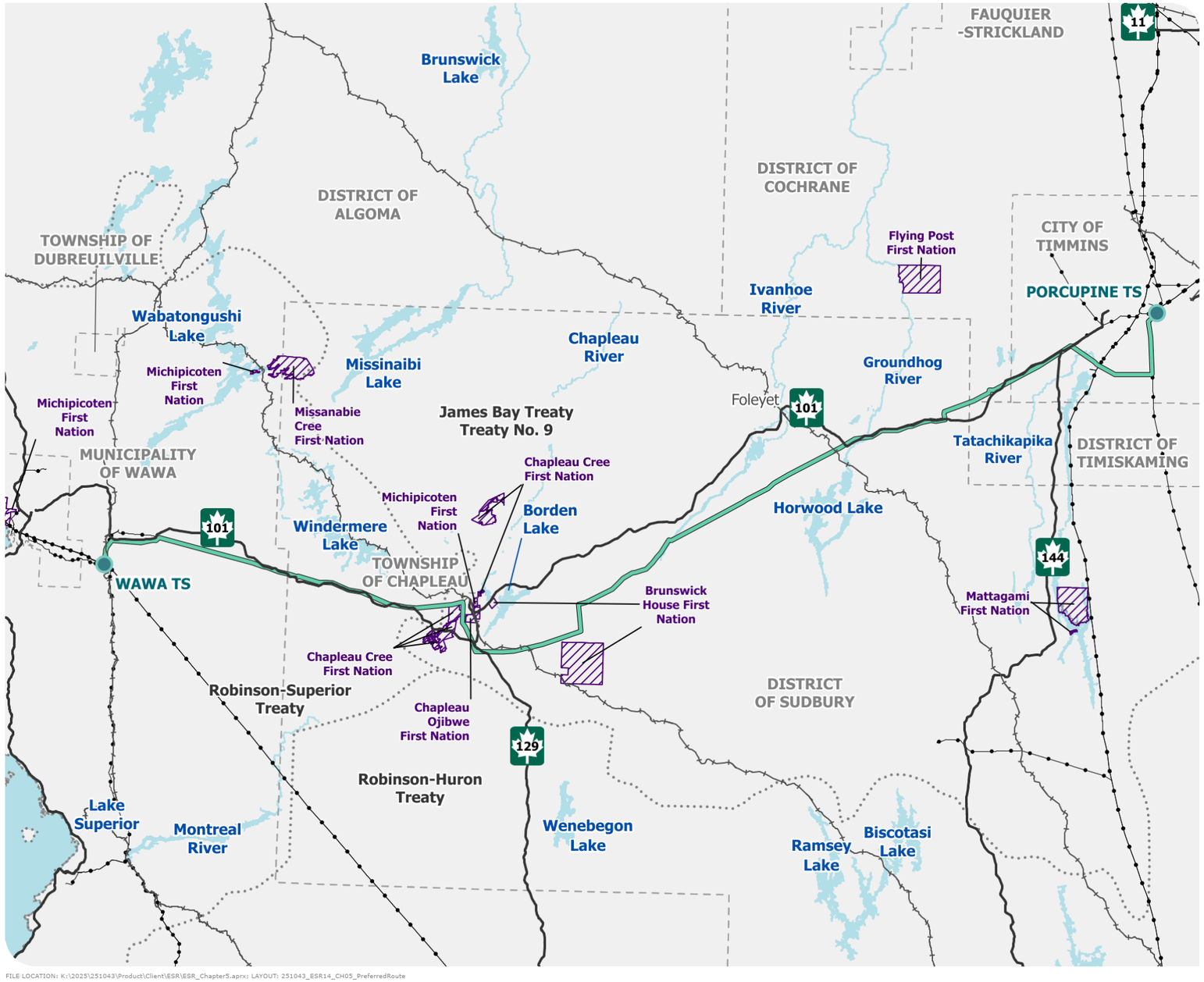
[1] MEM was referred to as the Ministry of Northern Development and Mines in 2024. Provincial Ministries are referred to by their current names throughout this report, unless otherwise specified.

This draft ESR describes the Class EA process that was undertaken for the proposed Project. The draft ESR:

- Summarizes existing conditions in the Local Study Area (LSA) and Project Study Area (PSA), which are 500 metre (m) and 120 m buffers around each of the alternative route centrelines, respectively;
- Documents consultation undertaken with Indigenous communities, government agencies, municipal staff and elected officials, interest groups, and members of the public about the Project;
- Documents the route identification and evaluation process conducted to select the preferred route;
- Identifies potential environmental effects associated with the Project; and
- Identifies potential avoidance, mitigation, and restoration measures to address these potential environmental effects.

Hydro One acknowledges that the Project is proposed on the ancestral lands of the Anishinaabe and Cree. Hydro One understands that First Nations have been here since time immemorial and are stewards of what many refer to as Turtle Island. We are all Treaty People and this Project is proceeding with a commitment to friendship, building meaningful relationships, and the pursuit of reconciliation.

Figure 1-1: Project location



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

Project Location

FIGURE 1-1

- Existing Transformer Station (TS)
- Preferred Route

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter5.aprx; LAYOUT: 251043_ESR14_CH05_PreferredRoute

1.1. Equity partnership model

In 2022, Hydro One announced an industry-leading Equity Partnership Model that offers First Nations the opportunity to buy in to a 50 percent equity stake in all new, large-scale capital transmission line projects with a value exceeding $100 million. The Project is among the first projects to be advanced under this model. Nine First Nations, referred to as Partner First Nations, have been identified as equity partners for the Project:

- Brunswick House First Nation;
- Chapleau Cree First Nation;
- Chapleau Ojibwe First Nation;
- Flying Post First Nation;
- Matachewan First Nation;
- Mattagami First Nation;
- Michipicoten First Nation;
- Missanabie Cree First Nation; and
- Taykwa Tagamou Nation.

Discussions about the structure of the equity partnership commenced in February 2025, prior to the formal commencement of the Class EA, through a series of meetings with the nine Partner First Nations. These early discussions introduced the partnership model, began to explore how the Partner First Nations could organize collectively to advance their interests, and provided an opportunity for communities to ask questions and share their expectations for the partnership.

1.2. Need for the undertaking

In October 2022, the Independent Electricity System Operator (IESO) – the agency responsible for monitoring electricity demand and forecasting future needs in the province – identified the need for added capacity in Ontario's northeast. To address this need, the IESO recommended transmission reinforcements, including reinforcements between the Wawa TS and Porcupine TS.

On November 28, 2024, Hydro One received an Order-in-Council (OIC) to have the Project incorporated into Hydro One's transmission license and designated the Project as a priority transmission project.

In December 2024, the MEM posted a decision declaring the Project a priority project under s. 96.1(1) of the *Ontario Energy Board Act*, 1998, with a recommended in-service date of 2030. The decision also designated Hydro One as the transmitter of the Project, which requires Hydro One to undertake development work and seek approvals to construct the Project (**Appendix A**). Following this decision, Hydro One began engagement with Indigenous communities as described in **Section 3.11.5**.

The purpose of the new single-circuit 500 kV transmission line is to:

- Improve reliability for existing and future electricity needs in the Timmins area;
- Reinforce the transmission system in northeast Ontario and support the growing electricity demands of communities, industries, businesses, and residents; and
- Strengthen the connection between the northeast and northwest zones and improve overall resiliency of the northern Ontario transmission network.

In addition to improving electricity reliability, the Project is an important piece of enabling infrastructure that will support future economic growth, resource development, and prosperity for communities across northern Ontario.

1.3. Description of the undertaking

The undertaking will involve the installation of a new single-circuit 500 kV transmission line and associated infrastructure (e.g., towers, access roads) and the establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS. The proposed transmission line will be initially operated at 230 kV, increasing as required to support northern Ontario's energy needs. Upon the successful completion of the Class EA process and receipt of subsequent required approvals, construction would begin. Construction is planned to begin in summer 2028, with a planned in-service date of 2030.

1.4. Alternatives to the undertaking

The Class EA for TF requires identification and evaluation of alternatives to the undertaking. “Alternatives to” the undertaking are functionally different approaches to addressing the need for the undertaking.

Alternatives to the undertaking must be reasonable from a technical, economic, and environmental perspective and must fall within the mandate of the proponent. It is understood that companies whose operating licences (i.e., as granted by the Ontario Energy Board [OEB]) are limited to assessment of transmission alternatives cannot, for example, assess generation as an alternative to Transmission Facilities (TFs).

This Project resulted from:

- A recommendation of the IESO from a planning study for electricity needs in the broader area, as documented in the report, “Need for Northeast Bulk System Reinforcement” (October 2022); and
- The Environmental Registry of Ontario proposal by the MEM to declare the Project as a provincial priority project and designate Hydro One as the transmitter.

In such cases, the transmitter will accept the recommendations of an independent agency as a starting point for the Class EA process and will not revisit alternatives considered and rejected by the planning process (e.g., generation alternatives and other transmission alternatives). The following summarizes the conclusions of the IESO report regarding the alternatives to the undertaking that were considered to address the identified need:

- Alternative 1: Do nothing;
- Alternative 2: Non-wires alternative; and
- Alternative 3: Wires options alternative.

Alternative 1: Do Nothing

The “do nothing alternative” is an alternative to the undertaking that must be considered.

The “do nothing alternative” would result in the inability to reliably supply the forecasted load growth due to:

- The significant increase in the forecasted electricity demand in the Timmins area and northeastern Ontario; and
- The reliability issues identified for the existing transmission system in northeastern Ontario (IESO, 2022).

Furthermore, this alternative would not address current limitations on the ability for power to be transmitted to the broader network. For example, if a power plant in the area generates more electricity than its immediate area can use, the current network cannot easily deliver that excess power to other regions. Therefore, the “do nothing alternative” is not considered to be a feasible option.

Alternative 2: Non-Wires Alternative

The IESO report considered several “non-wires alternatives,” which included generation options such as natural gas, solar, and wind. After an assessment by the IESO of the capabilities and cost of potential resources, natural gas was found to be the most suitable non-wires alternative. An economic analysis was conducted to compare the preferred non-wires alternative (natural gas) to the preferred wires option. Ultimately, the wires options alternative was determined to be more effective and cost-efficient.

Alternative 3: Wires Options Alternative

The IESO report assessed various wires options and combinations of reinforcements. A screening approach was used, which included a technical assessment of the possible combinations of reinforcements. The options that could address the identified reliability needs were shortlisted for further consideration. The shortlisted options were then evaluated according to technical performance, cost-effectiveness, and implementation (including feasibility, environmental impact, and stakeholder feedback).

Out of the four wires options assessed by the IESO, Option 2B (which includes supply to Timmins and Wawa) was found to be the most cost effective and technically feasible option to meet the identified system needs in a timely manner.

The Project is a component of the preferred Option 2B as identified by the IESO.

1.5. Alternative routes

Prior to initiating the Class EA process, the Hydro One Project team completed a preliminary assessment to identify alternative routes for the new transmission line in consultation with Partner First Nations on the Project. This assessment involved review of relevant conditions and constraints related to:

- Indigenous Culture, Values, and Land Use;
- Natural Environment;
- Socio-Economic Environment; and
- Technical and Cost Considerations.

Known constraints and opportunities (including paralleling existing linear infrastructure or making use of existing easements and/or rights-of-way [ROWs]) were identified and mapped. The alternative routes, including the process used to identify and refine them, are described further in **Section 5.2**.

Each alternative route has been studied and evaluated to select the preferred route for the Project.

1.6. Approval process and regulatory requirements

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

1.6.1. Class environmental assessment process

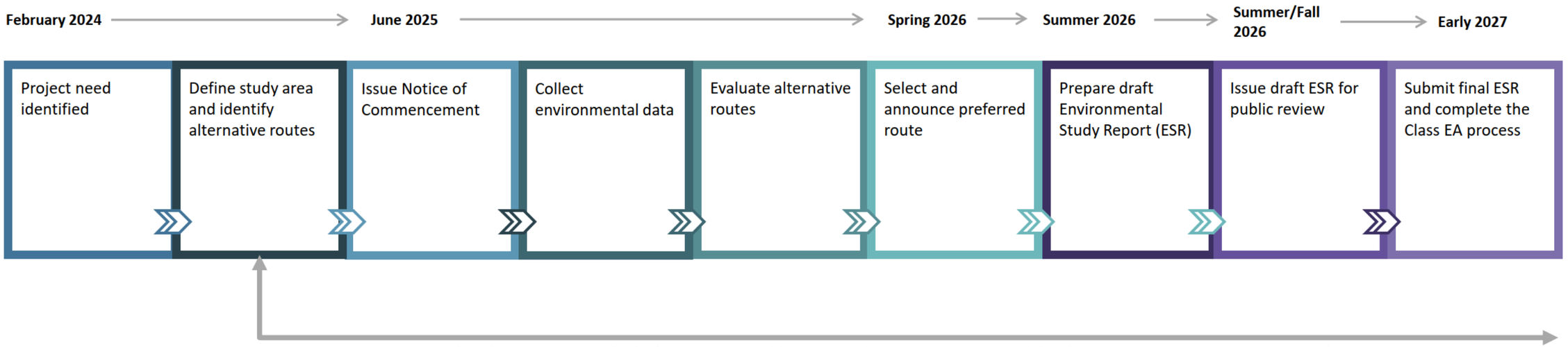
This draft ESR has been prepared in accordance with the Class EA for TF (Hydro One, 2024); an approved planning process under the EA Act. Components of the process include:

- Establish the need (**Section 1.2**);
- Identify and evaluate “alternatives to” the undertaking (**Section 1.4**);
- Define the study areas (**Section 2.0**);
- Issue an initial notification (**Section 3.4**);
- Conduct an environmental inventory (**Section 4.0**);

- Provide a description of the potential environmental impacts (positive and negative) (**Section 7.0**);
- Identify and evaluate alternative routes (**Section 5.0**);
- Select the preferred route (**Section 5.5**) and prepare the draft ESR;
- Issue the Notice of Completion and the draft ESR for public review and comment (**Section 3.20**);
- File the final ESR and Class EA Statement of Completion with the Ministry of the Environment, Conservation and Parks (MECP) and proceed with the undertaking (**Section 3.13**); and
- Conduct consultation and engagement throughout the process (**Section 3.0**).

The Class EA process is illustrated in **Figure 1-2**.

Figure 1-2: Class environmental assessment process



Section 1.2 of the Class EA for TF (2024) sets out the types of projects to which the Class EA applies, which include:

1. Establishing a new or temporary transmission line that has a nominal operating voltage of greater than or equal to 115 kV and is greater than 2 km in length;
2. Refurbishing an existing transmission line that has a nominal operating voltage of greater than or equal to 115 kV and is greater than 2 km in length;
3. Establishing a new transmission station that has a nominal operating voltage of greater than or equal to 115 kV; and
4. Expanding an existing transmission station, where the expansion involves the acquisition of land and the transmission station has a nominal operating voltage of greater than or equal to 115 kV.

Section 1.3 of the Class EA for TF (2024) sets out four project categories that determine the level of detail of assessment and consultation required to evaluate a project or whether a project is exempt from the EA Act, which include:

1. Emergency Situations;
2. Projects Eligible for Exemption Subject to the Archaeological Screening Process;
3. Projects Eligible for Exemption Subject to the Class EA Screening Process; and
4. Projects Subject to the Full Class EA.

This Project meets the criteria for establishing a new transmission line that has a nominal operating voltage of greater than or equal to 115 kV and is greater than 2 km in length. The Project does not meet the eligibility for exemption from the Class EA process for emergency situations, archaeological screening, or Class EA Screening. Therefore, the Project is subject to a full Class EA in accordance with the Class EA for TF (2024).

Hydro One is issuing the Notice of Completion of this draft ESR, which advertises the report's availability for a 30 calendar day comment period. The Notice is being issued to Indigenous communities, municipal, provincial, and federal government officials and agencies, potentially affected and interested persons, and interest groups. The draft ESR will be available for public review and comment from November 12, 2026, until

December 12, 2026. Hydro One will make best efforts to respond and resolve issues raised by concerned parties during the draft ESR review period. Issues and their respective responses will be documented and summarized in the final ESR.

As outlined in Section 3.4.4 of the Class EA for TF (2024), a request may be made to the MECP for an order requiring a higher level of study (i.e., requiring a comprehensive EA approval before being able to proceed) or that conditions be imposed (e.g., requiring further studies), only on the grounds that the requested order may prevent, mitigate, or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. The MECP will not consider requests on other grounds.

A copy of this draft ESR is being placed on the Hydro One Project website and provided to the Environmental Assessment Branch (EAB) as well as the appropriate Regional EA Coordinator at MECP for filing. Once the final ESR and the Class EA Statement of Completion have been filed with MECP, the proposed Project will be considered acceptable and may proceed as outlined in the final ESR.

1.6.2. Other permits, licences, and approvals

In addition to meeting EA Act requirements, there are several permits, licences, and approvals that may be required for the Project as outlined in **Table 1-1**, **Table 1-2**, **Table 1-3**, and **Table 1-4**. If other permits are identified as required during future Project phases, Hydro One and/or the Engineering, Procurement, and Construction (EPC) contractor will work with the regulator to ensure compliance.

In addition to the notifications and engagements described in this draft ESR, Hydro One or its contractors will continue to contact the appropriate regulatory agencies to ensure that the proposed Project will meet the regulatory requirements prior to construction.

The proposed Project does not trigger a federal EA under the *Impact Assessment Act*, 2019.

As stated in Section 62(1) of the *Planning Act* (R.S.O. 1990, c. P. 13), “An undertaking of Hydro One Inc. that has been approved under the EA Act is not subject to this Act.” While the proposed Project is not subject to the *Planning Act* after completion of the Class EA, Hydro One will continue to work with the City of Timmins, the Municipality of

Wawa, and the Township of Chapleau during and after the Class EA process. Specifically, Hydro One will continue consultation with these municipalities regarding the design and potential effects of Project construction on local traffic and nearby communities, as needed.

Table 1-1: Potentially required federal permits, licences, and approvals

Permit, licence, or approval	Primary agency/party	Description
Nav Canada Land Use Assessment	Nav Canada	Required for the construction of the new transmission structures within 6 km of an aerodrome.
Transport Canada Aeronautical Assessment	Transport Canada (TC)	Required for the construction of new transmission structures within 6 km of an aerodrome.
Notice and/or Approval	TC	May be required for work on navigable waters as defined under the *Canadian Navigable Waters Act* (CNWA).
Notice of Work under the *Railway Safety Act*	TC	Required for crossing a federally regulated railway.
Leases or Crossing Agreements under the *Federal Real Property and Federal Immovables Act*	TC	Required for crossing federal roads, railways, or canals.
Use, Storage, Transportation of Explosives	Natural Resources Canada (NRCan)	Required for magazines, vehicles used for transportation of explosives, and activities related to storage of explosives in support of splicing.
Approvals and/or Permits under the *Species at Risk Act* (SARA), 2022	Environment and Climate Change Canada (ECCC) / Canadian Wildlife Services (CWS) – Fisheries and Oceans Canada (DFO)	May be required for planned works that might affect Species at Risk (SAR) and/or their habitat which are protected under the SARA.

Permit, licence, or approval	Primary agency/party	Description
***Fisheries Act* Authorization**	DFO	May be required for in-water construction works or works with potential releases that have potential to adversely affect fish or fish habitat.

Table 1-2: Potentially required provincial permits, licences, and approvals

Permit, licence, or approval	Primary agency/party	Description
Section 92 Leave to Construct	OEB	Required for the construction of the new transmission line.
Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR)	MECP	May be required for construction dewatering.
Air and Noise EASR	MECP	May be required for noise or air emissions sources at the TS near Wawa and at the Porcupine TS.
Industrial Sewage Works Environmental Compliance Approval (ECA)	MECP	May be required for the TS drainage systems for the TS near Wawa, for the Porcupine TS expansion, and for wastewater treatment systems at temporary construction camps.
Waste ECA	MECP	Required for the storage, transportation, and disposal of domestic and industrial wastes (including sewage) from temporary construction camps.
Air ECA	MECP	Required for isolated power generation at construction camps where a connection to grid service is not available.
Generator Registration Number	MECP	Required for hazardous and liquid industrial wastes generated during Project construction.

Permit, licence, or approval	Primary agency/party	Description
Permit for the Application of Pesticides[2]	MECP	May be required for application of herbicides for vegetation maintenance during operation and maintenance.
Authorization under the *Provincial Parks and Conservation Reserves Act*, 2006	MECP	Required to access provincial parks or conservation reserves for the inventorying, monitoring, or researching of values (e.g., life science, earth-science, cultural).
Work Permit under the *Provincial Parks and Conservation Reserves Act*, 2006	MECP	Required for vegetation clearing, construction of access roads (including associated water crossings), construction of the transmission line, or any other feature within the boundaries of a provincial park or conservation reserve.
Amendment to the *Provincial Parks and Conservation Reserves Act*, 2006	MECP	Required to amend the management direction for applicable provincial parks and conservation reserves.
Approvals and/or Permits under the *Species Conservation Act*, 2025 (SCA)	MECP	May be required for planned works that might affect SAR which are protected under the SCA.
Withdrawal Request under the *Mining Act*	MEM	Required to withdraw lands from prospecting and staking rights under the Act.
Archaeological Acceptance Letters	Ministry of Citizenship and Multiculturalism (MCM)	Archaeological assessment (AA) is required prior to undertaking new ground disturbance in areas with archeological potential.

[2] This permit is included as potentially required in the event herbicides are planned to be used. As outlined in **Section 6.3**, Hydro One has and will continue to discuss post-construction vegetation management with Partner First Nations in response to concerns regarding the use of herbicides.

Permit, licence, or approval	Primary agency/party	Description
Encroachment Permit	Ministry of Transportation (MTO)	Required for crossing a provincial highway ROW and to place, alter, or erect a power line or transmission line within 400 m of a controlled access highway.
Entrance Permit	MTO	May be required for new or modified entrances to a provincial highway for access roads.
Land Use Permit	MTO	Required for project assets to be located within MTO Permit Control Areas.
Sign Permit	MTO	Required for signage within 400 m of a provincial highway.
Crown Land Work Permit	Ministry of Natural Resources (MNR)	May be required for construction on/alteration to public lands.
Land Use Permit under the *Public Lands Act*, 1990	MNR	Required to provide Occupational Authority for the transmission line ROW and roads that are outside the transmission line ROW but within the protected area boundary. Also required for temporary supporting infrastructure such as construction camps, helipad/fly-yard areas, and laydown areas.
Work Permit under the *Public Lands Act*, 1990	MNR	Required for construction and improvement of roads, trails, and water crossings. Also required for work planned in-water or on shoreland on Crown land, and on private shoreland that directly affects public lands.

Permit, licence, or approval	Primary agency/party	Description
Various approvals under the *Public Lands Act*, 1990	MNR	Other authorizations may be required, including: • Travel permits for restricted roads; • Consents to deposit; • Letters of authorization; and • Memorandum of Understanding (MOU).
Road Maintenance Agreements under the *Public Lands Act*, 1990	MNR	Required for road responsibility and maintenance for roads required for the Project (Engagement in an MOU or a road maintenance agreement with the Crown, or agreements with existing MOU holders on Crown roads).
Road Maintenance Agreements under the *Crown Forest Sustainability Act*, 1994	MNR	Required with appropriate Sustainable Forest Licence (SFL) holder(s) for use of roads covered by a Forest Management Plan (FMP) that are under custodianship of an SFL holder.
Burn Permit under the *Forest Fires Prevention Act*, 1990	MNR	Required to burn materials from forest clearing.
Authorizations under the *Fish and Wildlife Conservation Act*, 1997 • **Fish Scientific Collectors Permit** • **Wildlife Scientific Collection Permit**	MNR	Required for the taking and transferring of fish or wildlife during construction.

Permit, licence, or approval	Primary agency/party	Description
Authorizations under the *Fish and Wildlife Conservation Act*, 1997 • **Authorization to Destroy/Take/Possess Nests or Eggs** • **Authorization to Interfere with/Destroy a Black Bear or Furbearing Mammal Den, Beaver Dam**	MNR	Required in the event Project construction/operation is anticipated to destroy the nests or eggs of birds, a beaver dam, or the den of a black bear or some furbearing mammals or interfere with a black bear in its den.
Authorizations or Notices under the *Fish and Wildlife Conservation Act*, 1997	MNR	Required to trap a nuisance beaver (Term Agent or Individual Authorization) or to possess a dead animal (Notice of Possession).
Permit under the *Lakes and Rivers Improvements Act*, 1990	MNR	Required for water crossings on private land.
Permits under the *Public Lands Act*, 1990 and *O. Reg 239/13: Activities on Public Lands and Shore Lands – Work Permits and Exemptions* • **Land Use Permit** • **Work Permit**	MNR	Required to authorize works during construction on public lands and/or shore lands including geotechnical investigations, construction or upgrade of access roads and trails, culverts/bridges, temporary construction camps, and transmission lines.
Crown Easement under Section 21 of the *Public Lands Act*, 1990	MNR	May be required to traverse Crown lands where a Land Use Permit is not appropriate.

Permit, licence, or approval	Primary agency/party	Description
Licences and Agreements under the *Crown Forest Sustainability Act*, 1994 • **Forest Resource Licence (FRL)** • **Permit to Remove** • **B-Licence** • **Renewal Agreement** • **Overlapping Agreement**	MNR	Required for clearing trees on Crown land or Crown trees on private lands, and for work permit operations not approved in FMPs.
Exemption under the *Aggregate Resources Act*, 1990	MNR	Required to allow the use of aggregate resources within the access road easement outside the ROW for onsite use.
Aggregate Permit under the *Aggregate Resources Act*, 1990	MNR	Required to extract aggregate and for the operation of pits and quarries on Crown land as well as private land in areas of the province designated in the regulations.

Table 1-3: Potentially required municipal permits, licences, and approvals

Permit, licence, or approval	Primary agency/party	Description
Road Entrance Permits	City of Timmins, Township of Chapleau	Required to construct potential new entrances for access to a construction site from existing municipal roads.
Noise By-law Exemption	City of Timmins, Township of Chapleau	May be required if the operation of construction equipment occurs outside of the Noise By-law curfew.
Building Permit	City of Timmins, Township of Chapleau	May be required for additional buildings constructed (e.g., relay buildings) as part of the points of interconnection.
Demolition Permit	City of Timmins, Township of Chapleau	Required if the Project includes demolition of existing houses/structures.
Permit under the *Building Code Act,* 1992	City of Timmins, Township of Chapleau, Northwestern Health Unit, and Algoma Public Health	May be required for temporary wastewater holding tank(s).
Open Air Burning Permit	City of Timmins, Township of Chapleau	Required for open air burning and fires, as applicable.

Table 1-4: Other potentially required permits, licences, and approvals

Permit, licence, or approval	Primary agency/party	Description
Notice of Work	Rail companies	May be required for crossings of federally regulated rail lines.
Section 28 Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permit	Mattagami Region Conservation Authority (MRCA)	Required for construction works within conservation authority regulated areas.
Consent	Mining claim holders	Required for construction works within mining claim areas.
Consent	Private landowners	Required for construction works on private land.
Clearance Letter	Utility companies	Required to cross utilities (e.g., natural gas or oil pipelines, fibre optics).

2.0 Study areas

At the outset of the Class EA, two study areas were identified to consider potential natural and socio-economic environment features and potential effects associated with each of the alternative routes: the PSA and the LSA. In addition, a Station Siting Study Area (SSSA) was identified for the same purposes for the siting of the proposed 500 kV TS near the existing Wawa TS.

The study areas are depicted in **Figure 2-1**, **Figure 2-2**, and **Figure 2-3**. These figures depict the alternative routes and study areas within each "segment." Due to the areas where the alternative routes converge with each other, the routes were divided into three segments (A, B, and C) to simplify the naming and evaluation of alternatives. The PSA is not visible on the main part of the figures due to the scale but can be seen within the larger scale insets included in the figures.

2.1. Project study area

The PSA was delineated to include lands within 120 m of each of the alternative route centrelines. The PSA encompasses the proposed length of the transmission line from near the Wawa TS to the Porcupine TS, including the future transmission line location, the associated ROW, and adjacent lands. The purpose of the PSA was to establish an appropriate area for scoping and planning technical studies and field investigations to document baseline conditions.

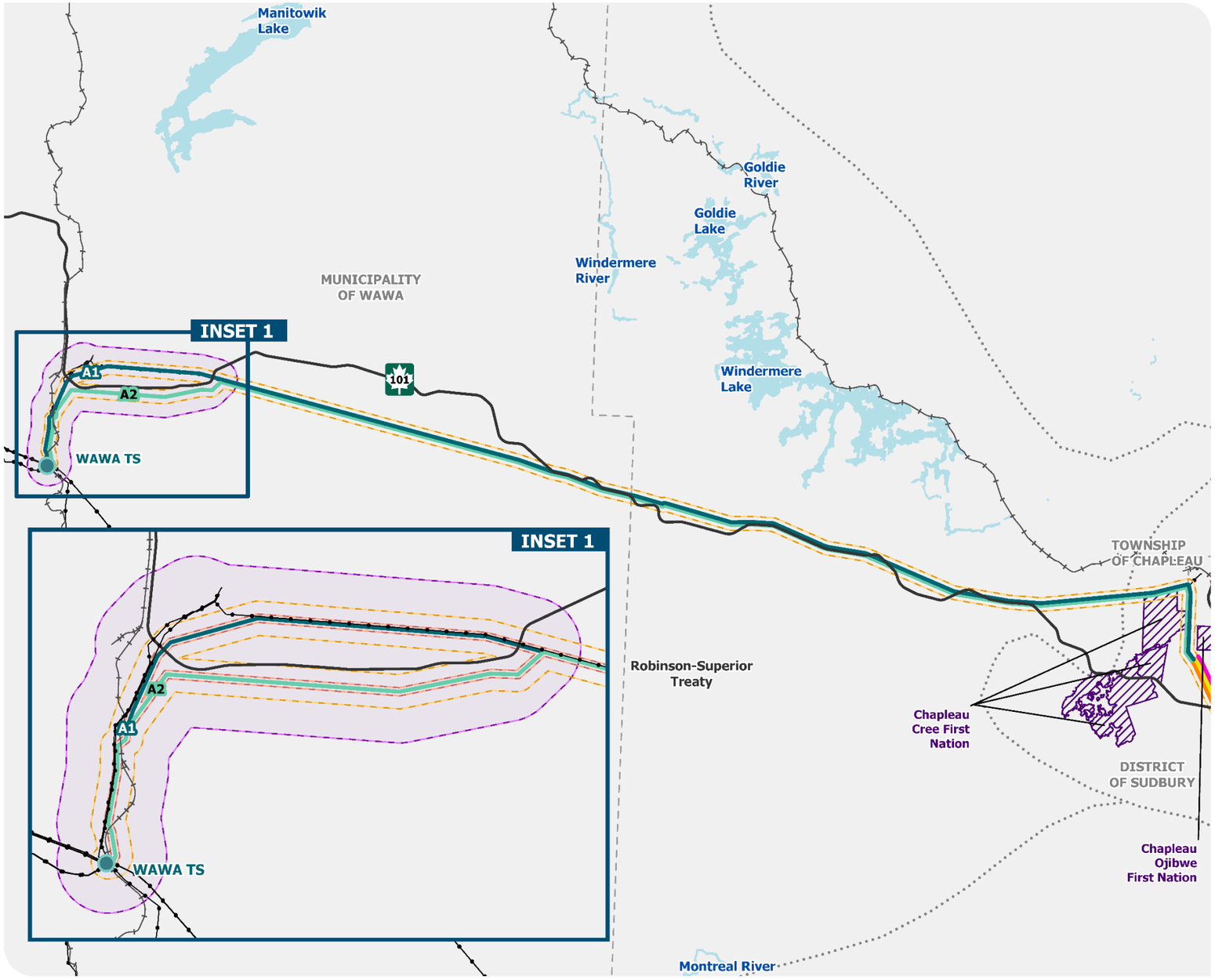
2.2. Local study area

The LSA was delineated to include lands within 500 m of each of the alternative route centrelines. As with the PSA, the LSA encompasses the proposed length of the transmission line from the Wawa TS to the Porcupine TS. The purpose of the LSA was to expand upon the PSA to include areas of potential indirect Project effects on the natural and socio-economic environments associated with each of the alternative routes.

2.3. Station siting study area

The SSSA was delineated to include lands within 1.5 km of portions of the western extent of Segment A. The SSSA encompasses approximately the first 17.5 km of Routes A1 and A2, from the existing Wawa TS to the point where the routes join east of Highway 101 (see **Figure 2-1**). The purpose of the SSSA was to provide a broad search area for the new TS in proximity to the alternative routes and the existing Wawa TS.

Figure 2-1: Study areas (Segment A)



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

STUDY AREAS (SEGMENT A)

FIGURE 2-1

- Existing Transformer Station (TS)

Alternative Routes

- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Project Study Area (120 m on either side of the route centreline)
- Local Study Area (500 m on either side of the route centreline)
- Station Siting Study Area

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:270,000

0 3.25 6.5 13 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

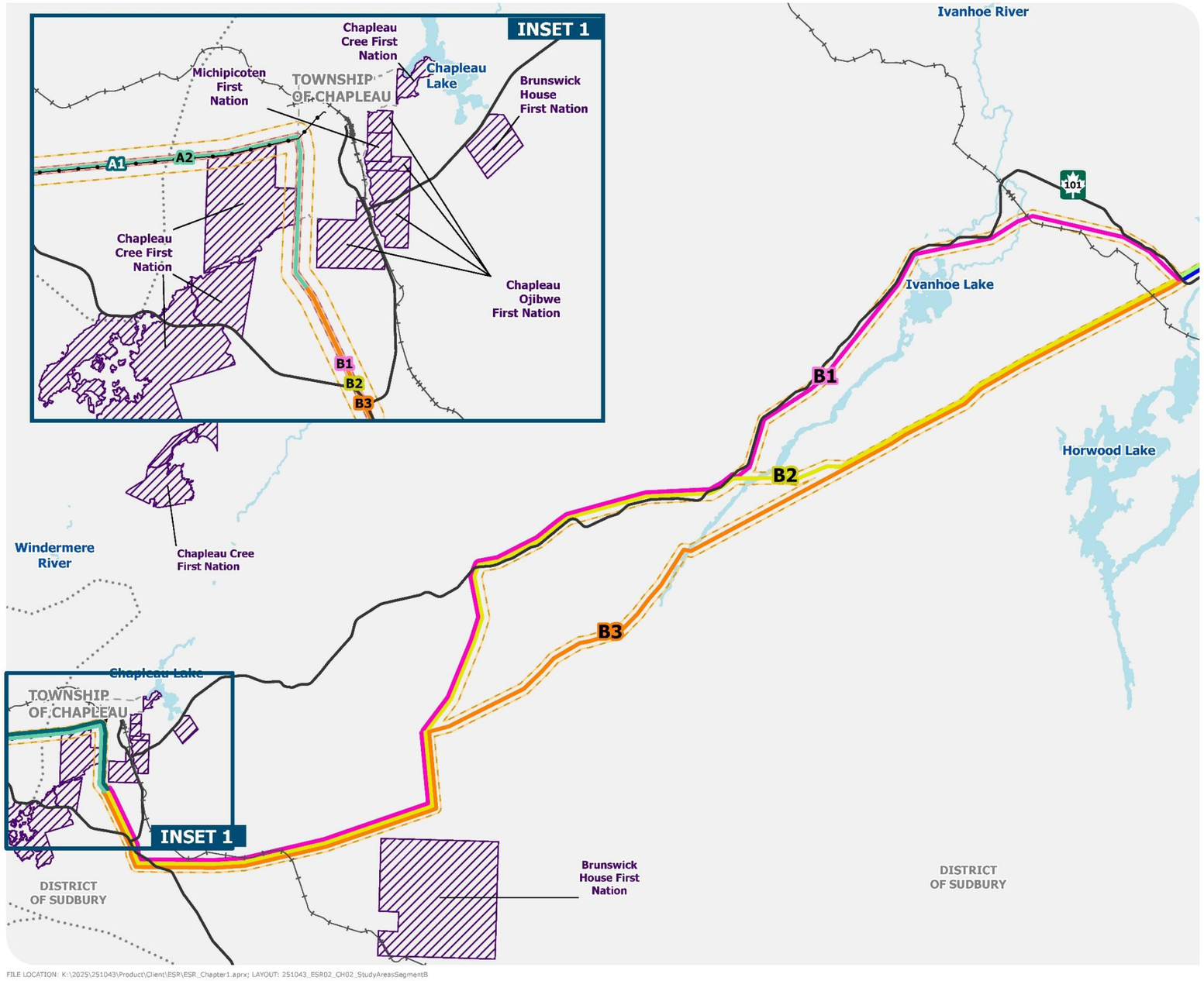
Project Data: v5.1

MAP CREATED BY: LMM / DDR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter1.aprx; LAYOUT: 251043_ESR02_CH02_StudyAreasSegmentA

Figure 2-2: Study areas (Segment B)



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

STUDY AREAS (SEGMENT B)

FIGURE 2-2

- Existing Transformer Station (TS)

Alternative Routes

- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2
- Project Study Area (120 m on either side of the route centreline)
- Local Study Area (500 m on either side of the route centreline)

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:300,000

0 3.5 7 14 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

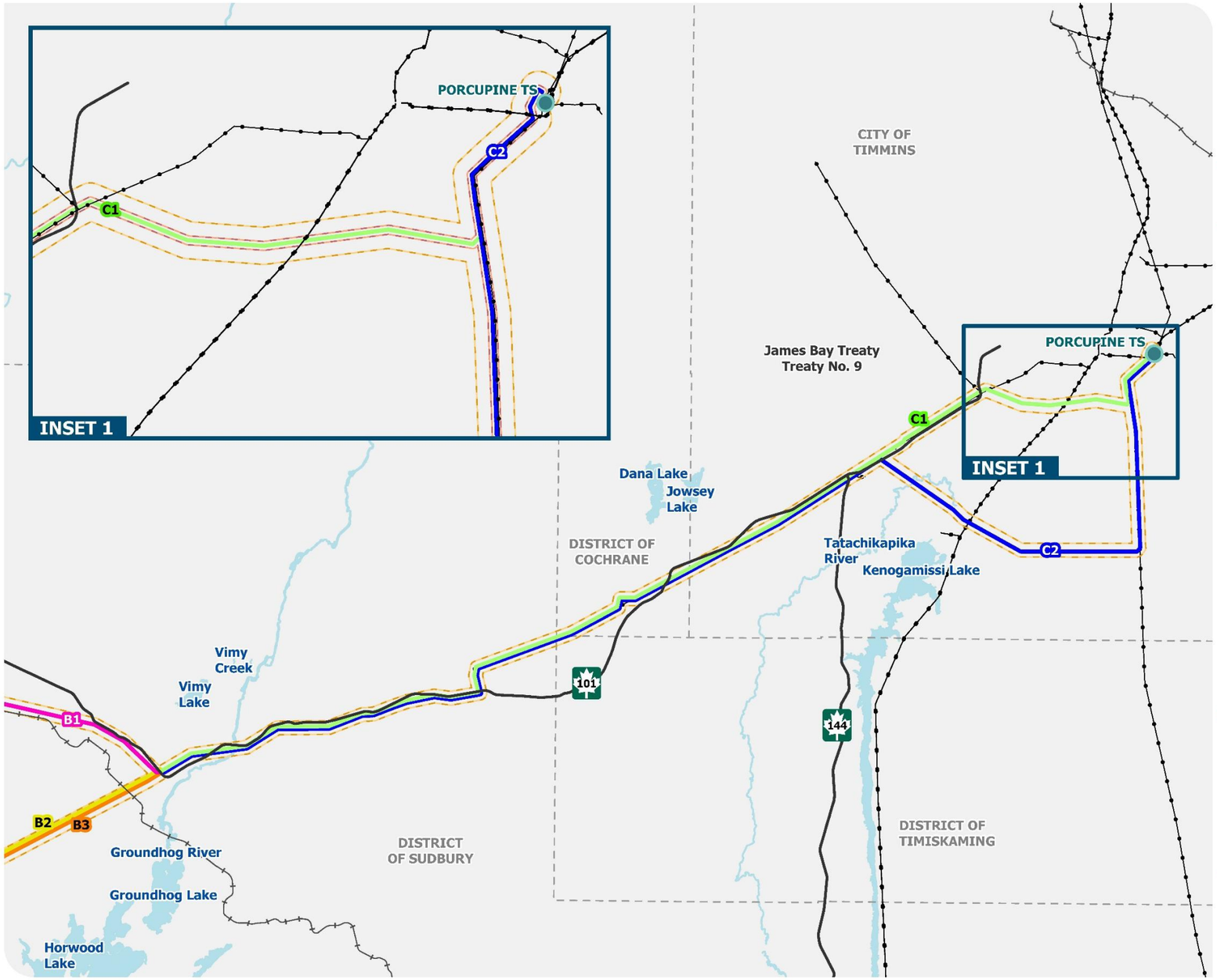
Project Data: v5.1

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MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter1.aprx; LAYOUT: 251043_ESR02_CH02_StudyAreasSegmentB

Figure 2-3: Study areas (Segment C)



3.0 Consultation

Consultation and engagement are essential components of the Class EA that provide meaningful opportunities for participation and input into the planning process. In addition, proponents gain important insight about social, cultural, economic, Indigenous, and environmental feedback and considerations related to a proposed project. The key principles that guide Hydro One's approach to consultation and engagement include:

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

To facilitate transparent and robust consultation and engagement, a variety of tools have been, and continue to be, implemented. These consist of the following:

- Early and ongoing engagement with Indigenous communities;
- Notification letters to provide updates on the Project. Notices were sent via Canada Post admail to available postal routes and Postal Office (PO) boxes within an approximately 5 km buffer around the alternative routes' centrelines;
- Letters delivered by hand or registered mail to potentially impacted landowners to provide updates on the Project and encourage any questions and feedback to be discussed with Project representatives;
- Newspaper, radio, and social media advertisements to provide Project updates and reminders of upcoming community open houses (COH);

- Establishment of an Agency Technical Advisory Committee (TAC) and an Indigenous TAC with Partner First Nations, which consist of workshops to provide input to the analysis of the preferred route (**Section 3.10**);
- In person and virtual community information sessions (CISs) with Partner First Nations to provide input and gather feedback on the Project;
- In-person COHs where interested stakeholders could meet with the Project team to ask questions and provide feedback;
- Meetings and discussions with Indigenous communities, federal, provincial, and municipal staff, elected officials, and residents;
- Virtual and in-person meetings, and correspondence with rights-holders and stakeholders who expressed specific interests, concerns, and/or feedback;
- Establishment of a Project contact list, through which interested parties received Project updates via email;
- Dedicated Project email address and phone number for receiving questions and feedback;
- Dedicated Indigenous Partnerships and Business Development team to consult with Indigenous communities; and
- A Project website: HydroOne.com/WawaTimmins to help share Project information and provide Project updates. An interactive online mapping tool is also available on the website to obtain input from stakeholders.

This draft ESR includes correspondence up to June 5, 2026. Correspondence following June 5, 2026 will be documented in the final ESR. Correspondence is summarized below and included in the Record of Consultation (RoC) for elected officials, federal, provincial and municipal agencies, interest groups, landowners, and the general public (**Appendix B-6**).

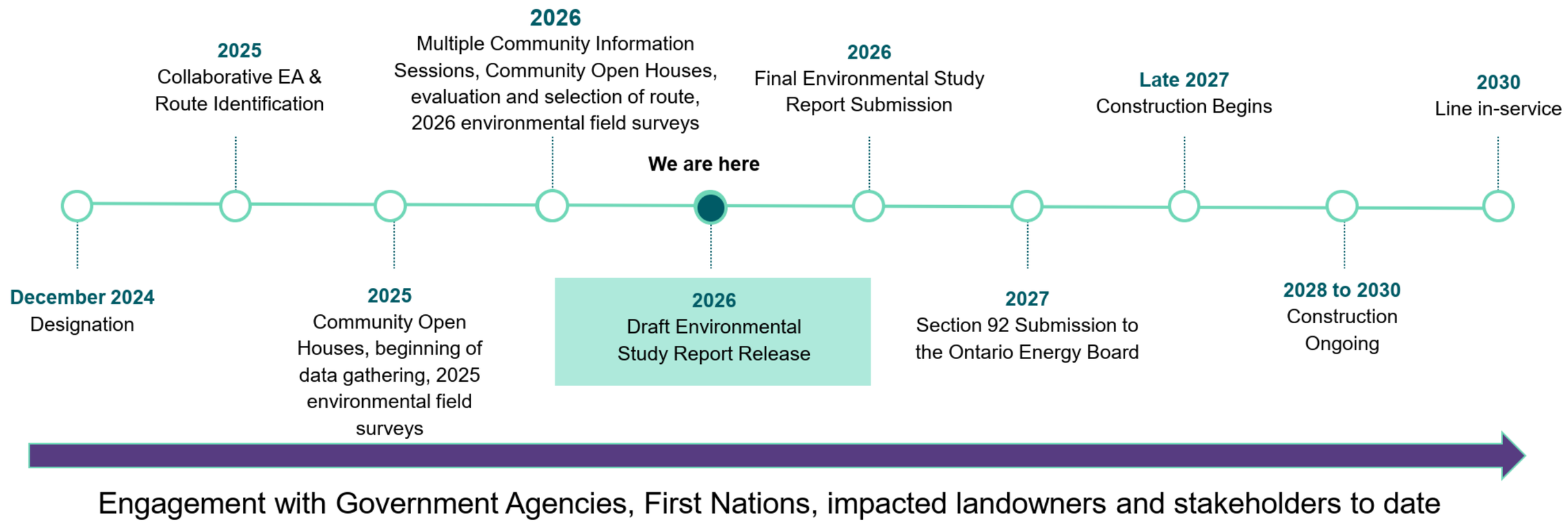
Hydro One has engaged with Partner Nations and other Indigenous communities prior to the public review period on the draft ESR and has received detailed comments which are not yet reflected in this draft report due to time constraints. Hydro One remains committed to addressing these comments and other comments received during the public review period and continuing engagement and dialogue with affected Indigenous communities. Any additional information, recommendations, or perspectives received from affected Indigenous communities throughout the development and completion of

the EA will be reviewed, discussed, and considered in good faith and integrated, as appropriate, into the final ESR or subsequent stages of Project planning. This may include the refinement or addition of mitigation measures, and the identification of opportunities to avoid, minimize, and/or address potential effects of the Project.

The consultation and engagement activities as of June 5, 2026 are summarized in this report, as well as a timeline of activities (**Figure 3-1**) and related materials in the appendices, including:

- The Project contact list at the time of this report – **Appendix B-1**;
- Copies of consultation and engagement materials such as notices, COH display panels/presentation slides, and correspondence – **Appendix B-2**;
- Copies of consultation and engagement materials with Indigenous communities – **Appendix B-3**;
- Key correspondence with stakeholders – **Appendix B-4**;
- TAC materials – **Appendix B-5**; and
- A copy of the Project's RoC for elected officials, federal, provincial, and municipal agencies, interest groups, landowners, and the general public up to June 5, 2026 – **Appendix B-6**.

Figure 3-1: Consultation and Engagement Timeline



3.1. Project contact list

At the outset of the Project, Hydro One identified a preliminary list of potential rights-holders and stakeholders who might be affected by or interested in the Project. The preliminary list was based on the geographic location of the Project and included:

- Indigenous communities identified by the MEM (refer to **Section 3.11**);
- Potentially impacted residents or landowners with parcels that intersect the centreline of one or more of the proposed alternative routes;
- Local municipalities, districts, cities and townships located within the general Project area;
- Elected representatives and government ministries, departments, or agencies with a potential interest in the Project[3]; and
- Other interested parties and stakeholders (e.g., local businesses, forestry, mining, tourism, and other industries, utilities, service boards, community groups, trappers, fur councils, non-government organizations (NGOs), emergency services, recreational clubs/facilities, aviation services etc.) with a potential interest in the Project.

The Project contact list continues to be updated throughout the Project as new rights-holders and stakeholders are identified and request to be included or removed. The Project contact list includes Indigenous communities, federal, provincial, and municipal staff, elected officials, interest groups, businesses, advocacy groups, and stakeholders (e.g., members of the public and potentially impacted landowners). The Project contact list is included in **Appendix B-1**.

3.2. Project website

Hydro One has a dedicated Project website: HydroOne.com/WawaTimmins. The website provides:

- Up-to-date Project information;

[3] Provincial Ministries are referred to by their current names throughout this report, unless otherwise specified.

- Background on the planning of the Project and Class EA process;
- Static and interactive Project maps;
- Copies of Project materials (e.g., COH panels and notices);
- Anticipated Project schedule; and
- Contact information for the Project team to ask questions or submit comments.

3.2.1. Interactive map

On June 9, 2025, Hydro One launched an interactive map with the alternative routes on the Project website. The interactive map allows those interested to explore the Project area, with the ability to zoom-in to specific locations of interest. The interactive map was updated on May 11, 2026, with the preferred route. Comments can be posted directly on the interactive map under the following categories: Natural Environment, Socio-Economic Environment, Technical, or other. Tablets were also available during the COHs so attendees could leave comments and ask questions through the interactive map.

The interactive map was available throughout the Class EA. From June 9, 2025, to June 5, 2026, the interactive map received 2,226 views, and during this period, 43 contributions were submitted. Visitation and contribution activity generally increased around key Project milestones and consultation periods, including the launch of the interactive map and COH #1 in June and July 2025, COH #2 in early February 2026, and the period leading up to COH #3 in late May and early June 2026.

Comments received through the interactive map included feedback related to residential communities, existing fishing areas, trails, traplines, forested areas, and wildlife. Comments received through the interactive map have been and will continue to be considered in Project planning as appropriate.

A summary of themes and comments received through the interactive map up to and including June 5, 2026, is included in **Section 3.18**.

The website and interactive map continue to be updated throughout the Project.

3.3. Community open houses

Hydro One hosts COHs at key stages of the Class EA process to share Project information, provide updates on Project milestones, and gather feedback from community members, stakeholders and interested parties. The COHs provide an opportunity for attendees to review information and learn more about the Project, ask questions and discuss concerns with Project team members, and provide input for consideration as Project planning progresses.

Three rounds of COHs have taken place for the Project. COHs were held in South Porcupine, Chapleau, and Wawa, with an additional COH held in Foleyet during the second round. The COHs were held at key Project milestones to introduce the Project and alternative routes, provide updates on the Class EA process and route refinements, and share the preferred route.

The COHs were drop-in style events and did not require registration, allowing for informal one-on-one interactions between attendees and Hydro One staff. Hydro One members from various lines of business including Environment, Community Relations, Indigenous Partnerships and Business Development, Real Estate, and Project Delivery were available to facilitate discussions, answer specific questions and listen to community feedback. Attendees were encouraged to sign in upon arrival and provide formal input via comment forms provided. Through the sign-in sheets, attendees also had the opportunity to join the Project's contact list to receive Project updates.

3.3.1. Display materials

A variety of informational materials were shared at the COHs to provide details on the Project, Class EA process. Large-sized poster board panels were set up for the COHs and French printouts of the panels were also available.

Additional materials included large-format tabletop maps, tablets with the interactive map and hard-copy comment forms. These materials were available for attendees to review, discuss, and/or use to provide feedback. A summary of these materials and the comments received is provided in the sections below.

3.3.2. Tabletop maps

Tabletop maps with large-format aerial mapping were available at the COHs. These tabletop maps allowed attendees to view and comment on high resolution aerial mapping of the alternative routes at COH #1 and #2 and preferred route at COH #3 and provide specific feedback to the Project Team by marking locations of interest.

3.4. Notice of commencement and invitation to community open house #1

The Notice of Commencement (NoC) included an invitation to the first COH and introduced the Project by outlining its need, description, timeline, and general Project area, including a map of the alternative routes being studied, along with an overview of the Class EA and planning process and Hydro One contact information. The invitation was available in English, French, Ojibwe, and Cree on the Project website. The NoC also encouraged recipients to visit the Project website and invited questions and comments.

Copies of the NoC and invite to COH #1 were distributed as follows:

- On May 29, 2025, Hydro One sent the NoC to Partner First Nations via email;
- On June 6, 2025, Hydro One sent the NoC to all other Indigenous communities via email;
- The NoC was emailed to the Project contact list on June 9, 2025;
- Beginning June 9, 2025, the NoC was distributed to approximately 2,400 homes and businesses via Canada Post admail to available postal routes and PO boxes within an approximately 5 km buffer around the alternative routes' centrelines;
- On June 19, 26, and July 3, 2025, the NoC was published in local media; and
- Social media advertisements ran on Facebook from June 9 to July 8, 2025, to promote COH #1. Each ad linked to the Project website.

Refer to **Appendix B-2** for a copy of the NoC and invitation to COH #1. Refer to **Section 3.11** for information on Partner First Nations and other Indigenous communities.

3.5. Community open house #1

The first round of COHs was held in the community of South Porcupine, the Township of Chapleau, and the Municipality of Wawa on July 7, 8, and 9, 2025, respectively. The purpose was to:

- Introduce the Project;
- Explain its need and the operation of the electricity system;
- Outline the Class EA process and timeline; and
- Share information on the preferred route selection process while gathering community feedback on the alternative routes.

Approximately 212 individuals participated in COH #1 across the three locations, of whom 143 formally signed in. Attendance details are summarized in the participation table below.

Table 3-1: July 2025 in-person COH #1 event participation

Date and Time	Venue	Number of Signed-in Attendees
July 7, 2025 4:00 to 8:00 PM	Royal Canadian Legion, Branch 287 (46 Legion Drive, South Porcupine, ON, P0N 1H0)	68
July 8, 2025 4:00 to 8:00 PM	Royal Canadian Legion, Branch 5 (33 Young Street, Chapleau, ON, P0M 1K0)	40
July 9, 2025 4:00 to 8:00 PM	Royal Canadian Legion, Branch 429 (51 Broadway Avenue, Wawa, ON, P0S 1K0)	35
	Total COH #1 Sign-ins	143

3.5.1. Display materials

A series of large-sized poster board panels were displayed to provide an overview of the Project and the Class EA process. French printouts of the panels were also available. The information presented on these panels included:

- How the electricity system works;
- The Project need;

- The Class EA process and key components;
- Alternative routes under study and the selection process;
- How Hydro One is working with potentially impacted landowners and engaging with communities;
- How Hydro One is working with Indigenous communities;
- Anticipated Project schedule; and
- How to get involved.

3.5.2. Tabletop maps

During COH #1, attendees utilized the tabletop maps to note key landmarks or areas of interest including camps, trails, commercial businesses, as well as wildlife.

In addition to tabletop map markups, comments were received through the interactive map during the COH #1 period. These comments included concerns related to camp and cottage areas, recreational trails, existing land uses, and natural features within the general Project area. Impacts to community Values were also identified by members of First Nations who attended the COH. Comments submitted on the interactive map identified concerns about the alternative routes in relation to White Pine, Borden Lake campground and cottage access, and the Porcupine Ski Runners cross-country ski trails, including trails on leased and private property near Gold Mine Road.

3.5.3. Key themes

Feedback received through discussions with attendees, comment forms, tabletop map markups and the interactive map included:

- Project timelines, including questions about the construction start date;
- Rationale for route choices and refinements;
- Project need;
- Project impacts to trappers /traplines;
- Tower design and placement;
- Concerns about impacts to recreational spaces within the general Project area (e.g., campgrounds, ski clubs, and nature trails);
- Land acquisition and compensation process, including timing;

- 50-50 First Nation Equity Partnership opportunities;
- Concerns about impacts to natural features in the area (e.g., biodiversity); and
- Cumulative effects from existing and/or planned projects in the area.

The input received during COH #1 was reviewed in the evaluation of the alternative routes and preliminary design of the Project. This included feedback about one alternative route near Borden Lake, including potential effects on access to the Borden Lake campground and nearby cottages. Feedback regarding potential effects on cross-country ski trails was also received, including trails associated with the Porcupine Ski Runners Club and properties near Gold Mine Road. Hydro One reviewed this feedback as part of the route refinement process, and feedback received during COH #1 contributed to route refinements that were presented at COH #2.

Detailed information on the feedback received and Hydro One's responses can be found in **Section 3.19**. A second round of COHs followed in February 2026.

3.6. Invitation to community open house #2

The invitation to COH #2 included a Project update on the route refinements and the Class EA planning process. It encouraged recipients to visit the Project website and invited questions and comments. The invitation was available in English, French and Cree through the Project website.

Copies of the invitation to COH #2 were distributed as follows:

- On January 12, 2026, letters were sent by registered mail to potentially impacted landowners who may have been directly affected by the Project's alternative routes. The invitation was also distributed to approximately 2,400 homes and businesses via Canada Post admail to available postal routes and PO boxes within an approximately 5 km buffer around the alternative route centrelines;
- On January 14 and 23, 2026, invitations to COH #2 were sent to Project stakeholders via email;
- From January 14 to February 5, 2026, Facebook advertisements were posted on social media. Each ad linked to the Project website where social media users could learn about the Project and the details of COH #2;

- On January 15 and 29, 2026, the notice was published in the Timmins Times and Chapleau Express. Radio ads were played on six local radio stations in the general Project area, including: CJQQFM, CHMTFM, CKGBFM, CHYKFM, CJWTFM, and CJWAFM between January 13 and January 27, 2026; and
- A separate COH #2 notice was developed for the Foleyet COH and was distributed on January 28, 2026, to the community through hand-delivery as well as a Facebook ad.

3.7. Community open house #2

The second round of COHs was held in the community of South Porcupine on February 2, 2026, the community of Foleyet and the Township of Chapleau on February 3, 2026, and the Municipality of Wawa on February 4, 2026. The purpose was to:

- Provide an update on the Class EA process;
- Share route refinements, including refinements made based on feedback received since the NoC was issued;
- Discuss environmental and archaeological studies completed to-date; and
- Answer questions, listen and gather feedback from the community, and outline next steps.

Hydro One added a dedicated COH in Foleyet to facilitate direct dialogue with community members in response to a request received from the community.

Approximately 159 individuals participated in COH #2 across all locations, of whom 125 formally signed in. Attendance details are summarized in the participation table below.

Table 3-2: February 2026 in-person COH #2 event participation

Date and Time	Venue	Number of Signed-in Attendees
February 2, 2026 4:00 to 7:00 PM	Royal Canadian Legion, Branch 287 (46 Legion Drive, South Porcupine, ON, P0N 1H0)	46
February 3, 2026 11:00 AM to 1:00 PM	Foleyet Town Hall (25 Sherry Ave, Foleyet, ON P0M 1T0)	38
February 3, 2026 4:00 to 7:00 PM	Royal Canadian Legion, Branch 5 (33 Young Street, Chapleau, ON, P0M 1K0)	22
February 4, 2026 4:00 to 7:00 PM	Royal Canadian Legion, Branch 429 (51 Broadway Avenue, Wawa, ON, P0S 1K0)	19
	Total COH #2 Sign-ins	125

3.7.1. Display materials

A series of large-sized poster board panels were displayed to provide an overview of the Project and the Class EA process. The information presented on these panels included:

- How the electricity system works;
- Project justification and need;
- General Project overview;
- Class EA process and its key components;
- Identification and assessment methodology for alternative routes;
- Refinements made to the alternative routes;
- Engagement with Indigenous communities and potentially impacted landowners;
- Planned fieldwork and training opportunities for Indigenous monitors;
- Anticipated Project schedule; and
- Methods for continued public involvement.

3.7.2. Tabletop maps

During COH #2, attendees utilized the tabletop maps to note key landmarks or areas of interest such as residential houses and camps.

In addition to tabletop map markups, comments were received through the interactive map during the COH #2 period. These comments included concerns related to residential properties, cottages, traplines, fishing and trail areas, forested areas, wildlife, and natural features. Comments submitted through the interactive map during this period identified concerns regarding the potential effects of the alternative routes on trapline access and activities, brook trout lakes, residential areas, cottage roads, and recreational areas. A technical question was also received regarding whether Weston Lake Distribution Station (DS) would be connected to the proposed line.

3.7.3. Key themes

Feedback collected through discussions with attendees, comment forms, tabletop map markups, and the interactive map included:

- Project timelines, including questions about the announcement of the preferred route;
- Questions about route refinements;
- Questions about how the electricity system works and reliability concerns;
- Project impacts to trappers and other resource licence holders;
- The potential to retain cut timber;
- Concerns regarding impacts to existing and future planned industrial land uses;
- Questions regarding herbicide use;
- Questions about Indigenous community engagement;
- Concerns about impacts on natural features in the area (e.g., local fauna); and
- Requests for Project shapefiles, once available.

The input provided was considered and incorporated where possible into the comparative evaluation of the alternative routes. Feedback regarding route refinements, residential and cottage areas, traplines, recreational areas, natural features, and existing and future land uses helped Hydro One further understand local conditions and route-specific considerations. Questions and concerns raised during COH #2 also helped identify topics requiring continued communication, including the rationale for route refinements, the timing of the preferred route announcement, landowner

engagement, Indigenous community engagement, herbicide use, and the availability of Project shapefiles.

Detailed information on the feedback received and Hydro One's responses can be found in **Appendix B-2**. A third round of COHs followed in June 2026, where the preferred route was presented.

3.8. Notice of preferred route and invitation to community open house #3

The notice of preferred route came with an invitation to the third COH, Project update on the Class EA planning process and selection and a map of the preferred route. The notice encouraged recipients to visit the Project website and invited questions and comments. The notice was available in English and French through the Project website.

The notice of preferred route and invitation to COH #3 were distributed as follows:

- On April 28, 2026, Hydro One sent the notice to Partner First Nations via email;
- On May 11, 2026, letters were sent by registered mail to directly impacted landowners who were affected by the Project's preferred route;
- On May 12, 2026, Hydro One sent the notice to other Indigenous communities via email;
- Beginning May 14, 2026, the notice was distributed to approximately 2,400 homes and businesses via Canada Post admail to available postal routes and PO boxes within an approximately 5 km buffer around the alternative routes' centrelines;
- On May 14 and 15, 2026, the notice was sent to the Project stakeholder contact list;
- On May 14 to June 5, 2026, Facebook advertisements were posted on social media. Each ad linked to the Project website where social media users could learn about the Project and the details of COH #3;
- On May 14 and 28, 2026, the notice was published in the Timmins Daily Press and Chapleau Express. On May 22, 2026, the notice was also published in the Sioux Lookout Wawatay News; and

- Radio ads were played on six local radio stations in the general Project area, including: CJQQFM, CHMTFM, CKGBFM, CHYKFM, CJWTFM, and CJWAFM between May 14 and June 5, 2026.

3.9. Community open house #3

The third round of COHs was held in the community of South Porcupine, the Township of Chapleau, and the Municipality of Wawa on June 2, 3, and 4, 2026, respectively. The purpose was to:

- Provide an update on the Class EA process;
- Describe how the alternative routes were evaluated;
- Share the preferred route;
- Discuss environmental field studies; and
- Answer questions, listen to, and gather feedback from the community, and outline next steps.

Approximately 127 individuals participated in COH #3 across the three locations, of whom 93 formally signed in. Attendance details are summarized in the participation table below.

Table 3-3: June 2026 in-person COH #3 event participation

Date and Time	Venue	Number of Signed-in Attendees
June 2, 2026 4:00 PM to 7:00 PM	Royal Canadian Legion 287, (46 Legion Drive, South Porcupine, ON, P0N 1H0)	58
June 3, 2026 4:00 PM to 7:00 PM	Royal Canadian Legion 5, (33 Young Street, Chapleau, ON, P0M 1K0)	27
June 4, 2026 4:00 PM to 7:00 PM	Royal Canadian Legion 429, (51 Broadway Avenue, Wawa, ON, P0S 1K0)	13
	Total COH #3 Sign-ins	93

3.9.1. Display materials

A series of large-sized poster board panels were displayed to provide an overview of the Project and the Class EA process. French printouts of the panels were also available. The information presented on these panels included:

- How the alternative routes were evaluated;
- How the preferred route was selected;
- Mitigation and restoration opportunities during construction;
- Studies informing the detailed design of the new line;
- How Hydro One is working with Indigenous communities and landowners;
- Anticipated Project schedule; and
- How to get involved.

3.9.2. Tabletop maps

During COH #3, attendees utilized the tabletop maps to note key landmarks or areas of interest including homes, businesses, camps, nests, recreational areas, and places of cultural significance.

Community members in the area raised concerns about the preferred route's proximity to and crossing of various lakes, including potential effects on areas used for recreational activities. Community members requested that the route be refined to increase separation from cottage and recreational areas near Boom Lake, Star Lake, McLennan Lake, Poulin Lake, and Kinniwabi Lake.

Trappers with interests that may be affected by the Project also attended COH #3 and provided feedback about their traplines, including questions about access and construction timelines. Trappers requested ongoing engagement as the Project team continues to develop access and construction plans.

Attendees also discussed an Elder's cabin near Ivanhoe Lake that may be affected by the preferred route, including potential effects on the cabin and continued access during construction and operation. Attendees requested that the Project team consider potential mitigation measures for the cabin and associated access during Project planning.

3.9.3. Key themes

Feedback collected through discussions with attendees, comment forms, tabletop map comments, and the interactive map included:

- Routing recommendations;
- Questions regarding the reasoning for the preferred route selection;
- Project impacts to trappers and other resource licence holders;
- Concerns about impacts to existing and future planned industrial land uses;
- Questions about herbicide use;
- Questions about community engagement;
- Questions about healthcare for workers during construction;
- Questions about the Project schedule;
- Concerns about visual and aesthetic impacts;
- Concerns about impacts to natural features in the area (e.g., local fauna) and associated mitigation;
- Concerns about impacts to directly impacted landowners;
- Concerns about impacts to recreational areas and activities;
- Concerns about access to remote areas;
- Concerns about wildfires; and
- Requests for additional Project mapping, including access plans.

The input provided during COH #3 helped Hydro One better understand route-specific feedback related to the preferred route, including feedback about trapping, local businesses, nearby lakes, cottages, recreational areas, and culturally significant locations. Routing recommendations, access concerns and requests for additional engagement were documented for consideration as Project planning, design, access planning, and construction planning continue.

Feedback received during COH #3 also helped identify topics requiring continued communication, including how the preferred route was determined, the timing of final ROW corridors and tower location decisions, potential mitigation measures, future

access planning, and opportunities for continued engagement with directly impacted landowners, trappers, local businesses, and other interested parties.

Detailed information on the feedback received and Hydro One's responses can be found in **Appendix B-2**.

3.10. Technical advisory committee workshops

Three Indigenous TAC workshops with Partner First Nations and three Agency TAC workshops were held during different stages of the Class EA. The purpose of the TAC workshops was to provide a platform for Hydro One to present information, hold discussions, and draw upon the knowledge and experience of representatives from the Partner First Nations and agencies. The Indigenous TAC was made up of representatives from the Partner First Nations on the Project. Agency TAC invitees included federal departments, provincial ministries, local municipalities, services boards, airports, MRCA, Canadian National Railway (CN Rail), and Canadian Pacific Kansas City Limited (CPKC).

This knowledge-sharing forum helped to inform the planning and Class EA for the Project. Specifically, Hydro One drew upon the technical knowledge shared by TAC participants to help inform the comparative evaluation used to select the preferred route for the Project. The comparative evaluation considered evaluation criteria in four categories: Indigenous Culture, Values and Land Use, Socio-Economic Environment, Natural Environment, and Technical and Cost Considerations. These categories were used to compare the alternative routes. Representatives from the Partner First Nations were invited to provide input on three categories: Indigenous Culture, Values and Land Use, Socio-Economic Environment, and Natural Environment categories of the evaluation. Agency TAC members were invited to provide input on the Socio-Economic Environment and Natural Environment categories of the evaluation.

A summary of each workshop is provided in the following sections.

3.10.1. Technical advisory committee workshop #1

The first Indigenous TAC workshop with Partner First Nations was held in a hybrid in-person and virtual format on July 22, 2025, and the first Agency TAC workshop was held

virtually on July 29, 2025. The objectives of the sessions were to introduce the Project and support the development of preliminary evaluation criteria and metrics for the Indigenous Culture, Values and Land Use (Input from Indigenous TAC only), Socio-Economic Environment, and Natural Environment categories.

The workshops consisted of three components:

- An agenda and handout provided ahead of the workshops;
- A hybrid/virtual workshop featuring a presentation by the Project team and a moderated group discussion; and
- A digital survey circulated following the workshops to collect feedback on the preliminary evaluation framework.

Hydro One delivered a presentation covering the following topics:

- Project overview and Class EA process;
- Overview of the alternative routes and the weighted Multi-Criteria Decision-Making Analysis (MCDA) route evaluation process;
- Review of the preliminary evaluation criteria and metrics for the Indigenous Culture, Values and Land Use (Only presented at the Indigenous TAC), Socio-Economic Environment, and Natural Environment categories;
- Group discussion to gather input, feedback, questions, and comments on the evaluation criteria and metrics; and
- Next steps for the study.

3.10.1.1. Indigenous technical advisory committee workshop #1 with Partner First Nations

Attendees at Indigenous TAC #1 included a total of 14 individuals representing:

- Chapleau Cree First Nation (online);
- Chapleau Ojibwe First Nation (online);
- Flying Post First Nation (in person);
- Matachewan First Nation (in person);
- Mattagami First Nation (in person and online);
- Missanabie Cree First Nation (online);
- Michipicoten First Nation (online);

- Taykwa Tagamou Nation (online); and
- Wabun Tribal Council[4] (in person).

3.10.1.1.1. Moderated discussion

Key points of discussion during the workshop included:

- The suggestion that different Indigenous communities may require different metrics or weighting based on the specifics of their traditional territory;
- Concerns that preliminary metrics appeared unclear or overlapping;
- The recommendation to address treaty rights as high-level legal obligations with higher weight than other criteria;
- The importance of including culturally significant species, such as moose and birch, in the comparative evaluation;
- A preference for routing alongside existing infrastructure to minimize further land fragmentation; and
- Concerns regarding herbicide spraying in hunting and harvesting areas.

3.10.1.1.2. Digital survey

A digital survey was available to Indigenous TAC for Partner First Nations invitees from July 23 to September 5, 2025. The intent of the survey was to gather input on whether members agreed with the proposed criteria and metrics as well as suggestions for additional criteria or metrics. The survey consisted of four sections:

- Indigenous Culture, Values and Land Use;
- Natural Environment;
- Socio-Economic Environment; and
- General workshop feedback.

3.10.1.1.3. Summary of comments

In total five survey responses were received from Chapleau Cree First Nation, Flying Post First Nation, Mattagami First Nation, Michipicoten First Nation, and Missanabie

[4] Wabun Tribal Council was present at the Indigenous TAC for technical support by request of several of the Partner First Nations who are members of Wabun Tribal Council.

Cree First Nation. Generally, respondents agreed with the proposed criteria and approach for the three categories (Indigenous Culture, Values and Land Use, Socio-Economic Environment, and Natural Environment), though some disagreements were noted regarding specific metrics and the need to incorporate additional Indigenous Values and knowledge.

Hydro One reviewed the input to establish an evaluation framework that is reflective of TAC input and available technical data. Criteria proposed by TAC members were added to the evaluation framework where appropriate and feasible. A summary of the survey comments and how they were incorporated into the evaluation is provided below.

Indigenous Culture, Values and Land Use:

- Recommendations were made to add metrics for subsistence, gathering, day/overnight use, general land use, fishing, medicine walks, harvesting routes, incidental cabins, culturally significant species, and indicator species. The Project team updated the metrics to incorporate these types of features and followed up at Indigenous TAC workshop #2 regarding the need for community Values mapping to support inclusion of these metrics;
- It was recommended that ceremonial and burial sites be identified in relation to their distance from the ROW and buffered accordingly to support their protection. The Project team incorporated buffers for these types of sites based on direction received alongside community Values mapping provided by Partner First Nations. These buffers are intended to help avoid or minimize potential disturbance to sensitive cultural areas during Project planning, construction, and related activities;
- It was noted that shared territories must be acknowledged using updated traditional territory maps. The Project team followed up during Indigenous TAC workshop #2 regarding this comment and the need for updated traditional territory maps;
- It was stated that Treaty rights should be recognized as higher-level legal obligations rather than “just another weighted factor.” Further, it was suggested to focus criteria related to treaty rights on impacts as opposed to areas of

intersection, and to assess impacts for each First Nation's territory. The Project team followed up about this comment during Indigenous TAC workshop #2 and explained that further effects assessment would be completed for the preferred route, including a Cumulative Effects Assessment (CEA);

- Concerns regarding the use of herbicides in hunting/harvesting areas were expressed. The Project team followed up about this at Indigenous TAC workshop #2 and Hydro One continued to work with Partner First Nations on the vegetation management approach as the study progressed; and
- Clarification was requested on the meaning of certain terms used in the evaluation criteria/metrics. The Project team updated terminology for clarity.

Natural Environment:

- It was suggested that the habitat definition under the *Endangered Species Act* (ESA), 2007, as it read prior to the June 5, 2025 amendments, be used. The Project team explained during the Indigenous TAC workshop #2 that the previous definition for habitat would be considered for the Class EA;
- A recommendation was made to add a connectivity corridor metric. The Project team added a metric for ecological corridors and followed up about the need for mapping/data to support this metric during and after Indigenous TAC workshop #2; and
- Participants requested that Indigenous Knowledge (IK) be incorporated into the Natural Environment and Socio-Economic Environment categories. The Project team explained during the Indigenous TAC workshop #2 that IK can be incorporated into other categories where possible.

Socio-Economic Environment:

- Participants emphasized a preference for paralleling existing infrastructure. No action was required to address this comment as paralleling existing infrastructure was included in the evaluation framework;
- It was recommended that the source water protection (SWP) criterion be expanded to include all lakes and rivers of cultural significance. During Indigenous TAC workshop #2 the Project team clarified that the SWP criterion is

specific to areas designated for protection of municipal drinking water. Additionally, the Project team requested mapping of lakes and rivers of cultural and historic significance for inclusion in a new metric within the Indigenous Culture, Values, and Land Use category; and

- A participant sought clarification on the definition of Built Heritage Resources (BHR) and noted areas of archaeological potential should be identified through consultation and engagement with Indigenous communities. The Project team clarified the definition of BHR and Cultural Heritage Landscapes (CHL) during Indigenous TAC workshop #2. The Stage 1 AA report for the Project was circulated to Indigenous communities for review prior to finalizing.

3.10.1.2. Agency technical advisory committee workshop #1

Attendees at Agency TAC #1 included 15 individuals representing the following organizations:

- City of Timmins;
- Infrastructure Ontario (IO);
- Manitoulin-Sudbury District Services Board;
- MRCA;
- MECP;
- MCM;
- MNR;
- Ministry of Municipal Affairs and Housing (MMAH);
- MTO;
- MEM; and
- Wawa Fire Department.

3.10.1.2.1. Moderated discussion

Key points of discussion during the workshop included:

- The suggestion to consider active landfills within the Socio-Economic Environment category; and
- An inquiry regarding the availability of higher-resolution mapping for a more accurate assessment of potentially impacted areas.

3.10.1.2.2. Digital survey

Following the workshop, a digital survey was available to TAC invitees from July 30 to August 22, 2025. The intent of the survey was to gather input on whether members agreed with the proposed criteria and metrics as well as suggestions for additional criteria or metrics. The survey consisted of three sections:

- Natural Environment criteria;
- Socio-Economic Environment criteria; and
- General workshop feedback.

3.10.1.2.3. Summary of comments

Three survey responses were received from the Municipality of Wawa; the MECP; and the MNR.

Respondents generally agreed with the proposed criteria and measurement approaches for both the Natural Environment and Socio-Economic Environment categories. Main themes involved refining specific environmental buffers, clarifying terminology, and considering specific land uses/designations. Feedback from Agency TAC workshop #1 indicated that the baseline language for the Vegetation and Vegetation Communities criterion was difficult to interpret, creating challenges for effective weighting. To enhance the evaluation, it was recommended that forest reserves be explicitly added as a metric within the Designated Natural Areas and Identified Habitat Restoration Areas criterion. Furthermore, feedback suggested introducing dedicated criteria to assess impacts on natural heritage features, designated remote tourism lakes, lake trout lakes, and forestry AOCs, alongside an offer to share corresponding provincial spatial data to support the modeling.

Hydro One reviewed the input to establish an evaluation framework that is reflective of TAC input and available technical data. Criteria proposed by TAC members were added to the evaluation framework where appropriate. A summary of the survey comments and how they were incorporated into the evaluation is provided below. Input received through Indigenous TAC workshop #1 was also integrated into the evaluation framework as outlined in **Section 3.11.2.2**.

Natural Environment

- Recommendations were made to add metrics for forest reserves, lake trout lakes, and AOCs identified in FMPs. The Project team added metrics for these features;
- Recommendations were made to adjust the metrics for wetlands, Areas of Natural and Scientific Interest (ANSI), Significant Wildlife Habitat (SWH), and fish habitat to reflect specific buffers. The Project team reviewed this recommendation and determined that no changes to the metrics were required as they were aligned with the typical approach for Class EA comparative evaluations; and
- Uncertainty was expressed regarding the meaning of incompatible vegetation and the Coefficient of Conservatism (CC). The Project team clarified the meaning of these terms during the Agency TAC workshop #2, and descriptions were added to the evaluation framework (**Section 5.2.1**).

Socio-Economic Environment

- Recommendations were made to add a metric for active landfills, AOCs, and designated remote tourism lakes. The Project team added metrics for these features;
- One participant suggested that human health and safety should be the most heavily weighted criterion. During Agency TAC workshop #2, the Project team explained that these factors apply equally to the alternative routes as they are addressed in design standards so there would be no differentiation between the alternative routes; and

- Participants noted that cost-related criteria appeared to be missing. During the Agency TAC workshop #2, the Project team clarified that the Technical and Cost Considerations category is another component of the comparative evaluation but is outside the scope of the TACs.

General Project and Methodological Feedback

- Respondents requested clarification on how measurements would be reflected in the final decision-making process and what additional input is expected beyond completing the survey. The Project team reviewed the Agency TAC workshop #2 messaging for clarity regarding the input required from participants and ensured that the messaging was clarified during Agency TAC workshop #2; and
- A request was made for higher resolution mapping. The Project team advised that a higher resolution interactive map was available on the Project website.

The full list of comments and responses is available in **Appendix B-5**.

3.10.2. Technical advisory committee workshop #2

The second Indigenous TAC workshop for the Project was held virtually on November 20, 2025, and the second Agency TAC workshop was held virtually on November 27, 2025. The objectives of the sessions were to provide updates on the Project and the evaluation framework and to gather input on criteria weights for the Indigenous Culture, Values and Land Use (Input from Indigenous TAC only), Socio-Economic Environment, and Natural Environment categories.

The workshops consisted of three components:

- An agenda and handout provided to all attendees prior to the workshops;
- A virtual workshop featuring a presentation by the Project team and a moderated group discussion;
- For the Indigenous TAC workshop, completion of a digital survey as a "test run" during the workshop for discussion purposes; and
- A digital survey circulated following the workshops to collect input on the criteria weights for the comparative evaluation categories and general feedback regarding the Project and the workshops.

Hydro One delivered a presentation that covered the following topics:

- Recap of information presented at TAC workshop #1, input received, and Project team responses to the input;
- Overview of the alternative routes and the comparative evaluation process, including a demonstration of the evaluation methods;
- Review of the updated evaluation criteria and metrics for the Indigenous Culture, Values and Land Use (Input from Indigenous TAC only), Socio-Economic Environment, and Natural Environment categories;
- Group discussion and an example survey to gather input (Indigenous TAC only), feedback, questions, and comments on the criteria weightings; and
- Next steps including the follow-up survey for input on the criteria weights.

3.10.2.1. Indigenous technical advisory committee workshop #2 with Partner First Nations

Attendees at Indigenous TAC #2 included a total of 13 individuals representing:

- Brunswick House First Nation;
- Chapleau Cree First Nation;
- Chapleau Ojibwe First Nation;
- Flying Post First Nation;
- Matachewan First Nation;
- Mattagami First Nation;
- Missanabie Cree First Nation;
- Taykwa Tagamou Nation; and
- Wabun Tribal Council[5].

[5] Wabun Tribal Council was present at the Indigenous TAC for technical support by request of several of the Partner First Nations who are members of Wabun Tribal Council.

3.10.2.1.1. Moderated discussion

Key points of discussion during the workshop included:

- The requirement for criteria related to treaty rights to be evaluated based on each Nation's traditional territory rather than a route-wide basis. The Project team explained that a detailed Impact Assessment (IA) is planned for the preferred route after the evaluation is completed;
- Questions regarding how community Values mapping and Traditional Knowledge would be protected and kept confidential during the evaluation process. The Project team clarified that community Values will not be shown publicly, and that IK will not be shared. Community Values mapping will be converted into numerical form for the evaluation; IK will remain strictly confidential under the Ownership, Control, Access and Possession (OCAP) principles;
- Recommendations to separate the traditional territory, land claims, and reserve lands criterion into three metrics. The Project team separated this metric as recommended;
- The suggestion to move the metric related to fishing from the surface water and fisheries criterion to the hunting, trapping, and harvesting criterion. The Project team implemented this change;
- The importance of including Moose Emphasis Area[6] data and bear dens within the evaluation criteria. The Project team noted that Moose Emphasis Areas will be considered in the evaluation, and bear dens could be added to the Indigenous Culture, Values, and Land Use category if mapping of bear den locations is available;
- A recommendation to move "ecological corridor crossings" to the Indigenous Culture, Values, and Land Use category as it considers historic travel routes. The Project team moved this metric as recommended; and
- Concerns about the pairwise comparison format used in the initial survey design. The Project team revised the format to a rating scale from most to least important

[6] Moose Emphasis Areas are designated within FMPs to protect, enhance, or create habitat for moose.

in response to these concerns, and this was determined to be acceptable through a follow-up meeting with the Partner First Nations.

3.10.2.1.2. Digital survey

Following the workshop, a digital survey was distributed to TAC members and available from November 26 to December 12, 2025, to collect input on the weighting of criteria within the Indigenous Culture, Values and Land Use, Socio-Economic Environment, and Natural Environment categories. Participants were asked to rank the importance of each criterion from most to least important to help establish the weightings used in the final evaluation. The survey consisted of four sections:

- Indigenous Culture, Values, and Land Use;
- Natural Environment;
- Socio-Economic Environment; and
- General workshop feedback.

3.10.2.1.3. Summary of comments

A total of 23 survey responses were received from Brunswick House First Nation, Chapleau Cree First Nation, Chapleau Ojibwe First Nation, Matachewan First Nation, Mattagami First Nation, Michipicoten First Nation, Missanabie Cree First Nation, and Taykwa Tagamou Nation. Partner First Nations were able to submit multiple responses per Nation; in these cases, the responses were averaged out so that each Partner First Nation had equal input.

Qualitative feedback indicated that respondents appreciated the incorporation of feedback from Indigenous TAC workshop #2 and the follow-up meeting regarding the revised survey format. One respondent also noted that while individual views expressed through the survey may not represent all perspectives within a Nation, the survey was a useful tool for capturing broader sentiments on the evaluation criteria. Concerns were raised by one respondent regarding the use of a criteria-based, weighted evaluation approach, noting that it may not align with Indigenous worldviews that recognize the interconnected nature of ecosystems, treaty rights, and governance responsibilities. The respondent noted that their participation should not be interpreted as acceptance of the

route selection approach or agreement with any collective weighting outcome across all Nations.

As noted in **Section 3.10**, input on criteria weighting for the Natural Environment and Socio-Economic Environment criteria was also provided by the Agency TAC, which was considered along with the Indigenous TAC input to establish the criteria weights.

Additional details including more detailed survey results can be found in **Appendix B-5**.

3.10.2.2. Agency technical advisory committee workshop #2 with Partner First Nations

Attendees at Agency TAC #2 included five individuals representing the following organizations:

- City of Timmins;
- MCM;
- MNR; and
- Township of Chapleau.

3.10.2.2.1. Moderated discussion

Workshop attendees did not raise comments or questions for discussion during the workshop.

3.10.2.2.2. Digital survey

Following the workshop, a digital survey was distributed to TAC members and available from November 28 to December 12, 2025, to collect input on the weightings of criteria within the Natural Environment and Socio-Economic Environment categories. Participants were asked to rank the importance of each criterion from most to least important to help establish the weightings used in the comparative evaluation. The survey consisted of three sections:

- Natural Environment;
- Socio-Economic Environment; and
- General workshop feedback.

3.10.2.2.3. Summary of comments

Two survey responses were received from the City of Timmins and the MNR. Respondents provided ratings of the relative importance of the evaluation criteria as well as ratings related to the workshop. General feedback was also provided about the workshop and next steps for the Project.

MNR advised that they only ranked the importance of criteria that aligned with their mandate. They also provided clarification on select ratings to explain how those weightings should be interpreted. In addition, the MNR recommended refining the wetlands criterion by differentiating unevaluated wetlands based on size. The Project team reviewed this recommendation and determined that differentiating unevaluated wetlands based on size was not necessary or practical for the purpose of the comparative evaluation. The evaluation used MNR unevaluated wetland data, which is a typical approach to provide sufficient information to compare the alternative routes. To accurately screen out smaller wetland polygons from this data, extensive field verification would be required given the potential for smaller polygons to be part of a wetland complex. Not screening out smaller wetlands is a conservative approach to use the available information.

The City of Timmins did not provide comments beyond the criteria ratings submitted through the survey.

The survey was designed to collect meaningful input from TAC members to help inform the criteria weights for the comparative evaluation. Input on criteria weightings was also received from the Indigenous TAC (**Section 3.10**), which was considered along with the Agency TAC input to establish the criteria weights.

Additional details including more detailed survey results can be found in **Appendix B-5**.

3.10.2.3. TAC #2 survey results

The survey results were consolidated to ensure equal representation among participating organizations and Partner First Nations. In addition to input from the TACs, Project team judgement was used to refine the criteria weights where required. This judgement was informed by experience for transmission line projects, specific

characteristics of the Project and its setting, and which criteria are more applicable for differentiating the alternative routes.

For example, a weighting of 0% was applied to the Aggregate Resource Extraction and SWP criteria in the Socio-Economic Environment category because these criteria did not differentiate between the alternative routes. The mapped active and inactive aggregate sites are in areas where the alternative routes follow the same alignment; therefore, this criterion did not provide a basis for distinguishing between the routes. Similarly, none of the alternative routes are located within areas where SWP policies apply. As a result, the weighting for these criteria was redistributed among other criteria in the Socio-Economic Environment category.

Following refinement of the evaluation criteria weights and development of metric weights by the Project team, the comparative evaluation of alternative routes proceeded. Further refinements made by the Project team as part of the evaluation process following the second round of TAC workshops are documented in **Section 5.2.1**.

3.10.3. Technical advisory committee workshop #3

The third Indigenous TAC workshop with Partner First Nations was held virtually on May 8, 2026, and the third Agency TAC workshop was held virtually on May 12, 2026. The primary objectives were to provide updates on the Project, present the preferred route, and outline the comparative evaluation results by alternative route segment.

The workshops consisted of two components:

- An agenda and handout provided to all attendees prior to the workshops; and
- A virtual workshop, including a presentation by the Hydro One Project team.

Hydro One delivered a presentation covering the following topics:

- Recap of information presented at TAC workshop #2, input received, and Project team responses to the input;
- Presentation of the preferred route selected based on criteria weightings established during TAC workshops #1 and #2;
- Overview of comparative evaluation results by segment; and

- Next steps for the Project including the release of the draft ESR.

3.10.3.1. Indigenous technical advisory committee workshop #3

Attendees at Indigenous TAC #3 included a total of eight individuals representing:

- Brunswick House First Nation;
- Chapleau Cree First Nation;
- Chapleau Ojibwe First Nation;
- Matachewan First Nation;
- Mattagami First Nation;
- Michipicoten First Nation;
- Missanabie Cree First Nation; and
- Wabun Tribal Council[7].

3.10.3.1.1. Moderated discussion

Key points of discussion during the workshop included:

- The need for evaluation criteria related to traditional territory boundaries to be assessed based on each Partner First Nation's specific traditional territory rather than grouped across the full Project corridor. It was noted that cultural and historical significance varies by location and that averaging impacts across the corridor generalizes the issue too broadly given the Project's geographic extent;
- Concerns regarding how traditional territories, including land claims, were considered in the evaluation. Some Partner First Nations emphasized that traditional territories represent a form of land claim, regardless of whether those claims have been formally recognized or accepted by the government;
- Questions regarding why certain evaluation criteria had been assigned a weight of zero in the comparative evaluation. The Project team clarified that there was no differentiation between alternative routes regarding impacts on traditional territory, as all proposed alternative routes traverse traditional territories and Treaty lands. These impacts were identified as a "common effect" across all

[7] Wabun Tribal Council was present at the Indigenous TAC for technical support by request of several of the Partner First Nations who are members of Wabun Tribal Council.

alternative routes and were not used as a differentiating factor in the comparative evaluation;

- Questions regarding the draft ESR review period and how confidential community Values and sensitive information shared during engagement would be protected and integrated into the evaluation process. The Project team clarified the proposed schedule for Partner First Nations' review of the draft ESR and noted that community Values will remain confidential based on OCAP principles; and
- Questions regarding how ongoing environmental field surveys are informing the Class EA and the protocols for managing Species of Concern (SCC) identified during studies. Partner First Nation's also sought clarification on how the Project will address the requirements of the newly enacted SCA in Ontario.

3.10.3.2. Agency technical advisory committee workshop #3

Attendees at Agency TAC #3 included 16 individuals representing the following organizations:

- City of Timmins;
- IO;
- Manitoulin-Sudbury District Services Board;
- MRCA;
- MCM;
- MNR;
- MECP;
- MTO;
- Municipality of Wawa;
- Township of Chapleau; and
- TC.

3.10.3.2.1. Moderated discussion

Key points of discussion during the workshop included:

- Copies of all technical studies completed to date were requested. The Project team provided status updates on the Cultural Heritage: Existing Conditions Report (CHEC) and the Stage 1 AA; and
- It was asked if the preferred route would be intersecting the City of Timmins' landfill site. The Project team confirmed that the preferred route does not intersect the municipal landfill site.

3.11. Indigenous communities

Indigenous consultation is a legal requirement rooted in the Crown's Duty to Consult (DTC), and where applicable, accommodate Indigenous communities when rights may be impacted by a proposed project. Consultation with Indigenous communities is also an important component of the engagement requirements of the Class EA for TF (2024).

The Crown's DTC requirements under Section 35 of the *Constitution Act*, 1982 may be discharged, partially or fully, concurrent with the Class EA process. While the Crown holds the honour and responsibility of ensuring meaningful consultation, it can delegate certain procedural aspects of the process to proponents. On December 31, 2024, a letter from the MEM provided specific delegation of procedural aspects of the Crown's DTC to Hydro One and identified the communities to be included in the consultation and engagement process to varying degrees in terms of Ontario's preliminary assessment of the level of consultation required (**Table 3-4**). See **Appendix B-4** for the Hydro One inquiry letter to the Crown and the Crown's DTC delegation letter.

Table 3-4: Communities identified in the Crown DTC delegation letter

Note: *First Nations Hydro One has partnered with for the Project

Community
Apitipi Anicinapek Nation (Wahgoshig First Nation)
Batchewana First Nation
Beaverhouse First Nation
Brunswick House First Nation*
Chapleau Cree First Nation*
Chapleau Ojibwe First Nation*
Flying Post First Nation*
Garden River First Nation
Matachewan First Nation*
Mattagami First Nation*
Métis Nation of Ontario Region 2, 3, and 4
Michipicoten First Nation*
Missanabie Cree First Nation*
Red Sky Métis Independent Nation
Taykwa Tagamou Nation*

Following Métis Nation of Ontario's notification in June 2025, Region 4 was included in the consultation process and added to all Project correspondence.

Engagement with Indigenous communities began in February 2025, prior to the formal commencement of the Class EA, and has continued throughout the EA process. The engagement program has been designed to be transparent, meaningful and iterative, structured around the recognition that Indigenous communities on the DTC delegation letter are not simply stakeholders to be consulted but have a role in defining development and future operation of the Project.

Section 3.11.1 describes the Indigenous engagement program and its outcomes as of June 5, 2026, organized around the key themes that have characterized the engagement:

- Hydro One's industry-leading 50-50 First Nation Equity Partnership Model (**Section 1.1**);

- The structures put in place to enable meaningful participation (**Section 3.11.1**);
- The routing study and the influence of engagement on alternative route development and selection of the preferred route (**Section 3.11.2**);
- Procurement and economic participation (**Section 3.11.2.4**);
- Employment and business opportunities (**Section 3.11.2.5**); and
- Vegetation management (**Section 3.11.2.6**).

Community-specific summaries are provided in **Section 3.11.5**.

3.11.1. Enabling meaningful engagement

Hydro One recognized from the outset that meaningful engagement with potentially affected Indigenous communities on a Project of this scale and significance required a proactive and collaborative approach that extended beyond notification and correspondence. Before and throughout the Class EA process, Hydro One implemented a range of engagement and capacity supports to help ensure potentially affected Indigenous communities had the information, resources, and access necessary to participate fully and meaningfully in the assessment process. These supports include Capacity Funding Agreements (CFAs), Partner First Nation Project Engagement Coordinators (PEC), the Indigenous Monitor program, and CISs, each of which are described in the subsections below. Taken together, they represent Hydro One's commitment to building a genuine working relationship with each Partner First Nation and the additional Indigenous communities included on the DTC delegation letter throughout the life of the Project.

3.11.1.1. Capacity funding agreements

Prior to the initiation of the Class EA, Hydro One offered CFAs to each of the nine Partner First Nations, either as new agreements or as addendums to existing multi-Project CFAs. CFAs were also offered to other Indigenous communities identified in the DTC delegation letter that expressed interest in participating. The CFAs are structured to support:

- Agreed-upon principles of consultation and engagement, tailored to each community's protocols and practices;

- Data privacy and sharing arrangements consistent with the OCAP principles governing Indigenous community information;
- Jointly agreed work plans and budgets to ensure communities have adequate capacity and resources to participate meaningfully in the Project; and
- A defined process for sharing Project information, including associated studies and regulatory processes.

Hydro One recognized that each community may wish to amend aspects of the agreement to reflect their respective positions and expectations for consultation, and communities were invited to propose revisions. CFAs were established with all Partner First Nations in 2025.

3.11.1.2. Project engagement coordinator

A central feature of the engagement model was the establishment of a PEC role within each Partner First Nation community, funded through the CFA. The PEC role, as envisioned by Hydro One, is to serves as the primary liaison between the community and the Hydro One Project team, ensuring that community concerns, questions, and interests are communicated directly and that Project information is disseminated to leadership and community members. PECs also identified opportunities for Hydro One to participate in community events such as Pow Wows and other gatherings, helping to embed the Project within the ongoing life of each community rather than treating engagement as a series of discrete events. The PEC helped strengthen relationships between Hydro One and Partner First Nations, supported the incorporation of Indigenous perspectives into Project planning, and contributed to a more accessible, collaborative, and community-driven engagement process.

Hydro One held biweekly PEC meetings with all Partner First Nations from June 19, 2025, onward, providing regular structured touchpoints for Project updates, upcoming engagement opportunities, and community feedback. Meeting materials were provided to all Partner First Nations following each session, including communities whose PEC was not yet in place, to ensure no community fell behind in their understanding of the Project's progress.

3.11.1.3. Indigenous monitor program

Hydro One offered all Indigenous communities on the DTC delegation letter the opportunity to engage Indigenous Monitors to participate directly in the ecological and archaeological field survey programs for the Project. This opportunity was designed to support meaningful community involvement in the technical studies that underpin the Class EA, to enable communities to observe and provide input on field methods and findings, and to build community capacity in environmental monitoring and archaeological studies over the long term.

To support communities in taking up this opportunity, Hydro One and Dillon hosted an Indigenous Monitor Ecology Training program in Sudbury from August 26 to 28, 2025, and May 5 to 7, 2026. Additionally, Hydro One, AECOM Canada ULC (AECOM), and Archaeological Research Associates Ltd. (ARA) hosted an Indigenous Monitor Archaeology Training program in South Porcupine from June 4 to 5, 2026. The trainings were designed to build practical knowledge and hands-on skills in environmental field monitoring AAs. The trainings were attended by representatives from multiple Partner First Nations. Participation in training programs is outlined in **Section 3.11.5**. Indigenous Monitor Agreements were executed with Partner First Nations to formalize the monitoring arrangements. All Partner First Nations have executed Indigenous Monitor Agreements with Dillon for the environmental program. As of June 5, 2026, Brunswick House First Nation and Chapleau Cree First Nation have executed an Archaeological Indigenous Monitor Agreement with ARA and Chapleau Cree First Nation was close to finalizing an Archaeological Indigenous Monitor Agreement with AECOM. Discussions are currently ongoing with the remaining Partner First Nations to execute these agreements with ARA and AECOM for the archeology program.

Representatives from Brunswick House First Nation, Chapleau Cree First Nation, Chapleau Ojibwe First Nation, Mattagami First Nation, Missanabie Cree First Nation, and Taykwa Tagamou Nation participated in ecological field surveys during the 2025 and/or 2026 field seasons. **Table 3-5** outlines all Partner First Nation participation in ecological field surveys as of June 5, 2026. While additional ecological field surveys were conducted for the Project, this table specifically highlights those where Partner

First Nations participated. The archaeological field surveys have been conducted every weekday (barring unforeseen circumstances) since early June 2026 and Indigenous Monitors from the Partner First Nations have participated frequently; therefore, this baseline participation is omitted from the table below.

Table 3-5: Indigenous Monitor ecological field survey participation dates for Partner First Nations

Date	Ecological field survey	Participating Partner First Nations
June 22 to 25, 2025	Marsh Bird and vegetation surveys	Chapleau Cree First Nation
June 27 and 28, July 14, 16 to 20, 22, 2025	Vegetation surveys	Chapleau Cree First Nation
August 12 to 14, 2025	Environmental Deoxyribonucleic Acid (eDNA) and watercourse crossing assessments	Chapleau Cree First Nation, Chapleau Ojibwe First Nation, and Taykwa Tagamou Nation
August 15 and 16, 2025	Watercourse crossing drone imaging and Bank Swallow surveys	Chapleau Ojibwe First Nation, and Taykwa Tagamou Nation
September 30 and October 1, 2025	eDNA, watercourse crossing assessments and ecological land classification (ELC) surveys	Chapleau Ojibwe First Nation, Mattagami First Nation, and Missanabie Cree First Nation
May 28 to 31, 2026	Basking Turtles, Bank Swallow surveys and eDNA sampling	Brunswick House First Nation, Chapleau Cree First Nation, Chapleau Ojibwe First Nation, Mattagami First Nation, and Taykwa Tagamou Nation

All Indigenous communities will continue to be invited to participate in ecological and archeological field surveys throughout 2026 and to review environmental field reports and AA materials as the Project advances.

3.11.1.4. Early engagement and community information sessions

Engagement with Partner First Nations began in February 2025, several months before the formal NoC was issued, through a series of calls, meetings, and informal touchpoints with the Partner First Nations. This pre-NoC engagement was designed to introduce the Project, begin building relationships, initiate discussions about the 50-50 First Nation Equity Partnership Model and collective structure, and gather early directional input from communities on routing before any formal alternative routes were developed.

As part of this pre-NoC engagement strategy, Hydro One offered to hold CISs with each of the Partner First Nations in April 2025. CISs were held in Brunswick House First Nation (April 9, 2025), Matachewan First Nation (April 10, 2025), Taykwa Tagamou Nation (April 11, 2025), Missanabie Cree First Nation (April 14, 2025), Chapleau Ojibwe First Nation (April 15, 2025), and Flying Post First Nation (April 15, 2025). Engagement with Chapleau Cree First Nation, Mattagami First Nation, and Michipicoten First Nation was conducted through calls and meetings rather than CISs during the pre-NoC period.

These early sessions were substantive discussions, not simply introductory briefings. Communities raised questions and provided input on a wide range of topics including routing preferences, vegetation management, environmental monitoring, employment and procurement opportunities, IK integration, and the structure of the 50-50 First Nation Equity Partnership Model. Key themes that emerged consistently across these early sessions included:

- Strong support for routing the transmission line along existing linear infrastructure, including existing transmission line corridors and Highway 101, to avoid opening greenfield corridors;
- The importance of avoiding the Chapleau Game Preserve, identified by multiple communities as a protected area within their traditional territory;
- Concerns about vegetation management along the ROW, particularly herbicide use including in particular near waterbodies and culturally important harvesting areas;

- The importance of meaningful employment and procurement opportunities for community members and Indigenous businesses; and
- The need to incorporate IK and community Values into the routing and Class EA process from the outset.

This early input directly shaped the routing study that followed, as described in **Section 3.11.2.1**.

An advanced NoC was provided to the Chiefs of all Partner First Nations on May 29, 2025.

Following the issuance of the NoC, Hydro One held a second round of CISs (CIS #2) with all Partner First Nations between January 14 and 29, 2026, comprising 12 sessions: community-specific sessions per Partner First Nation plus two joint sessions held in Sault Ste. Marie (January 14, 2026) and South Porcupine (January 21, 2026). CISs were organized as hybrid drop-in events to maximize participation for both on- and off-reserve community members. The location of each community-specific session was selected by the relevant Partner First Nation.

Presentation materials at CIS #2 covered the 50-50 First Nation Equity Partnership Model, Project overview, the Class EA process, the comparative evaluation framework, route refinements made in response to earlier engagement, environmental field studies to date, the integration of IK into the Class EA, Indigenous TAC milestones, and the Early Contractor Involvement (ECI) and EPC participation process. Community members were able to review and comment on the updated alternative route maps through tabletop mapping and via the interactive map, with tablets provided by Hydro One at each session.

On April 28, 2026, Hydro One sent the notice of the preferred route to Partner First Nations via email. Hydro One held a third round of CISs (CIS #3) with all Partner First Nations between May 11 and 29, 2026, comprising of 11 sessions: one community-specific session per Partner First Nation plus two joint sessions held in Sault Ste. Marie (May 11, 2026), and South Porcupine (May 25, 2026). CISs were organized as hybrid drop-in events to maximize participation for both on- and off-reserve community

members. The location of each community-specific session was selected by the relevant Partner First Nation.

Presentation materials at CIS #3 covered the 50-50 First Nation Equity Partnership Model, Project overview, the Class EA process, results of the comparative evaluation and selection of the preferred route, route refinements made in response to earlier engagement, environmental field studies to date, the integration of IK into the Class EA, Indigenous TAC milestones, and the ECI and EPC participation process. Community members were able to review and comment on the preferred route maps through tabletop mapping and via the interactive map, with tablets provided by Hydro One at each session.

Additional details on engagement at each community-specific CIS and project development based on feedback received from Partner First Nations are provided in the community summaries in **Section 3.11.5**.

3.11.1.5. Collective formation

Through discussions held from February 2025 to June 2026, seven of the nine Partner First Nations organized to form a formal Collective, known as the Seven Nations Transmission Line Partnership (7NTLP), establishing a unified structure through which they could collectively advance the Project, exercise shared leadership, and pursue participation in the 50-50 First Nation Equity Partnership Model. 7NTLP is composed of Brunswick House First Nation, Chapleau Ojibwe First Nation, Flying Post First Nation, Matachewan First Nation, Missanabie Cree First Nation, Mattagami First Nation and Taykwa Tagamou Nation.

Chapleau Cree First Nation and Michipicoten First Nation are advancing their participation in the Project and 50-50 First Nation Equity Partnership Model independently, outside of the 7NTLP structure. Both Partner First Nations remain full and equal equity partners in the Project, pursuing their interests directly while participating alongside the 7NTLP in shared decision-making related to the partnership and Project development. They continue to engage with Hydro One on all aspects of the Project, including partnership structure, procurement opportunities, and the Class EA process.

Key milestones in the formation of the 7NTLP included a leadership meeting in Toronto on July 30, 2025, at which next steps for the Project were discussed and interim funding arrangements were introduced, and a two-day leadership meeting in Sudbury on September 16 and 17, 2025, which specifically addressed the formation of the 7NTLP alongside Project updates. Hydro One provided examples of First Nation Collective structures for the 50-50 First Nation Equity Partnership Model to communities that requested them, to support informed decision-making about how the Collective would be organized. Following leadership meetings, Chapleau Cree First Nation and Michipicoten First Nation expressed their preference to engage independently from the 7NTLP.

The first meeting with the seven Partner First Nations intending to form a Collective occurred in Toronto on March 23 and 24, 2026, representing a significant milestone in the formalization of the 7NTLP structure. Between March and June 2026, the seven Partner First Nations worked together to determine the governance structure and team that would support the 7NTLP. Hydro One maintains ongoing consultation and engagement with Chapleau Cree First Nation and Michipicoten First Nation on the Project and equity partnership arrangements in parallel with the 7NTLP, recognizing that both Partner First Nations are engaging independently with distinct requirements and timelines.

3.11.2. Core themes of Indigenous consultation and engagement

The following sections describe the core themes that have defined Indigenous consultation and engagement on the Project as of June 5, 2026. These themes emerged organically from the engagement process reflecting the issues and interests that Indigenous communities identified as most important from the earliest stages of pre-NoC engagement through to the completion of the Class EA.

The comparative evaluation and the influence of community input on route development and the selection of the preferred route is addressed first, as it represents the most direct connection between engagement outcomes and Project decisions. Procurement and economic participation follows, reflecting the consistent message from Partner First Nations that the 50-50 First Nation Equity Partnership Model must translate into tangible

economic benefits for their communities and future generations. Vegetation management is addressed last, reflecting a topic on which sustained community engagement has produced a clear and documented commitment from Hydro One.

Community-specific summaries are provided in **Section 3.11.5**.

3.11.2.1. Routing study

The routing study for the Project was carried out by Dillon on behalf of Hydro One, commencing in March 2025. The study applied a least cost path modelling approach to identify technically feasible alternative routes within a preliminary general Project area, which were then refined through engagement with Partner First Nations, evaluated against jointly developed criteria, and used to select a preferred route.

Partner First Nations were involved at each stage of this process, from the initial definition of constraints and opportunities through to the final evaluation.

Prior to the commencement of the routing study, Hydro One held early discussions with all Partner First Nations to gather initial input on routing. This input was provided before any formal alternative routes were developed and was used to shape the preliminary constraint mapping and general Project area that formed the foundation of the least cost path modelling.

Partner First Nations provided key inputs that were incorporated into the preliminary constraint mapping which included:

- The Chapleau Game Preserve was identified by multiple Partner First Nations as a no-go area for the transmission line route. This constraint was incorporated into the preliminary mapping, and all alternative routes were developed to avoid the Chapleau Game Preserve; and
- Partner First Nations expressed a strong preference for the route to follow existing linear infrastructure wherever possible, including the existing 115 kV transmission lines connecting Chapleau to Wawa and extending from Timmins toward Foleyet. This preference was reflected in the identification of existing linear infrastructure as an opportunity feature in the constraint mapping.

Using the preliminary constraint mapping informed by Partner First Nations, Dillon applied a modelling software that employs a “least cost path” approach to generate a set of preliminary alternative routes within the general Project area.

The preliminary alternative routes were shared with all Partner First Nations in April and May 2025 through a series of CISs and direct conversations. Presentations described the routing study methodology, the constraints and opportunities incorporated into the modelling, and the resulting preliminary alternative routes. Community members were given the opportunity to identify any additional community Values, constraints, or concerns that should be considered as the study advanced.

Prior to issuing the NoC, Hydro One held a meeting with the Chiefs and leadership of all Partner First Nations in late May 2025 to confirm whether any of the preliminary alternative routes presented major concerns that would preclude their use as the starting point for the Class EA (e.g., routing through the Chapleau Game Preserve). No major concerns were identified. The NoC was subsequently issued, with the preliminary alternative routes incorporated as the initial set of alternative routes for the Class EA.

3.11.2.2. Route refinements in response to engagement

Following the issuance of the NoC, ongoing engagement with Partner First Nations generated several route refinements. Hydro One invited Partner First Nations to share community Values mapping early in the routing study. Due to several factors, much of this information was not available until after the issuance of the NoC. Community Values mapping shared with Hydro One throughout the summer and fall of 2025 identified a range of cultural, ecological, and traditional use Values across traditional territories. The community Values data offered new insights into opportunities to avoid key areas of importance on the land.

New information came to light in the summer of 2025 including the newly approved Addition to Reserve (ATR) Lands belonging to Chapleau Cree First Nation. Alternative routes A1 and A2, in a section of the corridor where there was a single viable path, crossed through ATR lands that had been formally granted to Chapleau Cree First Nation in spring 2025. These ATR lands had not been captured in the preliminary constraint mapping used for the least cost path modelling, as the transfer had occurred

after the initial constraint mapping was completed. Shapefiles of the ATR lands were shared with Hydro One, which allowed for their consideration for potential route refinements.

Hydro One and Dillon engaged in a detailed review of the community Values mapping and ATR lands throughout the fall of 2025, holding multiple discussions with Partner First Nations and their PECs to explore routing options that could reduce potential effects to identified community Values and reserve lands. A key concern identified through these discussions was all the alternative routes (B1, B2, B3, B4 and B5) that crossed through an area south and east of Borden Lake that several Partner First Nations identified as a part of their traditional territory. This area had also been flagged as important to members of the general public during COH #1 in July 2025 (alternative routes B1 and B2, specifically).

In response to this engagement, Hydro One and Dillon developed new alternative routes specifically designed to address both the ATR land conflict (changes to alternative routes A1 and A2) and the community Values identified in the Borden Lake area (alternative routes B1, B2 and B3). The revised A1 and A2 alternative routes parallel an existing transmission line further east than originally proposed until they are east of the Chapleau Cree First Nation reserve at which point they turn south, avoiding the ATR lands entirely. The revised B1, B2 and B3 alternative routes bring the proposed transmission line further south of Borden Lake before traversing east, reducing potential impacts on the community Values identified. The new alternative routes were reviewed with Partner First Nations and their PECs in November and December 2025. Partner First Nations indicated the revised alternative routes could be viable solutions, while noting that they would require further review by their communities.

The updated alternative routes, incorporating all route refinements developed through the engagement, were presented to each Partner First Nation at CISs held between January 14 and 29, 2026. Additional details on engagement at each community-specific CIS are provided in the community summaries in **Section 3.11.5**.

Community members were given the opportunity to review the revised alternative routes through tabletop mapping and an interactive map, and to provide comments on whether

any further refinements were needed. While no communities provided endorsement of any specific alternative route, no major concerns were identified with the proposed set of alternatives that would preclude Hydro One from proceeding to the evaluation stage. Input received at CIS #2 was incorporated into the comparative evaluation.

3.11.2.3. Evaluation and selection of the preferred route

In parallel with the comparative evaluation and refinement process, a TAC was established for Partner First Nations to provide direct input into the criteria and weightings used to evaluate the alternative routes. The TAC focused on the Indigenous Culture, Values, and Land Use evaluation category, while also providing input on the Natural Environment and Socio-Economic Environment categories from an Indigenous perspective and is discussed in detail in **Section 3.10**.

The comparative evaluation proceeded using the jointly developed framework, with the understanding that an effects assessment will be carried out for the preferred route following its selection. Following CIS #2 and COH #2 held in January/February 2026, Hydro One completed the comparative evaluation of alternative routes using the criteria, metrics, and weightings developed jointly through the Indigenous TAC for Partner First Nations and Agency TAC processes. The comparative evaluation assessed each alternative route against the Indigenous Culture, Values, and Land Use; Natural Environment; Socio-Economic Environment; and Technical and Cost Considerations categories.

The preferred route was selected through the comparative evaluation and was announced to Partner First Nations on April 28, 2026, prior to the public announcement. The preferred route was developed through a process of meaningful engagement with Partner First Nations and reflects the full body of routing input received throughout the Class EA, including the community Values-based route refinements developed through detailed engagement with Partner First Nations.

The preferred route avoids the Chapleau Game Preserve, makes extensive use of existing linear infrastructure as requested by the Partner First Nations, and incorporates the new alternative routes developed in the Chapleau area in response to ATR lands

and community Values mapping provided by Partner First Nations during the route refinement process.

CIS #3, held in May 2026, provided Partner First Nations with the opportunity to review the preferred route, ask questions, and provide comments before the Class EA advanced to the next stage. No major concerns with the preferred route were raised throughout CIS #3.

Additional details on engagement at each community-specific CIS are provided in the community summaries in **Section 3.11.5.**

3.11.2.4. Procurement and economic participation

Economic participation in the construction and long-term operation of the Project has been a central discussion with all Partner First Nations since the earliest stages of engagement. Hydro One is committed to meaningful Indigenous involvement in the procurement process, including the selection of the EPC contractor, and to maximizing Indigenous employment and business opportunities throughout the life of the Project. Partner First Nations have been clear from the outset that the 50-50 First Nation Equity Partnership must translate into tangible economic benefits for their communities, not just ownership on paper.

3.11.2.5. Indigenous employment and business opportunities

Employment and procurement opportunities for community members and Indigenous businesses have been among the most consistently raised issues at CISs, leadership meetings, and PEC meetings throughout the engagement process. Some Partner First Nations have emphasized that meaningful participation in the Project must extend beyond ownership to include direct employment during construction, involvement in environmental and archeological monitoring and field studies, and access to subcontracting and procurement opportunities.

Hydro One emailed all Partner First Nations in February 2026 requesting that they share their community and individual business directories to support identification of procurement opportunities. Several Partner First Nations confirmed they would continue to develop their business registries in response. Mattagami First Nation had proactively

provided a business registry as early as September 2025 and raised questions about employment and training opportunities with Hydro One.

Recurring themes raised by communities on employment and procurement included:

- The importance of ensuring Indigenous businesses can compete for subcontracting opportunities regardless of union membership requirements;
- Opportunities for youth employment and summer students in environmental field surveys and construction; and
- Training pathways that build long-term community capacity rather than providing short-term project-specific work.

Taykwa Tagamou Nation specifically raised the need for Hydro One to facilitate access to unionized work for non-unionized Indigenous businesses and indicated that union requirements that effectively exclude Indigenous businesses from bidding would not be supported.

The Indigenous Monitor Ecology Training program held in Sudbury in August 2025, and May 2026 was one tangible step toward building the community capacity needed to take advantage of employment opportunities during the field programs.

Additionally, an Indigenous Monitor Archaeology Training was held in South Porcupine from June 4 to 5, 2026, to support additional community capacity for future employment opportunities.

Hydro One will continue to work with Partner First Nations to identify and develop employment and procurement pathways as the Project advances toward construction.

3.11.2.6. Vegetation management

Vegetation management along the transmission ROW has been an important and recurring topic of discussion with all Partner First Nations beginning in the earliest stages of pre-NoC engagement in early 2025. Communities, particularly those with direct experience of forestry industry operations in northern Ontario, raised concerns about the prospect of herbicide use as a vegetation management tool and the potential for aerial spraying along the corridor. These concerns were raised consistently across

multiple communities and engagement settings, and have shaped Hydro One's commitments on this issue throughout the Class EA.

In response to community concerns, Hydro One's vegetation management specialists provided detailed presentations to all Partner First Nations describing Hydro One's Integrated Vegetation Management (IVM) strategy. These presentations were delivered at the leadership meeting in Sudbury on September 16 and 17, 2025, and through subsequent community-specific discussions.

The IVM program is based on a "right tool, right time, right location" approach that uses a combination of mechanical methods (e.g. hand cutting, brush saws, chainsaws, and mowing equipment) and selective, targeted herbicide application where site conditions warrant. Key clarifications provided to communities included:

- Hydro One does not use aerial spraying for vegetation management on its transmission ROW. This was identified as a critical distinction for communities whose concerns were substantially informed by experience with forestry operations in northern Ontario, where aerial spraying is a common practice;
- Herbicide application under the IVM program is selective and targeted, not broadcast. The approach is designed to promote compatible low-growing vegetation rather than repeatedly clearing all vegetation indiscriminately; and
- The IVM approach supports biodiversity on the ROW over time by establishing stable plant communities of compatible species, reducing the need for repeated intensive clearing.

Hydro One presented analysis demonstrating that a mechanical-only approach that avoids herbicide use entirely carries significantly higher long-term costs and produces poorer ecological outcomes than IVM across the life of the Project.

Hydro One also presented research findings demonstrating that selective, science-based IVM supports native plant communities, bird habitat, and pollinator populations on transmission line ROW, and that repeated mechanical clearing tends to promote invasive species and reduce biodiversity by removing compatible vegetation along with incompatible species indiscriminately.

Despite the clarifications provided regarding the IVM strategy and the confirmation that aerial spraying is not part of Hydro One's approach, the Partner First Nations have largely maintained their position that they do not wish to see any herbicide use associated with the Project.

Hydro One respects this position. Hydro One has committed to not using herbicides unless it is jointly determined with the Partner First Nations to be appropriate in specific and defined circumstances. If Partner First Nations maintain their current position throughout the life of the Project, that commitment stands.

3.11.3. Review of the draft Environmental Study Report

Partner First Nations were presented the opportunity to review and provide comments on the draft ESR prior to the public release. Every chapter of the draft ESR was sent to Partner First Nations in batches between May and August 2026. Comments received will be integrated into the final ESR where applicable, and formal responses will be provided back to the Partner First Nations for all comments submitted.[8]

The draft ESR was also sent to Métis Nation of Ontario for review between July and August 2026.

3.11.4. Early contractor involvement

The ECI model follows a staged approach to selecting an EPC contractor for the Project. In early 2026, ECI contracts were awarded to Victor Energy Ltd. (Victor) and Valard Construction LP (Valard), who are competing for the final EPC contract to be awarded in late 2026.Throughout the ECI process, ECIs will engage Indigenous communities early and often to inform Project development and opportunities. To support Project success, ECIs will share the most current Project information with Partner First Nations and seek their input on development and economic participation opportunities. ECIs will be required to develop an Indigenous Engagement Participation Plan (IEPP) for submission to Hydro One, with dedicated resources to support engagement and procurement. While the IEPP will be informed by procurement

[8] Note: This sentence is a placeholder for the draft ESR. Discussions and comment responses with Indigenous communities are ongoing.

negotiations with Partner First Nations, it will not be jointly developed with them. The goal of the IEPP will be to maximize and collaborate on opportunities in:

- Training and skills development;
- Employment;
- Procurement of goods and services; and
- Business development.

ECIs will be responsible for gathering and incorporating input from Partner First Nations throughout the ECI process and must demonstrate how input will be incorporated into their Request for Proposal (RFP) deliverables. Monthly reporting and commitment tracking will also be required from ECIs. Finally, ECIs will be required to host engagement sessions with all Partner First Nations to support the development of the IEPP. Partner First Nations input will be considered in the selection of the EPC contractor for the Project. As well, Partner First Nation monitors will be provided the opportunity to participate during construction of the Project.

3.11.5. Community summaries

The following sections provide a summary of engagement with each Indigenous community identified on the Crown DTC delegation letter. For Partner First Nations, the summaries focus on community-specific issues, concerns, and interests raised throughout the engagement process, drawing out content from collective meetings, CISs, and bilateral discussions that is specific to each Partner First Nation.

Activities that were common to all Partner First Nations including participation in the biweekly PEC meetings, invitations to environmental field surveys, leadership meetings, and collective-level correspondence are described in **Sections 3.11.1** through **3.11.4** and are not repeated in full here. For non-partner communities, a summary of engagement undertaken as of June 5, 2026, is provided.

3.11.5.1. Apitipi Anicinapek Nation (Wahgoshig First Nation)

Apitipi Anicinapek Nation was identified on the Crown DTC delegation letter as a community to be engaged on the Project. Hydro One emailed the Chief of Apitipi

Anicinapek Nation on June 6, 2025, introducing the Project and providing an advanced copy of the NoC.

Hydro One called the Economic Development Officer of Apitipi Anicinapek on October 7, 2025, to provide a Project briefing, outlining the need for the Project and upcoming milestones. Apitipi Anicinapek noted they would reach out to Hydro One should they be interested in formally engaging on the Project. Hydro One emailed the Chief of Apitipi Anicinapek Nation on May 12, 2026, announcing the selection of the preferred route for the Project. Maps displaying the preferred route, and a link to the Project website were also shared. Additionally, Hydro One proposed a meeting to discuss the preferred route and answer any questions Apitipi Anicinapek Nation may have.

Engagement with Apitipi Anicinapek Nation as of June 5, 2026, has been limited. Hydro One remains committed to meaningful engagement with the community and will continue to seek opportunities to provide Project updates and gather community input as Project planning advances.

3.11.5.2. Batchewana First Nation

Batchewana First Nation was identified on the Crown DTC delegation letter as a community to be engaged on the Project. Hydro One emailed the Chief of Batchewana First Nation on June 6, 2025, introducing the Project, providing an advanced copy of the NoC.

Engagement advanced more substantively in late 2025 and early 2026. A meeting was held on November 3, 2025, during which Hydro One and Batchewana First Nation reviewed the NoC and the Project delegation list. Hydro One proposed amending Batchewana First Nation's existing multi-project CFA to include the Project. Options for equity partnership and non-equity participation were also discussed.

A further meeting was held on March 4, 2026, following coordination through the Prospectors and Development Association of Canada (PDAC) convention. During this meeting, Batchewana First Nation presented territorial mapping and historical context indicating that the Project falls within their traditional lands. Hydro One explained the MEM has classified Batchewana First Nation as a lower-impact community for the Project and encouraged the community to re-engage with the MEM to update their

assertions if they believe the classification does not accurately reflect their treaty rights and interests in the general Project area. Batchewana First Nation agreed to provide Hydro One with an update following their next meeting with the MEM.

Hydro One emailed the Chief, and technical administrative support of Batchewana First Nation on May 12, 2026, announcing the selection of the preferred route for the Project. Maps displaying the preferred route, and a link to the Project website were also shared. Additionally, Hydro One proposed a meeting to discuss the preferred route and answer any questions Batchewana First Nation may have.

3.11.5.3. Beaverhouse First Nation

Beaverhouse First Nation was identified on the Crown DTC delegation letter as a community to be engaged on the Project. Beaverhouse First Nation has engaged substantively on the Project, including raising questions regarding its exclusion from the 50-50 First Nation Equity Partnership.

Hydro One emailed the Chief of Beaverhouse First Nation on June 6, 2025, introducing the Project and providing an advanced copy of the NoC. In response to the Project NoC, Beaverhouse First Nation, represented by Bell and Bernard Limited as an Energy and Business Advisor, requested an initial Project meeting which was held on July 16, 2025.

During that meeting, Beaverhouse First Nation raised concerns about why it had not been identified as a Partner First Nation, given what it described as comparable rights to other communities and its geographic proximity to the Project. Beaverhouse First Nation noted it is working with elders and leadership to define community boundaries extending to the South Porcupine area and requested the Crown delegation letter, the Class EA guidance document, and a draft CFA. Beaverhouse First Nation also shared past negative experiences with external consultants, including concerns about errors in SAR reporting, and damage to turtle nesting areas and monarch butterfly habitat. Hydro One noted they would provide opportunities for the community to participate in future ecological field surveys.

Hydro One confirmed in September 2025 that it was unable to offer equity partnership to Beaverhouse First Nation, given the MEM’s designation of the community as lower-

impact but reaffirmed its commitment to delivering meaningful benefits through continued meaningful engagement. Hydro One encouraged Beaverhouse First Nation to re-engage with the MEM regarding its designation.

Hydro One emailed the Chief of Beaverhouse First Nation on May 12, 2026, announcing the selection of the preferred route for the Project. Maps displaying the preferred route, and a link to the Project website were also shared. Additionally, Hydro One proposed a meeting to discuss the preferred route and answer any questions Beaverhouse First Nation may have.

Table 3-6: Summary of non-confidential Beaverhouse First Nation comments and concerns received up to June 5, 2026

Theme	Question/Comment	Response
Equity Partnership	Why was Beaverhouse First Nation not considered as a Partner First Nation?	The current government classification of Beaverhouse First Nation is noted as a low-impact community. Hydro One cannot provide equity ownership to Beaverhouse First Nation on the Project but remains committed to delivering meaningful benefit to Beaverhouse First Nation.
First Nations	Has a formal Indigenous Rights Assessment been completed yet to see how the Project might affect Indigenous rights in the area?	Hydro One does not independently conduct formal Rights Assessments, as the determination of Aboriginal and treaty rights within the general Project area is under the jurisdiction of the Crown. However, Hydro One is actively executing the procedural aspects of the DTC, as delegated by the MEM. To support this process and ensure a proper understanding of local land use, Hydro One has offered funding to all identified Indigenous communities to provide community Values for consideration in the Project's routing. The information, feedback, and insights gained from these discussions were directly integrated into the Project's EA and routing study to identify, mitigate, and avoid potential impacts on rights and traditional practices.
General Project Information	What is the anticipated capital expenditure for the Project?	At this time, capital expenditure for the Project is unknown.
Natural Environment Existing Conditions and Potential Impacts	What is the level of impact from the Project considering the following: Small impact would be using the existing ROW. Medium is using brownfield and large is greenfield?	The Project is classified as a high-impact (greenfield) initiative. Consequently, it is undergoing a Class EA process, through which meaningful engagement and consultation with potentially affected Indigenous communities remains a top priority for Hydro One. Throughout the lifecycle of the Project, Hydro One has committed to working closely with these communities to share information, gather local knowledge, and integrate valuable feedback. To minimize the overall footprint and mitigate environmental and land-use impacts, Hydro One prioritizes opportunities to parallel existing ROW and linear infrastructure wherever technically and environmentally feasible across the final alignment. Approximately 150 km of the preferred route will either repurpose abandoned transmission corridors or existing transmission lines, roadways, or railways with sufficient setbacks.
Natural Environment Program	Will natural environment reports be shared in a timely manner to ensure Indigenous communities have adequate time to review and provide comments before the selection of the preferred route for the Project?	Hydro One recognizes the importance of early information sharing to support meaningful community reviews. To ensure feedback could directly influence the routing process, the preliminary evaluation criteria was shared with Partner First Nations to inform preliminary refinements ahead of the selection of the preferred route. Feedback received through engagement with Partner First Nations, and relevant agencies and directly impacted landowners shaped refinements displayed during COH #2 in February 2026. On a community-specific level, Beaverhouse First Nation was invited to participate in the ecological field surveys conducted as part of the natural environment program. Hydro One will continue to identify opportunities for participation of Indigenous communities on the Project.

3.11.5.4. Brunswick House First Nation

Brunswick House First Nation is one of the nine Partner First Nations and was identified on the Crown DTC delegation letter as a community to be engaged on the Project. Brunswick House First Nation participated actively in the 50-50 First Nation Equity Partnership and 7NTLP formation discussions throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025 Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026.

A Councillor and the Lands and Resources Manager were identified as community contacts with community Values mapping to share. Brunswick House First Nation also recommended that Hydro One connect with Wahkohtowin Development GP Inc (Wahkohtowin Development), who was leading height-of-land studies on behalf of Brunswick House First Nation, Chapleau Cree First Nation, and Chapleau Ojibwe First Nation.

A notable concern was raised by the Chief of Brunswick House First Nation at the July 30, 2025, leadership meeting related to remote power disconnections impacting the community during a community crisis, and the community questioned its partnership with Hydro One considering these operational issues.

Brunswick House First Nation appointed a PEC in September 2025 and has participated in the biweekly PEC meeting series. Brunswick House First Nation also participated in the Indigenous Monitor Ecology Training programs in Sudbury in August 2025 and May 2026, as well as the Archaeology Training program in June 2026. Brunswick House First Nation executed an Indigenous Monitor Agreement on November 5, 2025. Brunswick House First Nation has additionally executed an Archaeology Indigenous Monitor Agreement with ARA on May 30, 2026.

Brunswick House First Nation participated in the following CISs:

- April 9, 2025: Pre-NoC community-specific CIS #1 in community. Questions/concerns raised included the importance of the Chapleau Game Preserve to the community as part of Brunswick House traditional territory; general support for routing along existing transmission corridors and roads; the significance of wetlands and the medicines they contain; concerns about Electromagnetic Fields (EMFs) and requests that the transmission line maintain distance from the reserve; interest in employment opportunities for community members; and a question about the volume of forest clearing associated with the ROW;
- June 20, 2025: Community-specific CIS #1 in Timmins. No written or verbal comments were recorded during this session;
- June 24, 2025: Community-specific CIS #1 in Sudbury. No written or verbal comments were recorded during this session;
- January 14, 2026: Joint CIS #2 in Sault Ste. Marie. Questions and concerns raised included the voltage requirements and destination of power; herbicide management along the ROW corridor; and anticipated impacts to the natural environment and Indigenous land use;
- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns raised included potential impacts to spirit moose; youth engagement and employment opportunities; how Hydro One responds when community concerns are overlooked by municipalities; and how route planning will avoid historic open-pit mines;
- January 29, 2026: Community-specific CIS #2 in Chapleau. Questions and concerns raised included employment and training opportunities, the AA process; incorporation of IK; potential impacts to spirit moose and Indigenous culture and land use;; technical Project details including voltage requirements; and implications of the Project in relation to the Ring of Fire; and
- May 22, 2026: Community-specific CIS #3 in Chapleau. Questions and concerns raised included paralleling existing transmission corridors; the integration of

community Values into the comparative evaluation of alternative routes for the Project; and environmental surveys for the Project.

Hydro One identified action items to improve communication and payment processes to prevent further disconnections. This concern is unrelated to the Class EA but reflects the broader relationship context that Hydro One has committed to addressing.

On February 21, 2026, Brunswick House First Nation confirmed it was finalizing its community and individual business list for procurement purposes.

Since Spring 2025, Dillon has and continues to correspond with Brunswick House First Nation regarding Indigenous Monitor participation in ecological field surveys. Environmental field survey plans have and continue to be distributed to Brunswick House First Nation. A Brunswick House First Nation Indigenous Monitor has participated in the following ecological field surveys.

Table 3-7: Indigenous Monitor ecological field survey participation dates for Brunswick House First Nation

Date	Ecological field survey
May 29 to 31, 2026	Basking turtles, bank swallow surveys and eDNA sampling

Hydro One continues to engage with Brunswick House First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation’s interest, concerns or position, and does not limit any Nation’s right to be consulted.

Table 3-8: Summary of non-confidential Brunswick House First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Comparative Evaluation	Has Brunswick House First Nation provided community Values to inform the comparative evaluation for the Project?	Brunswick House First Nation provided feedback on the evaluation criteria for the Project during Indigenous TAC workshop #2. This input was integrated and carefully considered within the Project's comparative evaluation process. Brunswick House First Nation's feedback is outlined in **Appendix B-5**.
Consultation and Engagement	Will all community members have access to respond to Indigenous TAC workshop surveys?	Hydro One opened the survey for completion by community members of the Partner First Nations.
Employment Opportunities	How will the PEC position function for the Project? Who is eligible to apply?	Each Partner First Nation has a PEC, funded through the CFA. The PEC functions as the community's designated point of contact and primary liaison with the Hydro One Project team. The role supports the sharing of Project information, communication of community questions, concerns, and interests, and coordination of engagement opportunities, including Hydro One participation in community events where appropriate. Hydro One holds regular PEC meetings with Partner First Nations to provide Project updates, discuss upcoming engagement opportunities, and receive community feedback. Each Partner First Nation determines internally who will serve as their PEC.
Natural Environment Program	Why do the ecological field surveys include tracking and collecting data on migratory birds?	Ecological field surveys include data collection for migratory birds to determine the presence or absence of species listed under Schedule 1 of the SARA and to accurately characterize SWH. Under the Natural Environment criteria, the identification and assessment of SWH form a component of the Project's comparative evaluation process.
Routing	Why does Segment B of the preferred route not parallel an existing transmission corridor?	Although the preferred route in in Segment B follows Highway 101 less closely than the other options considered in this segment, it still scored the best across all four evaluation categories. As a result, it was selected as part of the preferred route for Segment B. We care about people and know that this route will impact significantly less properties than the other options considered. This route also means we can avoid a significant amount of moose habitat compared to the other options. As well, this route is favoured from an Indigenous Culture, Values, and Land Use perspective, which typically includes criteria relating to culturally important sites and activities. From a constructability and technical perspective, we are planning to use existing access wherever possible to minimize impacts, of which we know there are many logging roads in this area.

3.11.5.5. Chapleau Cree First Nation

Chapleau Cree First Nation is one of the nine Partner First Nations and was identified on the Crown DTC delegation letter as a community to be engaged on the Project. Given the significant effects that the transmission line will have on Chapleau Cree First Nation's asserted traditional territory as determined by Chapleau Cree First Nation, the Nation has assembled a Project Engagement Coordination team which comprises the Chief, Deputy Chief and PEC Liaison for the Project. Chapleau Cree First Nation has decided to engage one-on-one with Hydro One rather than participation in group settings with other Partner First Nations. Hydro One has respected this preference. Chapleau Cree First Nation participated in the February 19, 2025, and July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, and the September 16 and 17, 2025, Sudbury leadership meeting, prior to deciding to engage independently.

During the pre-NoC period, engagement with Chapleau Cree First Nation was conducted through a series of calls and informal meetings rather than an in-community session.

Engagement with Chapleau Cree First Nation has been extensive and substantive, driven primarily by modifications related to the ATR lands and the community's Values and traditional knowledge mapping, which had a direct influence on the comparative evaluation and the development of the preferred route. These are described in detail in **Section 3.11.2** and are summarized here in community-specific context.

Initial engagement focused on concerns about impacts to traditional territory and associated accommodation, mapping sources and baseline environmental understanding, as well as a recommendation that Hydro One engage with Wahkohtowin Development, as a representative of shared Chapleau Cree First Nation, Missanabie Cree First Nation, and Brunswick House First Nations' interests.

Following further discussions regarding the comparative evaluation framework for the Project, Chapleau Cree First Nation requested a summary of the criteria and weighting used for evaluating alternative routes.

In June 2025, Chapleau Cree First Nation noted concerns with start times for ecological field surveys throughout the Project, noting difficulty in arriving to sites on time given the large span of the general Project area. Dillon has acknowledged these concerns throughout the Project noting certain ecological field surveys, such as those for breeding birds, require early start times, as per designated protocols. Dillon has offered to brief Chapleau Cree First Nation on survey results.

A meeting was held on June 26, 2025, to discuss route refinements, ATR lands, and Project financing. On June 27, 2025, Chapleau Cree First Nation provided an Areas of Interest document to Hydro One.

Chapleau Cree First Nation assembled a PEC team in June 2025 and a representative has participated in the biweekly PEC meeting series. Chapleau Cree First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Chapleau Cree First Nation executed an Indigenous Monitor Agreement on July 15, 2025. Chapleau Cree First Nation has additionally executed an Archaeology Indigenous Monitor Agreement with ARA on June 29, 2026.

Following notification in July 2025 that an alternative route crossed through ATR lands formally granted to Chapleau Cree First Nation in spring 2025, extensive engagement was undertaken through the fall of 2025 to address this conflict and to incorporate Chapleau Cree First Nation's community Values and traditional knowledge mapping. This included:

- Multiple meetings and correspondence between Hydro One, Dillon and the Chapleau Cree First Nation Project Engagement Team through July to November 2025;
- Provision of community Values mapping by in August 2025, identifying community Values, traditional knowledge, and recommended buffer zones;
- Provision of IK mapping for the Chapleau Game Preserve in September 2025;
- A formal letter from Chapleau Cree First Nation on November 17, 2025, requesting the removal of alternative routes B2 and B3 and a southward shift of

alternative routes B4 and B5 to address concerns related to Treaty and governance rights in the community's traditional territory; and
- Ongoing discussions throughout the fall of 2025 to develop a new alternative route south of Borden Lake that addressed both the ATR land conflict and the identified community Values.

Chapleau Cree First Nation indicated in November 2025 that the new alternative routes could be a viable solution, while noting that further engagement with the community would be required.

Chapleau Cree First Nation's Project Engagement Team noted on December 12, 2025, that Chapleau Cree First Nation would not be in support of any alternative route until the requirements outlined in the November 17, 2025, letter were met.

Chapleau Cree First Nation provided comments on the draft CHEC report in April 2026. Chapleau Cree First Nation noted concerns that the report did not adequately reflect Indigenous cultural heritage, historic use, and occupation of the land or important sites. Chapleau Cree First Nation noted concerns that the draft CHEC report was written primarily from a colonial/Crown perspective. Chapleau Cree First Nation offered to share resources with Hydro One to further expand the report to reflect the Nation's history and perspective. Chapleau Cree First Nation has provided input on important waterways and waterbodies as part of its input on the CHER. Chapleau Cree First Nation began working with AECOM to revise the CHEC report to reflect conversations held between Chapleau Cree First Nation and Hydro One. Those discussions remain ongoing as of June 5, 2026.

Chapleau Cree First Nation participated in the following CISs:

- January 14, 2026: Joint CIS #2 in Sault Ste. Marie (47 attendees). Questions and concerns raised included the basis for Partner First Nation ownership being listed as 49.997 percent; the voltage requirements and destination of power; herbicide management along the corridor; and anticipated impacts to the natural environment and Indigenous land use;
- January 23, 2026: Community-specific CIS #2 in community (38 attendees). Questions and concerns raised included the implications of Bill C-5 on the

Project; employment and training opportunities for community members; the use of herbicide spraying for the Project; and the implications of the Project in relation to the Ring of Fire;

- May 11, 2026: Joint CIS #3 in Sault Ste. Marie (22 attendees). Questions and concerns raised included the use of Light Detecting and Ranging (LiDAR) technology and drones for archaeological or geotechnical work; as well as the ECI selection process; and
- May 21, 2026: Community-specific CIS #3 in community (26 attendees). Questions and concerns raised included employment and training opportunities for community members; the use of herbicide spraying for the Project; and the management of the ROW.

Discussions regarding the 50-50 First Nation Equity Partnership Model and financing for the Project are ongoing, with Chapleau Cree First Nation engaging independently of the 7NTLP on these matters.

Since Spring 2025, Dillon has and continues to correspond with Chapleau Cree First Nation regarding Indigenous Monitor participation in environmental field surveys. Environmental field surveys plans have and continue to be distributed to Chapleau Cree First Nation. A Chapleau Cree First Nation Indigenous Monitor has participated in the following ecological field surveys.

Table 3-9: Indigenous Monitor ecological field survey participation dates for Chapleau Cree First Nation

Date	Ecological field survey
June 22 to 25, 2025	Marsh bird and vegetation surveys
June 27 and 28, July 14, 16 to 20, 22, 2025	Vegetation surveys
July 14, 16 to 20, 22, 2025	Vegetation surveys
August 13, 2025	eDNA and watercourse crossing assessments
May 30 and 31, 2026	Basking turtles, bank swallow surveys and eDNA sampling

Hydro One continues to engage with Chapleau Cree First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Table 3-10: Summary of non-confidential Chapleau Cree First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Comparative Evaluation	Concerns expressed regarding the use of a computer algorithm-based approach to evaluate alternative routes with equal weighting across all Partner First Nations.	Hydro One acknowledged the concern regarding the use of a computer-based approach to evaluate alternative routes. Hydro One's routing software does not automatically assess, rank, or select routes. It is a planning tool that helps identify potential alternative routes by integrating data layers from Indigenous communities, agencies, municipalities, public and commercial datasets, site-specific studies, and stakeholders. The outputs from this software are reviewed and refined using professional judgment, technical expertise, and input received through engagement. The final route evaluation is completed through a documented MCDA process, which compares alternative routes against approved criteria using both quantitative information and qualitative assessment. The final route evaluation was undertaken in consultation with Chapleau Cree First Nation in regard to its traditional territory.
Comparative Evaluation	Can additional criteria be suggested for inclusion in the comparative evaluation to reflect First Nation’s traditional territories and asserted rights?	Hydro One welcomes the suggestion of additional criteria, as input from Partner First Nations. To support collaboration, Hydro One provided the complete list of criteria used in the comparative evaluation. The overarching evaluation methodology, which explains how these criteria are structured and balanced throughout the routing study, is outlined in **Section 5.0**.
Comparative Evaluation	Can indicator species for overall boreal forest health be included as a criterion in the comparative evaluation?	A metric for indicator species habitat was added to the comparative evaluation framework following Indigenous TAC #1. It was noted during Indigenous TAC #2 that a list of species and/or habitat locations would be required from Indigenous communities to support this component of the evaluation. The required information was not received; as a result, this metric was ultimately not included in the evaluation. However, co-location with existing infrastructure and avoidance of sensitive natural areas were important components of the comparative evaluation; these components favour routes that avoid the less disturbed natural areas where indicator species are generally found.

Theme	Question/Comment	Response
Comparative Evaluation	How will effects be measured for the Project?	Effects of the Project were measured in accordance with the Class EA for TF, which recommends that quantitative and qualitative analysis be used to measure and compare effects. These analyses were used to evaluate the advantages and disadvantages of the alternative routes based on a range of factors related to Indigenous Culture, Values, and Land Use; the Natural Environment; the Socio-Economic Environment; and Technical and Cost Considerations. For the comparative evaluation, effects were generally analyzed based on the area of intersection or overlap with sensitive features or areas. For the preferred route, the ESR further outlines potential effects and the mitigation measures that are planned to minimize those effects. Net effects (i.e., residual effects that are anticipated to remain after mitigation measures are applied) and cumulative effects (effects of the Project combined with those of other projects in the immediate area) are also addressed in the ESR. Furthermore, the measurement of effects continues during the implementation of the Project through effects monitoring.
Comparative Evaluation	Can the SWP criterion be expanded to also include the protection of lakes and water bodies within First Nation's traditional territories more generally (i.e., not just municipal drinking water sources)?	The SWP criterion cannot be expanded to include all lakes and water bodies generally, as it is specifically tied to municipal drinking water Source Protection Areas (SPAs). Class EA studies are required to consider SWP in this sense specifically. However, lakes, rivers, wetlands, and other water bodies are considered through other evaluation criteria including surface water resources and aquatic habitat, designated natural areas, and wetlands and regulated areas. In addition, drinking water sources are included as a metric in the Indigenous Culture, Values, and Land Use category to consider potential effects on drinking water sources identified by Indigenous communities.
Natural Environment Existing Conditions and Potential Impacts	Chapleau Cree First Nation provided input on important waterways and water bodies as part of its input into the CHEC report and in its mapping.	Hydro One is continuing to work with Chapleau Cree First Nation to discuss input regarding protection of waterways and waterbodies through Project mitigation measures.
Employment Opportunities	How will the PEC position function for the Project? Who is eligible to apply?	Each Partner First Nation has a PEC, funded through the CFA. The PEC functions as the community's designated point of contact and primary liaison with the Hydro One Project team. The role supports the sharing of Project information, communication of community questions, concerns, and interests, and coordination of engagement opportunities, including Hydro One participation in community events where appropriate. Hydro One holds regular PEC meetings with Partner First Nations to provide Project updates, discuss upcoming engagement opportunities, and receive community feedback. Each Partner First Nation determines internally who will serve as their PEC.

Theme	Question/Comment	Response
Employment Opportunities	Chapleau Cree First Nation has opted to assemble a Project Engagement Team comprising the Chief, Deputy Chief, and PEC Liaison.	Hydro One acknowledges and accepts this approach.
Employment Opportunities	How does the Indigenous TAC relate to the PEC role? Would the PEC role not cover engagement on the TAC?	The Indigenous TAC is not related to the PEC role; these two roles work independently. Recognizing that Chief and Council manage demanding schedules and high-priority community files, the Indigenous TAC was established to ensure each community has dedicated technical representation. This committee meets regularly throughout the comparative evaluation process to review technical data, discuss upcoming milestones, and formulate recommendations on behalf of their respective Partner First Nations. Each Partner First Nation has a PEC, funded through the CFA. The PEC role is to function as the community's designated point of contact and primary liaison with the Hydro One Project team. The Chapleau Cree PEC team supports the sharing of Project information, communication of community questions, concerns, and interests, and coordination of engagement opportunities, including Hydro One participation in community events where appropriate. Hydro One holds regular PEC meetings with Partner First Nations to provide Project updates, discuss upcoming engagement opportunities, and receive community feedback. Each Partner First Nation determines internally who will serve as their PEC or PEC team.
Employment Opportunities	How can Partner First Nations become involved in the employment opportunities associated with the Project?	Employment opportunities are currently available for environmental field surveys. Looking ahead, a substantial number of additional employment opportunities are expected to open up across various sectors once construction activities commence. Interest in employment opportunities can be discussed with the community-specific PEC.
Employment Opportunities	How many consultants and/or companies involved in the Project are offering employment opportunities for Partner First Nations?	Currently, technical support for the Project is being provided by a team of specialized firms: AECOM and ARA are leading the AA, while Dillon and Northwinds Environmental Services (NWES) are conducting the ecological field surveys. Additionally, Victor and Valard are engaged as the ECIs to support pre-construction planning and engineering.

Theme	Question/Comment	Response
Indigenous Culture, Values, and Land Use	What is the difference between "Built Heritage Resources and Cultural Heritage Landscapes" and "Indigenous cultural heritage factors"? How are these evaluated?	BHRs and CHLs are specific technical designations defined under the *Ontario Heritage Act*. They generally refer to physically man-made structures (such as historic buildings, bridges, or old homesteads) and geographically defined areas modified by human activity that hold historical or cultural value to a community (such as old logging camps or historical transport routes). In contrast, Indigenous cultural heritage factors, such as traditional territories, harvesting grounds, waterways, and historic or ceremonial sites, are evaluated under the Indigenous Culture, Values, and Land Use category. This ensures they are assessed through a framework informed by IK, rather than strictly through Western archaeological or colonial definitions. Following feedback, Hydro One recognizes that these traditional practices and harvesting grounds also carry vital economic and social weight for the community. As a result, the Project team has cross-referenced these community Values to ensure that potential impacts on traditional land use are also accounted for within the Socio-Economic Environment evaluation category, preventing these community factors from being looked at in isolation.
Indigenous Culture, Values, and Land Use	How will confidential community Values and sensitive information shared during engagement be protected and integrated into the comparative evaluation?	Hydro One follows OCAP principles when receiving, protecting, and using confidential community Values and sensitive information shared by Partner First Nations. This means that information is managed in accordance with the direction of the Nation that provided it, including any requirements related to confidentiality, use, access, and how it may be incorporated into Project planning. Sensitive community Values information is not shared publicly or disclosed without permission. Where appropriate, this information is integrated into the comparative evaluation in a way that informs routing and decision-making while protecting the confidentiality of the information and the interests of the community.
Natural Environment Existing Conditions and Potential Impacts	How is the Project addressing ecosystem fragmentation and protecting SAR given recent changes to provincial regulations which narrow the definition of “habitat” and the range of “prohibited activities” against SAR?	The regulatory oversight for this process has transitioned from the ESA framework to the newly established SCA framework. The Project team is thoroughly reviewing the operational and compliance implications of these legislative changes to ensure full alignment with the new regulatory requirements as Project planning progresses.

Theme	Question/Comment	Response
Socio-Economic Environment Existing Conditions and Potential Impacts	Concerns regarding reliance on forestry company data for baseline studies due to gaps in their monitoring and reporting, as well as historical industrial impacts which are often not reflected. Recommendation for technical experts to meet with the community and Wahkohtowin Development to integrate IK. Chapleau Cree First Nation is taking steps to provide maps that indicate areas of older growth and more intact areas of forest, as well as areas that have been more extensively impacted.	Hydro One acknowledges the concern regarding the use of forestry company data in baseline studies, particularly where historical industrial activities may have influenced existing conditions. Baseline information is being reviewed alongside ecological field surveys, publicly available data, technical assessments, and information shared through engagement to support a more complete understanding of existing conditions in the Project area. Hydro One also recognizes the importance of IK in informing Project planning and environmental studies. Hydro One will continue to work with the community and Wahkohtowin Development, where appropriate, to identify opportunities for technical experts to meet, review available information, and discuss how IK and community-specific information can be considered in the assessment process.
Vegetation Management	Herbicides must not be used to manage the ROW anywhere within Chapleau Cree First Nation's territory.	Hydro One does not use aerial spraying for vegetation management on its transmission ROW. Collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations. In the past, Hydro One's ROWs have been maintained by selectively treating plants with a low volume, direct application of federally and provincially approved herbicide. The Class EA considered potential effects because of the construction, operation, and maintenance of the transmission line including the ROW and potential use and effects of herbicides.

3.11.5.6. Chapleau Ojibwe First Nation

Chapleau Ojibwe First Nation is one of the nine Partner First Nations. Chapleau Ojibwe First Nation is part of the 7NTLP and participated actively in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, Toronto leadership meeting, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025 Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026.

Chapleau Ojibwe First Nation appointed a PEC in August 2025 and has participated in the biweekly PEC meeting series. Chapleau Ojibwe First Nation participated in the Environmental Field Monitor Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Chapleau Ojibwe First Nation executed an Indigenous Field Monitor Agreement on July 15, 2025.

Chapleau Ojibwe First Nation participated in the following CISs:

- April 15, 2025: Pre-NoC community-specific CIS #1 in community. Questions and concerns raised included overlapping traditional territories and the presence of three reserves in the Chapleau area as a planning challenge; participation in community Values mapping through Wabun Tribal Council; requests for a questionnaire to be circulated to community members who could not attend; and hunting in new-growth logging areas; and questions about community led initiatives ;
- January 14, 2026: Community-specific CIS #2 in Sault Ste. Marie. Questions and concerns raised included the integration of IK into the comparative evaluation; employment opportunities for community members; and what the power will be used for; and
- May 13, 2026: Community-specific CIS #3 in community. Questions and concerns raised included the need for the Project; and the anticipated power capacity of the transmission line.

Since Spring 2025, Dillon has and continues to correspond with Chapleau Ojibwe First Nation regarding Indigenous Monitor participation in environmental field surveys.

Environmental field surveys plans have and continue to be distributed to Chapleau Ojibwe First Nation. A Chapleau Ojibwe First Nation Indigenous Monitor has participated in the following ecological field surveys:

Table 3-11: Indigenous Monitor ecological field survey participation dates for Chapleau Ojibwe First Nation

Date	Ecological field survey
June 22 to 25, 2025	Marsh bird and vegetation surveys
June 27 to 28, July 14, 16 to 20, 22, 2025	Vegetation surveys
July 14, 16 to 20, 22, 2025	Vegetation surveys
August 12 to 14, 2025	eDNA and watercourse crossing assessments
August 16, 2025	Watercourse crossing drone imaging and bank swallow surveys
October 1, 2025	eDNA, watercourse crossing assessments and ELC surveys
May 28 and 29, 31 2026	Basking turtles, bank swallow surveys and eDNA sampling

Hydro One continues to engage with Chapleau Ojibwe First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation’s interest, concerns or position, and does not limit any Nation’s right to be consulted.

Table 3-12: Summary of non-confidential Chapleau Ojibwe First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Consultation and Engagement	Has Chapleau Ojibwe First Nation received formal notification and updates about the Project?	Hydro One issued the formal NoC for the Project to Chapleau Ojibwe First Nation in May 2025. Consultation with Chapleau Ojibwe First Nation has been taking place since January 2025.
Consultation and Engagement	Are community Elders invited to share their knowledge about the general Project area and their thoughts on the different alternative routes?	Hydro One values and continues to welcome all IK throughout the lifecycle of this Project. The IK and insights shared during the earlier stages of the Class EA were integrated and considered within the comparative evaluation of the alternative routes. Hydro One remains committed to maintaining meaningful, ongoing engagement with all Indigenous communities on this and future initiatives. For detailed information on how community Values have actively shaped route refinements for the Project, please refer to **Section 5.2.1**.
Detail Design	What is the power capacity of the proposed line?	The transmission line will initially operate at 230 kV, with the capacity to be upgraded to 500 kV as required to support the growing energy demands of northeastern Ontario.
General Project Information	Does the City of Timmins and the Township of Chapleau know about the Project?	Both the City of Timmins and the Town of Chapleau are aware of the Project. Hydro One has been actively engaging with both municipalities.
General Project Information	What will happen to the existing transmission line once the new transmission line is built?	The existing distribution system is entirely separate from the Project and will remain in place to continue serving local homes and businesses.
General Project Information	Are the growing needs of local industries the main reason the electrical grid needs to be reinforced?	Expanding industrial demand is a driver for reinforcing the electrical grid. In addition to meeting these growing electricity needs, the new transmission line will significantly improve the overall resiliency and reliability of northern Ontario's bulk transmission network. The Project is being driven by the IESO's "Need for Northeast Bulk System Reinforcement" report released in October 2022.
Natural Environment Program	Are there opportunities for summer students to participate in the environmental field surveys?	Opportunities have been, and will continue to be, provided for Indigenous Monitors to participate in environmental field surveys during the 2025 and 2026 field seasons. Notably, Indigenous Monitors from Chapleau Ojibwe First Nation have participated in numerous ecological field surveys as of June 5, 2026 across the 2025 and 2026 field program. Indigenous Monitors are required to be over the age of 18 to participate.
Preferred Route	Which alternative route is the preferred option, or will all of the proposed alternative routes be built?	Only the preferred route is proposed to be constructed. The preferred route consisting of Segments A2, B3, and C2 was announced in May 2026.
Socio-Economic Environment Existing Conditions and Potential Impacts	Will local mines in the Timmins area stay open, and will this new Project provide them with more electrical power?	The construction of the transmission line will significantly increase the bulk power supply and grid capacity within the region, thereby potentially supporting the expansion of critical mineral mining and advanced manufacturing sectors. Hydro One operates as a transmitter of electricity and does not oversee, regulate, or plan the closure of any mining operations; rather, this infrastructure is designed to provide the reliable power necessary to sustain and grow local industrial activities.

3.11.5.7. Flying Post First Nation

Flying Post First Nation is one of the nine Partner First Nations. Flying Post First Nation is part of the 7NTLP and participated actively in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 31, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025 Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026.

Flying Post First Nation appointed a PEC in June 2025 and has participated in the biweekly PEC meeting series. Flying Post First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Flying Post First Nation executed an Indigenous Monitor Agreement on August 6, 2025.

Flying Post First Nation participated in the following CISs:

- April 15, 2025: Pre-NoC community-specific virtual CIS #1. Questions and concerns raised included strong interest in whether the Project could bring power to the Flying Post reserve, which currently has no power; questions about cumulative effects and whether Flying Post First Nation would receive proportionally greater economic benefits given the line's proximity to the reserve; questions about how IK would be gathered from community members; the significance of spirit moose and lake sturgeon in local watercourses; interest in youth involvement; and general support for the engagement process;
- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns included potential impacts to Spirit Moose; youth engagement and employment opportunities, how Hydro One responds when community concerns are overlooked by municipalities; and how route will avoid historic open-pit mines;
- January 26, 2026: Community-specific virtual CIS #2. Questions and concerns raised included requests for capacity funding to support review of the draft ESR and AA reports; the number of Stage 2 archaeological sites identified; the EPC

selection process in cases where Partner First Nations may disagree; and whether further major route changes were anticipated; and

- May 28, 2026: Community-specific virtual CIS #3. Questions and concerns raised included the integration of IK into the comparative evaluation; impacts of Bill 5 on the Project; field studies and mitigation measures being applied for lake sturgeon and spirit moose; employment opportunities; and the use of herbicides for Project maintenance.

Flying Post First Nation members participated in COH #2 held in Foleyet on February 3, 2026, but also indicated that not all interested community members could attend as they had not been aware of the logistics ahead of time.

Hydro One continues to engage with Flying Post First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation’s interest, concerns or position, and does not limit any Nation’s right to be consulted.

Table 3-13: Summary of non-confidential Flying Post First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Comparative Evaluation	How has Indigenous community input influenced the selection of the preferred route for the Project?	Throughout the Class EA process, consultation with Partner First Nations provided IK and community Values mapping that directly informed the comparative evaluation. This feedback shaped the evaluation framework, including establishing a 25% weighting for the "Indigenous Culture, Values, and Land Use" category, and drove key route refinements to avoid culturally sensitive areas and prioritize co-location with existing infrastructure. The integration of this input, along with the assessment of potential effects and corresponding mitigation measures, is further detailed in **Section 5.2.1** and **Table 7-1**.
Comparative Evaluation	Was IK considered in the selection of the preferred route for the Project?	IK, community Values mapping, and feedback from community members and Elders has played an important role in the comparative evaluation and selection of the preferred route. Hydro One values this guidance and integrated these insights alongside technical, environmental, and socio-economic criteria to evaluate the alternative routes. Incorporating IK allowed the Project team to identify culturally and ecologically sensitive areas, avoiding or minimizing potential impacts on wildlife habitats, traditional harvesting grounds, and sites of cultural significance. For specific examples of how community Values and knowledge directly shaped the alternative routes, please refer to **Section 5.2.1**.
Cultural Heritage and Archaeology	With the completion of the Stage 1 AA, how many areas/sites were identified for Stage 2 archaeological field surveys?	While the exact number of specific sites has not yet been defined, Figure 9 of the Stage 1 AA outlines the broader areas recommended for Stage 2 archaeological field surveys. Please refer to **Appendix C-1** to review the Stage 1 AA Report in its entirety.
Cultural Heritage and Archaeology	What information sources are being used to support AAs?	AAs for the Project are supported by a combination of consultant data, provincial regulatory guidelines, and IK. Hydro One retains licensed archaeological consultants (AECOM and ARA for this Project) to track registered sites and conduct Stage 1 background studies, evaluating the general Project area's potential for pre- and post-contact cultural resources. To gather physical data, Stage 2 archaeological field surveys are being completed during 2026 in accordance with the MCM's Standards and Guidelines for Consultant Archaeologists prior to any ground-disturbing activities. Finally, IK, community Values mapping, and the active, ongoing participation of Indigenous Monitors during these surveys serve as inputs to identify and mitigate impacts to culturally significant areas.
Cultural Heritage and Archaeology	How will potential changes to cultural heritage legislation impact the Project?	These legislative changes are not anticipated to impact the archaeological, cultural heritage, or related assessment work currently underway for the Project. Hydro One and its consultants will continue to execute all heritage studies in accordance with existing provincial standards and guidelines.
Detail Design	Will the transmission line operate at 230 kV or 500 kV?	The transmission line is being designed and constructed as a 500 kV single-circuit transmission line. However, the transmission line will initially operate at 230 kV. The operating voltage will then increase as required to support the rapid load growth and future electricity demands expected across northeastern Ontario over the next 25 year.

Theme	Question/Comment	Response
Employment Opportunities	How will construction-related employment opportunities be shared within communities?	Construction-related employment opportunities will be shared and coordinated through a collaborative process between the selected EPC contractor, Hydro One, and community leadership. The selected EPC contractor will be required to work closely with communities, economic development officers, and band offices to post job openings, and outline skill requirements ahead of active construction. Furthermore, Hydro One has embedded Indigenous participation and hiring targets directly into the Project's procurement process, meaning a contractor must demonstrate a concrete plan to recruit and retain community members to successfully secure the contract.
First Nations	Will capacity funding be offered to Flying Post First Nation for the review of the draft ESR and the AA Reports?	Hydro One is committed to providing capacity funding to Flying Post First Nation to support the review of both the draft ESR and the AA reports. Hydro One recognizes that meaningful consultation requires communities to have the necessary resources and technical support to review regulatory and environmental documents.
First Nations	Is Métis Nation of Ontario a Partner First Nation on the Project?	Métis Nation of Ontario is not a Partner First Nation on the Project. However, Métis Nation of Ontario was included in the DTC letter and is being consulted and engaged with as part of the Class EA.
General Project Information	How will the EPC proponent be selected if the Partner First Nations disagree over the chosen proponent?	Hydro One is fully committed to a collaborative, consensus-based approach with Partner First Nations throughout the EPC selection process. Currently, ECI proponents (Victor and Valard) have been selected and will continue engagement with Partner First Nations ahead of the final EPC selection in fall 2026. Should any conflicts or differing perspectives arise during this period, Hydro One will facilitate further discussions and collaborate with Partner First Nations to establish a mutually agreeable solution that respects the interests of all parties involved.
General Project Information	Does Hydro One anticipate any other major changes to the alternative routes?	Following the selection of the preferred route in May 2026, Hydro One does not anticipate any further major refinements to the preferred route.
General Project Information	What does “net-zero supporting greenfield infrastructure” mean?	The phrase “net-zero supporting greenfield infrastructure” refers to the development of brand-new infrastructure, built on previously undeveloped land (greenfield), that is specifically designed to enable and accelerate the transition to a carbon-neutral economy. In the context of this Project, this means constructing entirely new transmission corridors that provide the essential grid capacity needed to connect future clean, renewable energy sources (such as wind, solar, and hydroelectric power) and to support the electrification of industries.
General Project Information	Is Hydro One a Crown corporation?	Hydro One operates as a publicly traded corporation and is no longer a Crown corporation. While the Province of Ontario remains the company's largest shareholder, Hydro One is independently governed by a corporate Board of Directors and is listed on the Toronto Stock Exchange.
Natural Environment Existing Conditions and Potential Impacts	How will Bill 5 impact the Project?	The regulatory oversight for this process has transitioned from the ESA framework to the newly established SCA framework. The Project team is thoroughly reviewing the operational and compliance implications of these legislative changes to ensure full alignment with the new regulatory requirements as Project planning progresses.

Theme	Question/Comment	Response
Natural Environment Existing Conditions and Potential Impacts	What sampling methods are being used to assess lake sturgeon presence within the general Project area?	To assess and detect lake sturgeon presence within the PSA aquatic eDNA analysis has been conducted.
Natural Environment Existing Conditions and Potential Impacts	Are mitigation measures being developed to protect spirit moose breeding areas?	Hydro One is committed to ongoing engagement with Indigenous communities to provide regular Project updates and to collaboratively identify, monitor, and avoid geographically defined areas that support past or present traditional uses, including spirit moose habitats.
Natural Environment Program	How can community members become Indigenous Monitors for the Project?	To become an Indigenous Monitor for the Project community members should express interest to their respective PEC and must be over the age of 18.
Vegetation Management	Will herbicides be used for vegetation management?	Collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations. In the past, Hydro One's ROWs have been maintained by selectively treating plants with a low volume, direct application of federally and provincially approved herbicide. The Class EA considered potential effects because of the construction, operation, and maintenance of the transmission line including the ROW and potential use and effects of herbicides.

3.11.5.8. Garden River First Nation

Garden River First Nation was identified in the Crown DTC delegation letter as a community to be engaged on the Project. Hydro One emailed the Chief of Garden River First Nation on June 6, 2025, introducing the Project and providing an advanced copy of the NoC.

Garden River First Nation, represented by Olthuis Kleer Townshend (OKT LLP), provided a formal response on June 12, 2025, outlining its expectations for consultation that respects its constitutionally protected rights and ensures equitable inclusion in all aspects of the Project, including meaningful consultation and access to economic participation.

An introductory meeting was held on August 13, 2025, during which Garden River First Nation identified its status as a signatory to the Robinson Huron Treaty of 1850 and asserted that its traditional territory extends across both the Robinson Huron and Robinson Superior Treaty areas. Garden River First Nation raised concerns about its inclusion in the Project and the notification process and requested Project shapefiles to facilitate engagement. Hydro One provided the requested shapefiles on September 2, 2025, and confirmed in September 2025 that Garden River First Nation would not be offered an equity partnership in the Project.

A meeting was held on October 21, 2025, to discuss funding arrangements. Garden River First Nation proposed that accommodation options include shares in the Project. Hydro One discussed community investments and economic benefits as potential alternatives.

Correspondence continued through late 2025 and early 2026 regarding the structure and budget for a Project-specific CFA. Garden River First Nation provided a formal response on January 16, 2026, requesting a Project-specific agreement and reiterating the need for adequately resourced consultation under the DTC. Garden River First Nation expressed concerns about the sufficiency of engagement conducted in January, 2026. Hydro One responded on February 18, 2026, providing an overview of prior engagement efforts, requesting finalization of the draft CFA provided in December 2025,

reiterating its recognition of Garden River First Nation's treaty rights, and proposing continued dialogue to address engagement and mitigation as the Project advances.

CFA discussions are ongoing. Hydro One is committed to continued engagement with Garden River First Nation on both consultation requirements and accommodation opportunities as the Class EA proceeds.

Table 3-14: Summary of non-confidential Garden River First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Equity Partnership	How is proximity determined for an Indigenous community to be eligible for the 50-50 First Nation Equity Partnership Model on the Project?	On December 31, 2024, the MEM provided Hydro One with a letter delegating specific procedural aspects of the Crown's DTC and identifying the Indigenous communities to be included in the consultation and engagement process. In alignment with this guidance, Hydro One extended an offer through its industry-leading 50-50 First Nation Equity Partnership Model, providing proximate First Nations the opportunity to invest in a 50% equity stake in the transmission line.
Equity Partnership	Can shares in the Project be acquired if Indigenous communities are not Partner First Nations?	Hydro One is committed to working with Garden River First Nation in a meaningful way as the Project advances and highlights opportunities for participation in the Project, such as procurement, employment, training, and ongoing engagement and coordination.

3.11.5.9. Matachewan First Nation

Matachewan First Nation is one of the nine Partner First Nations. Matachewan First Nation is part of the 7NTLP and participated actively in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 31, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025, Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026.

Matachewan First Nation appointed a PEC in June 2025 and participates in the biweekly PEC meeting series. Matachewan First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Matachewan First Nation executed an Indigenous Monitor Agreement on June 30, 2025.

Matachewan First Nation participated in the following CISs:

- April 10, 2025: Pre-NoC community-specific CIS #1 in community. Questions and concerns raised included the need for the Project to avoid cultural sites; a desire for archaeological studies to help the community uncover its past in the context of colonial impacts on cultural identity; interest in youth involvement in environmental field surveys; a desire for the transmission corridor to be restored with blueberries and other traditional foods and medicines; concerns about spraying for vegetation management, especially near waterbodies and during blueberry harvesting season; and expectations for Indigenous employment and procurement as part of construction;
- September 18, 2025: Community-specific CIS in community requested by the community. Questions and concerns raised included interest in hosting a CIS in Timmins to capture off-reserve members, the sharing and integration of community Values into the comparative evaluation, concerns raised about herbicide use during maintenance and its impact on traditional foods like

blueberries, and question raised about decommissioning of the line at end of life, noting a desire for this to be outlined in the EA;

- January 20, 2026: Community-specific CIS #2 in community. Questions and concerns raised included: herbicide and glyphosate management along the transmission corridor and whether alternative methods are available; how input from community members who may hold views different from Chief and Council will be considered by the Project team; and general inquiries regarding fulfillment of the DTC;
- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns raised included potential impacts to spirit moose; youth employment opportunities; how Hydro One responds when community concerns are overlooked by municipalities; and route planning around historic open-pit mines;
- May 25, 2026: Joint CIS #3 in Timmins (nine attendees). Questions and concerns raised included the ECI selection process; environmental surveys being conducted for the Project; vegetation management; and the use of herbicides; and
- May 26, 2026: Community-specific CIS #3 in community. Questions and concerns raised included the source of power generation for the Project; aquatic and invertebrate surveys for the Project; the ECI selection process; and the use of LiDAR technology for environmental surveys.

Hydro One continues to engage with Matachewan First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation’s interest, concerns or position, and does not limit any Nation’s right to be consulted.

Table 3-15: Summary of non-confidential Matachewan First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Comparative Evaluation	Are moose habitats being considered in the comparative evaluation?	Moose habitats, including late wintering areas, feeding grounds, Moose Emphasis Areas identified in FMPs, and moose habitat locations identified by Indigenous communities, were considered within the Indigenous Culture, Values, and Land Use, and Natural Environment evaluation categories. During the comparative evaluation, Hydro One utilized a combination of baseline environmental data, provincial ecological mapping, and IK provided by Partner First Nations. These inputs were used to identify and favour alternative routes with less interaction with the identified moose habitats.
Electricity and Power	Where will the generating power for the transmission line originate? Will the power originate from the TS?	The source of power depends on the real-time availability of generation stations across the broader provincial network. While the Wawa TS serves as a node within this interconnected system, electricity will flow bidirectionally along the transmission line to balance real-time system demand and regional operating conditions.
General Project Information	How will input provided from community members that opposes that provided by Chief and Council be considered for the Project?	Community members can provide input through different avenues, not only through Chief and Council. All feedback received has been acknowledged and taken into consideration throughout the Project.
General Project Information	How many companies are qualified to construct a Project of this scale?	While an exact number is unknown, there is a limited number of contractors in North America with the specialized qualifications, technical capacity, and large-scale project experience required to execute a Project of this scale.
General Project Information	What is the total cost of the Project expected to be?	Hydro One knows every dollar spent comes from our hard-working customers and we are committed to reducing costs as we become the most efficient utility. A Project cost estimate is being developed and will be submitted to the OEB for approval, via a Section 92 application, prior to any construction work undertaken. Specific factors such as real estate needs and final tower/line design will factor into the Project cost. The final cost of the Project is currently unknown.
General Project Information	Are the selected ECIs Canadian based companies?	Victor and Valard are both Canadian based companies.
Natural Environment Existing Conditions and Potential Impacts	Are benthic and/or aquatic invertebrate surveys being completed as part of the Project?	Benthic and/or aquatic invertebrate surveys are not currently scheduled, as no in-water works are proposed at this stage of Project planning. However, should detail design necessitate in-water activities in the future, Hydro One will initiate formal consultations with the DFO to ensure full regulatory compliance and the implementation of appropriate mitigation measures.
Natural Environment Existing Conditions and Potential Impacts	Is LiDAR technology being used as part of the Project for Forest Resource Inventory (FRI) mapping and/or vegetation community analysis?	FRI data was obtained from the MNR and select areas were ground truthed. LiDAR verification has not been proposed as part of the Class EA.

Theme	Question/Comment	Response
Vegetation Management	How will herbicide use be managed along the transmission corridor?	Collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations. In the past, Hydro One's ROWs have been maintained by selectively treating plants with a low volume, direct application of federally and provincially approved herbicide. The Class EA considered potential effects because of the construction, operation, and maintenance of the transmission line including the ROW and potential use and effects of herbicides.

3.11.5.10. Mattagami First Nation

Mattagami First Nation is one of the nine Partner First Nations and a member of the Wabun Tribal Council. Mattagami First Nation is part of the 7NTLP and participated actively in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025 Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026. Mattagami AKI LP, an affiliate of Mattagami First Nation, has been engaged in discussions for the Project alongside the Nation.

Engagement with Mattagami First Nation during the pre-NoC period was conducted through a series of calls and informal meetings rather than an in-community session.

Mattagami First Nation appointed a PEC in June 2025 and participates in the biweekly PEC meeting series. Mattagami First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Mattagami First Nation executed an Indigenous Monitor Agreement on September 2, 2025.

Mattagami First Nation proactively provided a business registry to Hydro One in September 2025 and raised questions about employment and training opportunities.

Mattagami First Nation provided community Values mapping to Hydro One in September and October 2025. A meeting was held on October 22, 2025, to review the community Values mapping and discuss routing options to avoid identified community Values. Mattagami First Nation confirmed at the meeting that no impacts were anticipated from the proposed alternative routes and indicated no objection to the routing as presented. Additional shapefiles for community Values mapping were provided following the meeting. Mattagami First Nation also inquired whether a minimum buffer distance would be imposed around watercourses and lakes to protect against herbicide impacts.

In February 2026, Mattagami First Nation noted watercourse crossing within their territory carried potential archaeological deposits. Hydro One acknowledged the information provided by Mattagami First Nation and shared the information with AECOM, one of the archeological firms selected for the Project.

Mattagami First Nation provided a registry of partners and local businesses on February 19, 2026.

Mattagami First Nation participated in the following CISs:

- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns raised included potential impacts to spirit moose; youth employment opportunities; how Hydro One responds when community concerns are overlooked by municipalities; and route planning around historic open-pit mines;
- January 28, 2026, Community-specific CIS #2 in community. Questions and concerns raised included environmental field surveys for the Project; impacts to culturally significant areas and community Values; implications of Bill C-5; vegetation management; and migratory corridors for ungulates;
- May 20, 2026, Community-specific CIS #3 in community. Questions and concerns raised included vegetation management; impacts of culturally significant areas and community Values; the ECI selection process; and the use of herbicides for the Project; and
- May 25, 2026: Joint CIS #3 in Timmins. Questions and concerns raised included the ECI selection process; environmental field surveys being conducted for the Project; vegetation management; and the use of herbicides.

Since Spring 2025, Dillon has and continues to correspond with Mattagami First Nation regarding Indigenous Monitor participation in environmental field surveys. Environmental field survey plans have and continue to be distributed to Mattagami First Nation. A Mattagami First Nation Indigenous Monitor has participated in the following ecological surveys.

Table 3-16: Indigenous Monitor ecological field survey participation dates for Mattagami First Nation

Date	Ecological field survey
October 1, 2025	eDNA, watercourse crossing assessments and ELC surveys
May 29, 2026	Basking turtles and eDNA sampling

Hydro One continues to engage with Mattagami First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation's interest, concerns or position, and does not limit any Nation's right to be consulted.

Table 3-17: Summary of non-confidential Mattagami First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Construction	What will happen to trees removed for the Project?	Discussions are ongoing with Partner First Nations regarding the collection and salvage of timber where vegetation clearing is required. To facilitate construction and ensure the long-term, safe, and reliable operation of the transmission line, tree clearing will be conducted beneath the ROW as necessary. The specific clearing requirements and timber management protocols for this Project will be finalized closer to the start of construction.
Construction	What is the selection process for the consultants, contractors, and ECI candidates participating in the Project?	RFPs are issued for the various stages of the Project specifically to companies with demonstrated experience managing initiatives of a similar scale and complexity, including previous work on large-scale Hydro One infrastructure. Proponents are evaluated through the procurement process based on their qualifications, technical experience, and demonstrated ability to successfully deliver the required scope of work.
Cultural Heritage and Archaeology	What does future archaeological work look like for the Project and who will oversee the AAs for the Project?	Following AECOM's Stage 1 AA, which identified specific areas of archaeological potential, Stage 2 archaeological field surveys are being initiated to document any archaeological resources within the general Project area. Because the terrain cannot be effectively ploughed, field crews will utilize the standard test pit survey method. To execute this work efficiently, Hydro One has divided the responsibilities by segment: ARA will conduct the Stage 2 archaeological field surveys for Segment A, while AECOM will complete the assessments for Segments B and C. The Stage 2 archaeological field surveys is anticipated to run through 2026 and 2027.
Cultural Heritage and Archaeology	How will First Nations be involved in monitoring and decision-making related to the AAs?	Indigenous Monitors are invited and encouraged to participate in the upcoming Stage 2 archaeological field surveys. This collaborative approach ensures that IK and community oversight are integrated directly into the AA process.
Cultural Heritage and Archaeology	How will impacts to hunting and trapping lands, ceremonial areas, burial sites, and other culturally significant locations be studied for the Project? How will these impacts be quantified and presented to First Nations?	Potential impacts to hunting, trapping, ceremonial areas, burial sites, and other culturally significant locations are evaluated by combining identified community Values and IK studies with AAs conducted alongside Indigenous Monitors. These features were factored into the comparative evaluation which helped inform the selection of the preferred route. Mitigation measures proposed for Indigenous Culture, Values, and Land Use are outlined in **Table 7-1**.
Detail Design	What is the anticipated width of the new transmission corridor?	The width of the ROW will be 75 m wide.
Employment Opportunities	What employment and training opportunities are available for Mattagami First Nation community members with Hydro One and Ontario Power Generation (OPG)	Hydro One actively encourage outreach from community members and local Indigenous businesses. To explore current job openings, apprenticeships, and career pathways, community members are encouraged to regularly visit the official Hydro One Careers websites. Local businesses looking for procurement opportunities can also connect directly with Hydro One's Indigenous Partnership and Business Development or supply chain teams. Hydro One is a separate entity from OPG and cannot speak to or comment on OPG's specific internal hiring or procurement processes. For OPG-specific inquiries, please visit the official OPG website.

Theme	Question/Comment	Response
Employment Opportunities	How is Hydro One ensuring that Partner First Nations can compete for various contracting opportunities associated with the Project?	The EPC contractor will be provided with a registry of Indigenous-owned businesses and will be expected to establish formal agreements that drive economic and employment opportunities for local Indigenous communities. Hydro One has integrated clear Indigenous participation targets directly into the RFPs, which ECI candidates must commit to be considered successful proponents. Partner First Nations must be fully satisfied with these proposed agreements for any proponent to succeed in the bidding process, underscoring the Project team's commitment to maximizing long-term economic benefits for Partner First Nations.
First Nations	What compensation will be provided to First Nations for land disturbance and acquisition?	Compensation for land disturbance and land acquisition is determined through a formal negotiation process with affected communities. Where the Project route intersects reserve lands, traditional territory, or areas with established rights, Hydro One is committed to providing fair market valuation and financial compensation for the standard land rights required and any associated physical disturbances caused during construction. Furthermore, this standard compensation framework is entirely separate from the long-term revenue generated through the 50-50 First Nations Equity Partnership Model. Hydro One will work directly with the leadership and legal counsel of each impacted Partner First Nation to develop individualized land use agreements that respect community rights, outline environmental remediation protocols for disturbed areas, and ensure fair financial compensation.
General Project Information	How may the Project affect future generations, harvesting activities, and traditional ways of life?	Through Hydro One's industry-leading 50-50 First Nation Equity Partnership Model, each Partner First Nation secures a steady, long-term revenue stream to autonomously fund youth education, language revitalization, and community infrastructure, while mandatory procurement targets create direct pathways for local apprenticeships and careers. Harvesting activities are being protected through collaborative vegetation management discussions, such as prioritizing mechanical-only clearing to avoid herbicides, which protects traditional food and medicine sources while creating stable travel corridors and enhanced habitats that support regional wildlife. By involving Indigenous Monitors in environmental field surveys and using IK in early planning, the Project ensures sacred sites and cultural practices are protected.
General Project Information	Will Partner First Nations be involved in monitoring IK throughout the Project?	Through the Class EA, the Project team is actively considering long-term monitoring requirements during operations, decommissioning planning, and specific approaches for restoring land to its pre-construction conditions.
General Project Information	What measures will be implemented to address IK considerations?	Indigenous Monitors are encouraged to participate in environmental field surveys to help identify and communicate IK directly to field crews. Indigenous communities are encouraged to share known IK areas in advance, ensuring these culturally significant zones can be properly identified and protected during early planning and field activities.

Theme	Question/Comment	Response
General Project Information	Will a 3D model or visual rendering of the transmission line be made available?	Hydro One understands the interest in seeing what the transmission line may look like once constructed. Visual materials may be developed as Project planning and design advances and more information is available regarding structure types and tower locations. At this stage, detailed modelling is not available because final design details have not yet been confirmed. Hydro One will continue to share available visual information through engagement materials to help Partner First Nations, interested parties, and community members better understand the potential visual appearance of the Project.
Natural Environment Existing Conditions and Potential Impacts	What are the anticipated impacts of the Project on fish spawning areas, and how will they be mitigated?	Anticipated impacts to fish spawning areas include potential disturbances as a result of vegetation loss, soil erosion, sedimentation, and the installation of temporary watercourse crossings. Mitigation measures regarding fish and fish habitat are outlined in **Table 7-1**.
Natural Environment Existing Conditions and Potential Impacts	What mitigation measures will be taken if construction or transmission corridors intersect nesting grounds for eagles?	Ecological field surveys have identified bald eagle and osprey nesting habitats along alternative routes B1, B2, B3, C1, and C2. To ensure the protection of these species and their habitats during Project activities, specific mitigation measures have been established. Refer to **Table 7-1** for the full list of mitigation measures proposed for the Project.
Natural Environment Existing Conditions and Potential Impacts	How will Bill C-5 impact this Project?	The regulatory oversight for this process has transitioned from the ESA framework to the newly established SCA framework. The Project team is thoroughly reviewing the operational and compliance implications of these legislative changes to ensure full alignment with the new regulatory requirements as Project planning progresses.
Natural Environment Existing Conditions and Potential Impacts	Are moose migration corridors being considered in the selection of a preferred route?	Moose migration corridors, late wintering areas, feeding grounds, and locations identified in community Values mapping, are considered within the Indigenous Culture, Values, and Land Use, and Natural Environment evaluation categories. During the comparative evaluation, Hydro One utilizes a combination of baseline environmental data, provincial ecological mapping, and IK provided by Partner First Nations. These inputs are used to assess and compare potential impacts across the alternative routes.
Natural Environment Program	Will Mattagami First Nation Indigenous Monitors participate in environmental field surveys across the entire general Project area, or will their scope be limited to the sections within their traditional territory?	Indigenous Monitors will have the scope to work across the entire general Project area and will be granted full access to all environmental field survey activities conducted within the general Project area.
Vegetation Management	What will the minimum buffer zone be for the use of herbicides around waterbodies, should they be used?	Discussions regarding the vegetation management strategy and the potential use of herbicides remain ongoing with Partner First Nations. Standard Hydro One practice in the past has been a 30 m buffer zone from waterbodies.

Theme	Question/Comment	Response
Vegetation Management	What long-term monitoring and vegetation management will occur once construction begins, and how will Partner First Nations receive this information?	Hydro One cannot currently confirm that herbicides will not be used within the transmission corridor; however, collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations. Hydro One noted that if a collective agreement is reached among Partner First Nations to utilize mechanical clearing methods exclusively, Hydro One would be willing to work within those preferences. Regarding long-term maintenance, Partner First Nations will maintain continuous involvement through their equity participation in the Project. Quarterly meetings will be established to discuss maintenance-related operations, and all interested Partner First Nations are welcome to participate.
Vegetation Management	How does Hydro One work with the MNR regarding herbicide spraying and existing FMPs?	Hydro One is coordinating with the MNR and local forest management companies regarding clearing activities and their proximity to the transmission line. Hydro One maintains sole responsibility for the upkeep of the transmission line corridor itself, while the respective forest management companies remain responsible for the surrounding forestry operations. For this Project, collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations.

3.11.5.11. Michipicoten First Nation

Michipicoten First Nation is one of the nine Partner First Nations and is participating in the 50-50 First Nation Equity Partnership independently rather than through the 7NTLP. Michipicoten First Nation has participated in the February 19, 2025, and the July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, and the September 16 and 17, 2025, Sudbury leadership meeting.

Engagement during the pre-NoC period was conducted through calls and bilateral meetings rather than an in-community session.

Michipicoten First Nation appointed a PEC in August 2025 and participates in the biweekly PEC meeting series. Michipicoten First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Michipicoten First Nation executed an Indigenous Monitor Agreement on July 15, 2025.

Michipicoten First Nation requested that Hydro One provide shapefiles of the alternative routes so the Lands department could review them against their community Values, rather than providing community Values mapping to Hydro One.

Michipicoten First Nation participated in the following CISs:

- January 14, 2026: Joint CIS #2 in Sault Ste. Marie (47 attendees). Questions and concerns raised included the basis for Partner First Nation ownership being listed as 49.997 percent; the voltage requirements and destination of power; herbicide management along the corridor; and anticipated impacts to the natural environment and Indigenous land use;
- January 15, 2026: Community-specific CIS #2 in community (20 attendees). Questions and concerns raised included the ECI selection process; the 2026 environmental field surveys; and community employment opportunities;

- May 11, 2026: Joint CIS #3 in Sault Ste. Marie (22 attendees). Questions and concerns raised included the use of LiDAR technology and drones for archaeological or geotechnical work; as well as the ECI selection process; and
- May 29, 2026: Community-specific CIS #3 in community (three attendees). Questions and concerns raised included community member participation in environmental surveys; impacts to Michipicoten First Nation's traditional territory; the AA process; impacts to water quality and groundwater; herbicide spraying for the Project; and concerns over the format of the CISs.

Michipicoten First Nation is engaging with Hydro One independently on all partnership, procurement, and Class EA matters.

Hydro One continues to engage with Michipicoten First Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Table 3-18: Summary of non-confidential Michipicoten First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Construction	Would any turns or sharp angles along the preferred route cause any technical issues?	While engineering practices required for sharp turn angles will increase construction costs, these sharp angles are necessary in specific areas to effectively route around constraints.
Construction	Why are water quality tests not being conducted?	Minimal impacts are anticipated to water bodies, as no transmission towers are anticipated to be placed directly in the water and no in-water works are anticipated.
Construction	Are there any studies being conducted for groundwater?	Geotechnical surveys are being conducted to analyze the water table and soil conditions for future tower placement engineering. The likelihood of interacting with or impacting groundwater during this work is very low, as the tower foundations are not deep enough to affect the water table. Geotechnical surveys are being carried out specifically to ensure that engineering practices are fully informed by local soil and hydrological data.
Construction	Where will water be sourced for cement tower foundations?	The specific water sources for construction activities have not yet been finalized. These sources will be identified and confirmed closer to the construction phase, following detailed site planning and the procurement of necessary local permits and regulatory approvals.
Construction	Will Indigenous businesses oversee creation of EMSs for contracted work?	The selected EPC contractor will be contractually required to develop and implement an EMP. Hydro One will conduct compliance audits throughout the construction lifecycle to ensure adherence to all environmental commitments, regulatory approvals, and corporate sustainability standards.
Construction	Where will trees go if they are removed?	Discussions are ongoing with Partner First Nations and landowners regarding the collection and salvage of timber where vegetation clearing is required. To facilitate construction and ensure the long-term, safe, and reliable operation of the transmission line, tree clearing will be conducted beneath the ROW as necessary. The specific clearing requirements and timber management protocols for this Project will be finalized closer to the start of construction.
Cultural Heritage and Archaeology	How do archaeology teams determine where to conduct test-pitting?	The Stage 1 AA outlines the areas recommended for Stage 2 archaeological field surveys, with a key emphasis on waterways. Please refer to **Appendix C-1** to review the Stage 1 AA report in its entirety.
Cultural Heritage and Archaeology	How is test-pitting an accurate way to evaluate archaeology?	The intensity of archaeological digs is determined progressively based on field findings. If an object is discovered, additional surveys are initiated, and the intensity of excavation in that specific area is increased. While Hydro One acknowledged the inherent potential to miss archaeological remnants by following this phased approach, this strategy is the approved methodology outlined by the MCM.

Theme	Question/Comment	Response
Equity Partnership	How does the 50-50 First Nation Equity Partnership Model work, including within the context of the Collective?	On December 31, 2024, the MEM provided Hydro One with a letter delegating specific procedural aspects of the Crown's DTC and identifying the Indigenous communities to be included in the consultation and engagement process. In alignment with this guidance, Hydro One extended an offer through its industry-leading 50-50 First Nation Equity Partnership Model, providing proximate First Nations the opportunity to invest in a 50% equity stake in the transmission line. 50% equity is offered to Partner First Nation's at energization, under the 50-50 First Nation Equity Partnership Model. No additional shares are allocated to Partner First Nations within the Collective.
General Project Information	Which companies were considered for ECI for the Project? Which companies were considered for archaeology for the Project?	For ECI, the companies currently involved in the Project are Victor and Valard. For archaeology, the companies currently involved in the Project are AECOM and ARA. Information regarding other companies that may have been considered through Hydro One's procurement processes is commercially sensitive and cannot be shared. Contractors and consultants are retained through Hydro One's established procurement processes, which consider factors such as relevant experience, qualifications, technical capability, safety performance, cost, and ability to meet Project requirements.
General Project Information	What will engagement with the selected ECI/EPC contractor look like?	The ECI/EPC engagement process is outlined in **Section 3.11.4**.
General Project Information	How will the EPC proponent be selected if the Partner First Nations are in disagreement over the chosen proponent?	Hydro One is fully committed to a collaborative, consensus-based approach with Partner First Nations throughout the EPC selection process. Currently, ECI proponents (Victor and Valard) have been selected and will continue active engagement with Partner First Nations ahead of the final EPC selection in fall 2026. Should any conflicts or differing perspectives arise during this period, Hydro One will facilitate further discussions and collaborate with Partner First Nations to establish a mutually agreeable solution that respects the interests of all parties involved.
General Project Information	Will capacity funding be made available for ECI meetings?	Yes. Capacity funding will be made available for ECI meetings with Partner First Nations through the existing CFA process.
General Project Information	What percentage of the preferred route is within Michipicoten First Nation traditional territory?	Approximately 30% of the transmission line is within Michipicoten First Nation's traditional territory.

Theme	Question/Comment	Response
Indigenous Culture, Values and Land use	Can traditional land use activities, including subsistence, gathering, fishing, overnight use, day use (such as medicine walks), and incidental cabins, as well as specific setbacks and protective buffers measured in meters from the ROW for ceremonial and burial sites, be incorporated and evaluated under the Indigenous Culture, Values, and Land Use category?	Traditional land use activities were incorporated into the evaluation where community Values mapping was provided by Indigenous communities. Buffers were applied to these features based on direction received regarding the appropriate setbacks from these locations.
Natural Environment Existing Conditions and Potential Impacts	Will environmental data collected through environmental field surveys be shared with Partner First Nations?	All environmental data collected through environmental field surveys can be shared with Partner First Nations, if requested.
Natural Environment Existing Conditions and Potential Impacts	Will soil erosion be prevented by planting native species following construction?	Hydro One intends to utilize native vegetation species within the ROW to naturally minimize soil erosion and support local biodiversity. To ensure ecological and cultural alignment, Hydro One actively invites Partner First Nations to provide recommendations on preferred traditional and native plant species and remains fully committed to collaborating closely with communities on the final revegetation plans.
Natural Environment Program	How are Indigenous Monitors being trained and prepared for the 2026 field season?	Hydro One and Dillon hosted Indigenous Monitor Ecology Training Programs (lead by NWES) in Sudbury from August 26 to 28, 2025, and May 5 to 7, 2026. The trainings were designed to build practical knowledge and hands-on skills in environmental field monitoring and was attended by representatives from multiple Partner First Nations.
Natural Environment Program	Has Michipicoten First Nation participated in any environmental field surveys as of June 5, 2026?	Community members from Michipicoten First Nation have yet to participate in environmental field surveys. However, Michipicoten First Nation has participated in the Indigenous Monitor Ecology Training Programs (lead by NWES) in Sudbury from August 26 to 28, 2025, and May 5 to 7, 2026.

3.11.5.12. Missanabie Cree First Nation

Missanabie Cree First Nation is one of the nine Partner First Nations. Missanabie Cree First Nation, is part of the 7NTLP and participated in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, the September 16 and 17, 2025, Sudbury leadership meeting, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026. Missanabie Cree Business Corporation (MCBC), an affiliate of Missanabie Cree First Nation, has been engaged in the Project alongside the Nation.

Missanabie Cree First Nation noted it may be one of the most impacted Indigenous communities given the geographic relationship between its territory and the proposed corridor.

Missanabie Cree First Nation appointed a PEC in July 2025 and participates in the biweekly PEC meeting series. Missanabie Cree First Nation participated in the Indigenous Monitor Ecology Training programs in August 2025, and May 2026, as well as the Archaeology Training program in June 2026. Missanabie Cree First Nation executed an Indigenous Monitor Agreement on September 30, 2025.

Missanabie Cree First Nation confirmed no concerns with the ECI contractor list on November 13, 2025.

Missanabie Cree First Nation participated in the following CISs:

- April 14, 2025: Pre-NoC community-specific CIS #1 in Sault Ste. Marie. Questions and concerns raised included how Hydro One intends to respect and protect Aboriginal and treaty rights; the desire for regular Project updates and a community representative at the table; interest in using CFA funding for educational initiatives; the potential for Missanabie Cree First Nation staff to be engaged for IK collection; a desire to Indigenize the Project through cultural practices and Indigenous art incorporated into infrastructure; questions about IK protection and how confidentiality would be managed; interest in the Indigenous

Monitor Ecology Training programs; questions about expropriation of Missanabie Cree First Nation land; and an offer to invite Hydro One to Missanabie Cree First Nation's yearly community gathering.

- January 14, 2026 (morning session): Community-specific CIS #2 in Sault Ste. Marie. Questions and concerns raised included historical injustices related to transmission corridors and a request for Hydro One to support a remediation study, and cumulative losses experienced by the community, the source and destination of power and whether mines would receive increased power; the availability of existing ecological datasets; and the potential for a community benefit agreement to secure construction employment;
- January 14, 2026 (afternoon session): Joint CIS #2 in Sault Ste. Marie. Questions and concerns raised included the voltage requirements and destination of power; herbicide management along the corridor; and anticipated impacts to the natural environment and Indigenous land use;
- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns raised included potential impacts to spirit moose; youth employment opportunities; how Hydro One responds when community concerns are overlooked by municipalities; and route planning around historic open-pit mines; and
- May 12, 2026: Community-specific CIS #3 in Sault Ste. Marie. Questions and concerns raised included employment opportunities for community members; community involvement in environmental field surveys; and the ECI selection process.

Since Spring 2025, Dillon has and continues to correspond with Missanabie Cree First Nation regarding Indigenous Monitor participation in environmental field surveys. Environmental field survey plans have and continue to be distributed to Missanabie Cree First Nation. A Missanabie Cree First Nation Indigenous Monitor has participated in the following ecological field surveys.

Table 3-19: Indigenous Monitor ecological field survey participation dates for Missanabie Cree First Nation

Date	Ecological field survey
September 30 and October 1, 2025	eDNA, watercourse crossing assessments and ELC surveys

Hydro One continues to engage with Missanabie Cree First Nation regarding participation in environmental planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation's interest, concerns or position, and does not limit any Nation's right to be consulted.

Table 3-20: Summary of non-confidential Missanabie Cree First Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Comparative Evaluation	Please provide additional details on the “system benefits and impacts to Indigenous communities” criterion.	This criterion includes impacts to Indigenous-owned facilities that could be affected by outages required during construction.
Construction	Is ROW clearing currently underway near the Wawa TS?	No ROW clearing or construction activities will occur until approval from the OEB is granted following the submission of the Class EA, and all required environmental and municipal permits are received.
Construction	Have any construction activities commenced as of June 5, 2026?	No ground-disturbing construction activities are anticipated prior to 2028, with the exception of environmental field surveys.
ECI / EPC	Will Hydro One continue to be involved in ECI work?	Hydro One will continue to serve as an active resource for Partner First Nations throughout the ECI process. While Hydro One will work closely with Partner First Nations to advocate for their priorities and interests during the ECI/EPC phase, the primary communications, meetings, and formal agreements will take place directly between the ECIs and the Partner First Nations.
ECI / EPC	Are there opportunities for Missanabie Cree First Nation to provide services for construction including materials, camps, housing etc.?	Opportunities for community involvement in construction activities, including the provision of materials, camp services, and housing solutions, will be further discussed with the ECIs throughout 2026. Partner First Nations will have the opportunity to engage directly with the ECIs to outline their specific capabilities and identify areas where they can support the Project. Ultimately, procurement and business involvement will be primarily driven by discussions and agreements with the selected EPC contractor.
Electricity and Power	Where is the power from this transmission line going and where is the power coming from?	The power grid allows electricity to flow dynamically in both directions. Because power plants and generation sources are strategically located across the province, electrical energy can be drawn from any region to travel along this new transmission line to meet local needs. Conversely, during periods of surplus local generation, the transmission line can also be utilized to export excess power back to other parts of the provincial grid, enhancing overall system reliability and flexibility.
Electricity and Power	Will the mining sector receive increased power from this Project?	The primary objective of this Project is to enhance overall grid reliability, increase transmission capacity, and support the growing energy demands of the entire region. While the new transmission line will reinforce the regional grid and unlock additional power capacity that can support various industrial, municipal, and community economic development needs, including those of the mining sector, the allocation and distribution of specific power loads to individual commercial customers are managed independently. Heavy industrial users, such as mining operations, must go through the standard regulatory connection assessment processes with the IESO and the local distribution companies to determine their specific power allocations and service requirements.

Theme	Question/Comment	Response
Employment Opportunities	Can a Community Benefit Agreement where members could have job opportunities during construction be considered?	Rather than utilizing a separate Community Benefit Agreement, Hydro One has integrated employment and economic protections directly into the contracting structure of the Project to ensure opportunities for local communities. Hydro One has embedded Indigenous participation and employment targets directly into the RFPs for the Project. Under this model, the selected EPC contractor will be required to establish formal, binding agreements that drive local hiring, training, and procurement from a registry of Indigenous-owned businesses. Furthermore, for a proponent to successfully win the contract, Partner First Nations must be fully satisfied with these proposed agreements and targets, ensuring the community has a direct say in maximizing construction jobs and economic benefits for its community members.
Employment Opportunities	Who is eligible for employment opportunities associated with the Project?	Employment opportunities associated with the Project are open to all qualified candidates, including all Partner First Nations. The EPC contractor will be provided with a registry of Indigenous-owned businesses and will be expected to establish formal agreements that drive economic and employment opportunities for local Indigenous communities. Hydro One has integrated clear Indigenous participation targets directly into the RFPs, which ECI candidates must commit to in order to be considered successful proponents. Partner First Nations must be fully satisfied with these proposed agreements for any proponent to succeed in the bidding process.
First Nations	Would compensation be provided if the new transmission line is built within existing corridors that continue to impact community use?	Where the preferred route utilizes an existing ROW or shared corridor, Hydro One works closely with Partner First Nations to assess how the new infrastructure may interact with current community use, harvesting, or cultural practices. Any potential impacts introduced by this specific Project are addressed and accommodated through the Project's mitigation measures, and environmental programs . Hydro One remains committed to working collaboratively with community representatives to minimize the Project's footprint and ensure that traditional land use is respected and protected throughout the Project.
First Nations	Will there be a study on how this historical injustice could be remedied? Will Hydro One support in undertaking this work?	The Class EA process for this Project is scoped to identify, mitigate, and accommodate the potential impacts of the newly proposed transmission line, and therefore does not include a formal study on historical or legacy grievances. Hydro One recognizes and respects the history surrounding past utility developments and the long-standing concerns regarding historical infrastructure where proper consultation may not have occurred. While the current Project framework and its regulatory studies cannot be retroactively applied to remedy past injustices, Hydro One is committed to building a new path forward. Hydro One remains open to separate dialogue with leadership to discuss community-led relationship initiatives and ways to strengthen our long-term partnership outside of this specific Project's scope.
First Nations	Can an assessment of the cumulative losses experienced by the community as of June 5, 2026, be undertaken?	The CEA conducted for this Project is defined by provincial and federal regulatory frameworks, which require the evaluation of how the Project's predicted impacts might interact with the residual effects of other past, present, or reasonably foreseeable future projects within the LSA. Because this methodology is forward-looking and tied to the regulatory approval of the new asset, it cannot legally or technically encompass a historical audit of total cumulative losses or past socio-economic damage experienced by the community over generations. Hydro One acknowledges that historical industrial developments have had lasting impacts on traditional territories. While a retroactive assessment of past losses falls outside the

Theme	Question/Comment	Response
		scope of the Class EA, Hydro One remains committed to separate dialogues with leadership to foster meaningful reconciliation and discuss community-led initiatives outside the regulatory process.
Indigenous Culture, Values and Land use	Will compensation in relation to the Truth and Reconciliation Commission Calls to Action be provided, particularly regarding previously uncompensated linear infrastructure where the community was not consulted or compensated?	Hydro One is deeply committed to the principles of the Truth and Reconciliation Commission's Calls to Action. With respect to historical grievances and legacy infrastructure, Hydro One acknowledges the complexities of past developments; however, the scope of this specific Project and its regulatory process is focused on the impacts and opportunities of the new transmission line.
Indigenous Culture, Values and Land use	What ceremonies are taking place for this Project?	Numerous ceremonies have taken place throughout the lifecycle of the Project as of June 5, 2026. Most recently, a ceremony was held to respectfully commence the 2026 field season. Hydro One deeply values these culturally significant ceremonies and continues to welcome opportunities to support and participate in additional ceremonies as the Project progresses.
Natural Environment Existing Conditions and Potential Impacts	Are bear dens accounted for in any of the criteria of the comparative evaluation?	It was noted during Indigenous TAC #2 that mapping of bear den locations would be required from Indigenous communities to support incorporating them into the evaluation because baseline data was not available. The required information was not received; as a result, this metric was ultimately not included in the evaluation. However, mitigation measures in **Table 7-1**, including the use of wildlife-proof containers during construction, will help minimize impacts to bears.
Natural Environment Existing Conditions and Potential Impacts	Are existing reports available on ecological or environmental studies?	Environmental data sets from various Provincial ministries, including the MECP and the MNR, have been utilized to inform the comparative evaluation and subsequent selection of the preferred route. To support this process, a Natural Environment: Existing Conditions Report was produced specifically for the general Project area and shared with Partner First Nations to gather comments, feedback, and IK, ensuring community insights were fully integrated into the Project planning. Additionally, a Stage 1 AA and CHER were developed for the general Project area, providing a baseline to further guide the comparative evaluation and support the selection of the preferred route. Please refer to **Appendices C-1, C-2,** and **C-3** for the complete reports.
Natural Environment Program	Are Partner First Nations walking the land to determine impacts, and will the work include compensation and job opportunities for community members?	Community members from Partner First Nations are heavily involved in ongoing environmental field surveys. Dillon and NWES will be conducting ecological field surveys throughout 2026, offering paid monitoring positions for members of Partner First Nations. Additionally, Stage 2 AA opportunities are scheduled for 2026, providing further avenues for direct community participation and employment.
Natural Environment Program	Are there opportunities for Partner First Nations to participate in environmental field surveys and archaeological work?	Opportunities have been and will continue to be provided for Indigenous Monitors to participate in environmental field surveys during the 2025 and 2026 field seasons. Notably, Indigenous Monitors from Missanabie Cree First Nation have participated in ecological field surveys in 2025. Indigenous Monitors are required to be over the age of 18 to participate.

Theme	Question/Comment	Response
Routing	Will the Project parallel existing infrastructure that has already disrupted community use?	Hydro One prioritizes opportunities to parallel existing linear infrastructure wherever feasible. The preferred route parallels the Highway 101 corridor along segments A2 and C2. Final corridor selection requires a careful balance of multiple factors across the entire alignment, including: • Indigenous Culture, Values, and Land Use; • Natural Environment; • Socio-Economic Environment; and • Technical and Cost Considerations. Known local constraints were factored into the evaluation of all alternative routes for the Project. While specific community feedback, including suggestions to parallel Highway 101 continuously, was thoroughly analyzed during the route refinement process, maintaining a continuous highway alignment through the B segment did not rank favourably across the established evaluation criteria.
Vegetation Management	Will herbicides be used to maintain the ROW?	Collaborative discussions regarding vegetation management approaches remain ongoing with Partner First Nations. In the past, Hydro One's ROWs have been maintained by selectively treating plants with a low volume, direct application of federally and provincially approved herbicide. The Class EA considered potential effects of the construction, operation, and maintenance of the transmission line including the potential use and effects of herbicides.

3.11.5.13. Red Sky Métis Independent Nation

Red Sky Métis Independent Nation was identified on the Crown DTC delegation letter as a community to be engaged on the Project.

Red Sky Métis Independent Nation subsequently provided a letter to Hydro One sharing the community's perspectives on the Project. Hydro One acknowledged receipt of the letter on September 18, 2025, noting points raised regarding traditional land use, cultural heritage, and ensuring meaningful benefits for community members. Hydro One proposed an introductory meeting in October 2025 to provide a full Project update and identify opportunities for collaboration.

Engagement with Red Sky Métis Independent Nation remains in the early stages. Hydro One is committed to continued outreach and will work with the Red Sky Métis Independent Nation to establish a meaningful engagement process as the Class EA advances.

3.11.5.14. Taykwa Tagamou Nation

Taykwa Tagamou Nation is one of the nine Partner First Nations. Taykwa Tagamou Nation is part of the 7NTLP and participated actively in 7NTLP formation discussions and leadership meetings throughout the engagement period, including the February 19, 2025, April 1, 2025, and July 30, 2025, Toronto leadership meetings, the May 26, 2025, Partner First Nation meeting in Sault Ste. Marie, and the first 7NTLP meeting in Toronto on March 23 and 24, 2026. Taykwa Tagamou Nation is represented by OKT LLP for the Project. Taykwa Tagamou Nation’s monitoring and engagement activities are supported through a multi-Project CFA, which addresses functions that would otherwise be covered by a standalone Indigenous Monitor Agreement.

Taykwa Tagamou Nation appointed a PEC in July 2025 and participates in the biweekly PEC meeting series. Taykwa Tagamou Nation participated in the Indigenous Monitor Ecology Training programs August 2025, and May 2026, as well as the Archaeology Training program in June 2026.

Taykwa Tagamou Nation raised the importance of the spring hunting season at a meeting on October 22, 2025, requesting that environmental field surveys be limited during this period. On November 7, 2025, Taykwa Tagamou Nation emailed Hydro One proposing strategies for long-term employment pathways for community members, with a meeting taking place on December 16, 2025, to discuss next steps with Hydro One. Hydro One noted internal discussions were underway to support these objectives.

Taykwa Tagamou Nation participated in the following CISs:

- April 11, 2025: Pre-NoC community-specific CIS #1 in community. Questions and concerns raised included the importance of ensuring the process includes community members, IK, and Indigenous engagement throughout the Project lifecycle; questions about how procurement and contractor decision-making would be structured; a strong interest in ensuring non-unionized Indigenous businesses can compete for Project work and a clear signal that union requirements that effectively exclude Indigenous businesses from bidding would not be acceptable to the Nation; cumulative effect concerns given the presence of 15 to 18 hydro dams and hundreds of kms of existing transmission lines in Taykwa Tagamou Nation's traditional territory; interest in having IK incorporated into routing; the need for environmental monitoring commitments as part of the EA; concerns about invasive species introduction and a request for clean equipment requirements as a Class EA commitment; and interest in sharing Taykwa Tagamou Nation's EA Toolkit, which was being developed to guide how IK should be collected for projects in their territory.
- January 21, 2026: Joint CIS #2 in South Porcupine. Questions and concerns raised included potential impacts to spirit moose; youth employment opportunities; how Hydro One responds when community concerns are overlooked by municipalities; and route planning around historic open-pit mines;
- January 27, 2026: Two community-specific in-person CISs #2 in community. No written or verbal comments were recorded during these sessions; and
- May 27, 2026: Community-specific CIS #3 in community. Questions and concerns raised included the comparative evaluation process; the ECI selection

process; anticipated construction timelines; and the anticipated revenue for Partner First Nations on the Project.

Since Spring 2025, Dillon has and continues to correspond with Taykwa Tagamou Nation regarding Indigenous Monitor participation in environmental field surveys. Environmental field survey plans have and continue to be distributed to Taykwa Tagamou Nation. A Taykwa Tagamou Nation Indigenous Monitor has participated in the following ecological field surveys.

Table 3-21: Indigenous Monitor ecological field survey participation dates for Taykwa Tagamou Nation

Date	Ecological field survey
August 12 to 14, 2025	eDNA and watercourse crossing assessments
August 15 and 16, 2025	Watercourse crossing drone imagery and bank swallow surveys
May 28 and 29, 2026	Basking turtles and eDNA sampling

Hydro One continues to engage with Taykwa Tagamou Nation regarding participation in environmental field surveys planned for summer and fall 2026.

Hydro One acknowledges that attendance at, or absence from, any session, workshop or program is not an indication of a Nation's interest, concerns or position, and does not limit any Nation's right to be consulted.

Table 3-22: Summary of non-confidential Taykwa Tagamou Nation comments and concerns received as of June 5, 2026

Theme	Question/Comment	Response
Construction	How are contractors selected for the Project?	RFPs are issued for the various stages of the Project specifically to companies with demonstrated experience managing initiatives of a similar scale and complexity, including previous work on large-scale Hydro One infrastructure. Proponents are evaluated through the procurement process based on their qualifications, technical experience, and demonstrated ability to successfully deliver the required scope of work.
Construction	How long will construction take?	Construction for the Project is anticipated to begin in 2028, with the transmission line scheduled to be in service by 2030.
Construction	Is construction anticipated to occur through the winter?	Construction is expected to occur year-round.
Preferred Route	How was the preferred route selected for the Project?	The preferred route was selected through a comparative evaluation that balanced four equally weighted categories: • Indigenous Culture, Values, and Land Use; • Natural Environment; • Socio-Economic Environment; and • Technical and Cost Considerations. Over the course of the comparative evaluation, data was gathered from environmental field surveys, engineering assessments, and extensive consultation with Partner First Nations, government agencies, and the public. To ensure objectivity, a weighted MCDA was used to compare the alternative routes, leading to the selection of a preferred route that follows existing transmission corridors where possible to minimize new environmental fragmentation, avoid sensitive habitats and cultural sites, and ensure safe, reliable operations.

3.11.5.15. Métis Nation of Ontario

Métis Nation of Ontario Regions 2 and 3 were identified on the Crown DTC delegation letter as communities to be engaged on the Project.

Hydro One emailed Métis Nation of Ontario on May 30, 2025, introducing the Project and providing an advanced copy of the NoC. An introductory meeting was held on June 5, 2025, at which Hydro One and Métis Nation of Ontario discussed the Project and regional boundaries. Métis Nation of Ontario noted that mapping indicated the Project might pass through Region 4, which is outside the designated engagement regions, and committed to reviewing this further.

A follow-up meeting was held on September 29, 2025, addressing the Region 4 question, the potential for a CFA, and Métis Nation of Ontario's request for engagement before a preferred route was selected. Métis Nation of Ontario expressed interest in a dedicated advisor position funded through the CFA. On October 2, 2025, Métis Nation of Ontario formally requested a CFA to fund two staff positions to support multiple Hydro One transmission projects.

Negotiations on a CFA structure continued through the fall and winter of 2025 and into 2026. Métis Nation of Ontario raised concerns in October 2025 about the timeline for route selection, noting that consultation was in early stages without an executed CFA. Hydro One responded that the selection timeline had been extended to early 2026 and committed to prioritizing meetings with the Project team.

A multi-Project CFA was proposed by Hydro One and provided to Métis Nation of Ontario on November 19, 2025. Following discussions about how the agreement would interact with future Hydro One projects, Métis Nation of Ontario introduced a new Consultation Advisor for Regions 3 and 5 in December 2025 and requested a workplan for 2026. Hydro One provided a revised Project-specific CFA in February 2026, removing the multi-Project staff allocation at Métis Nation of Ontario's request and adding a community-led initiative provision.

Métis Nation of Ontario also requested collaborative mapping exercises to collect Métis community Values along the proposed alternative routes and requested meetings with the Regional Consultation Committees as the elected decision-makers for the DTC. These engagement activities are planned for 2026. Hydro One will continue to work with Métis Nation of Ontario to ensure that Métis community Values and interests are meaningfully considered as the Project advances.

3.12. Federal government and agencies

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

- Members of Parliament (MP);
  - Carol Hughes, Former MP for Algoma-Manitoulin-Kapuskasing;
  - Gaétan Malette, MP for Kapuskasing-Timmins-Mushkegowuk;
  - Charlie Angus, Former MP for Timmins-James Bay;
  - Terry Sheehan, MP for Sault Ste. Marie-Algoma; and
  - Jim Bélanger, MP for Sudbury East-Manitoulin-Nickel Belt.
- CN Rail;
- CPKC;
- ECCC;
- DFO;
- Nav Canada; and
- TC.

As of June 5, 2026, no comments or concerns have been raised by MPs.

Table 3-23 below summarizes the key engagement milestones with federal government and agencies throughout the Class EA.

Table 3-23: Key engagement milestones with federal government and agencies

Date	Consultation Method	Purpose
June 9, 2025	Letters and Email	NoC of Class EA and COH #1 invitation.
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively.
July 17, 2025	Email	Invitation to Agency TAC workshop #1 issued to CN Rail, CPKC, ECCC, DFO and TC.
July 29, 2025	Workshop	Agency TAC workshop #1 held virtually for Natural Environment and Socio-Economic Environment categories.
November 17, 2025	Email	Invitation to Agency TAC workshop #2 issued to CN Rail, CPKC, ECCC, DFO and TC.
November 27, 2025	Workshop	Agency TAC workshop #2 held virtually for Natural Environment and Socio-Economic Environment categories.
January 14 and 23, 2026	Letters and Email	Route refinements shared and COH #2 invitation.
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively.
May 1, 2026	Email	Invitation to Agency TAC workshop #3 issued to CN Rail, CPKC, DFO, Nav Canada and TC.
May 12, 2026	Workshop	Agency TAC workshop #3 held virtually for Natural Environment and Socio-Economic Environment categories.
May 14-15, 2026	Email	Announcement of the preferred route and COH #3 invitation.

Date	Consultation Method	Purpose
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively.

In April 2025, federal electoral boundaries were officially enacted. Within the boundary updates, the Algoma-Manitoulin-Kapuskasing riding was split into the Sault Ste. Marie-Algoma and Kapuskasing-Timmins-Mushkegowuk ridings, which includes the former riding of Timmins-James Bay. Accordingly, the RoC (**Appendix B-6**) encompasses all correspondence throughout the Project with both incumbent and former MPs.

3.12.1. Carol Hughes, MP for Algoma-Manitoulin-Kapuskasing

As of June 5, 2026, no comments or concerns have been raised.

3.12.2. Charlie Angus, MP for Timmins-James Bay

As of June 5, 2026, no comments or concerns have been raised.

3.12.3. Gaétan Malette, MP for Kapuskasing-Timmins-Mushkegowuk

As of June 5, 2026, no comments or concerns have been raised.

3.12.4. Jim Bélanger, MP for Sudbury East-Manitoulin-Nickel Belt

As of June 5, 2026, no comments or concerns have been raised.

3.12.5. Terry Sheehan, MP for Sault-Ste. Marie

As of June 5, 2026, no comments or concerns have been raised.

3.12.6. Canadian National Railway

In response to the Project NoC, CN Rail outlined its primary Project requirements. CN Rail identified its infrastructure, and operations should not be impaired during construction, noting that any work performed on CN Rail property must be coordinated through a formal work permit to ensure all railway safety precautions are met.

In May 2026, CN Rail requested a copy of the draft ESR for review. Hydro One clarified that draft ESR is anticipated to be available for review in fall 2026.

3.12.7. Canadian Pacific Kansas City Limited

As of June 5, 2026, no comments or concerns have been raised.

3.12.8. Environment and Climate Change Canada

Following the Agency TAC committee invitation, ECCC requested expectations for their participation and the baseline level of Project detail required. Hydro One clarified that ECCC was included due to the potential for the Project to affect federally protected SAR. In response, ECCC stated that its EA Branch would formally participate in the Class EA process only if the Project triggers a federal IA or directly involves federal lands where a federal authority formally requests their specialized expertise. ECCC also provided standard guidance on the SARA permit application system should a permit be deemed necessary. Based on this jurisdictional clarification, Hydro One confirmed it would remove ECCC from the Agency TAC.

3.12.9. Fisheries and Oceans Canada

As of June 5, 2026, no comments or concerns have been raised.

3.12.10. Nav Canada

In response to the Project NoC, Nav Canada requested the geographic coordinates and heights of the proposed transmission towers, as well as parameters for any associated construction cranes. To facilitate the regulatory process, Nav Canada provided the necessary land-use permit applications required for the Project. Hydro One explained the Project had not advanced to detailed design, which is required to identify specific tower locations. Hydro One noted that a preferred route was expected to be selected by the end of 2025, which would allow detailed routing design and tower location in 2026. Hydro One committed to utilizing the provided application forms to initiate the formal Nav Canada assessment process once technical planning progressed and invited Nav Canada to attend the first Agency TAC workshop.

In response, Nav Canada acknowledged the Project planning timeline, and would be able to complete a formal assessment or issue binding comments once the finalized structural data is received.

3.12.11. Transport Canada

In response to the Project NoC, TC advised Hydro One that the department does not require receipt of all standard Comprehensive or Class EA Project notifications. Instead, TC requested that Hydro One self-assess whether the Project would physically interact with federal property or require specific approvals under the various legislative Acts administered by the department. To assist with this process, TC provided regulatory guidance on their applicable Acts and directed that further correspondence be channeled to specific departmental contacts should their formal involvement become necessary.

In April 2026, TC inquired if there was potential for the Project to intersect any federal lands and require an IA.

Following Agency TAC workshop #3, TC's Navigation Protection Program (NPP) noted they had opened a pre-submission file for the Project under the CNWA and provided regulatory guidance regarding proposed water crossings. TC noted that if planned aerial cables or submerged lines satisfy the criteria of the *Minor Works Order*, formal approval is not required, provided the proponent files a Notification of a Minor Work via the NPP External Submission Site prior to construction. TC indicated for any crossings failing to meet these minor works criteria, Hydro One would have to submit formal applications for approval. Hydro One noted they would provide Project plans as more detailed engineering work was completed.

3.13. Provincial government & agencies

As part of consultation and engagement for the Project, the following provincial government representatives and agencies were notified:

- Members of Provincial Parliament (MPP):
  - Bill Rosenberg, MPP for Algoma-Manitoulin;
  - George Pirie, MPP for Timmins;
  - Guy Bourgoin, MPP for Mushkegowuk-James Bay;
  - France Gélinas, MPP for Nickel Belt; and

    - John Vanthof, MPP for Timiskaming-Cochrane.

- IO;
- MRCA;
- Ministry of Agriculture, Food and Agribusiness (OMAFA);
- MCM;
- Ministry of Economic Development, Job Creation and Trade (MEDJCT);
- MEM;
- MECP;
- MMAH;
- MNR;
- Ministry of Northern Economic Development and Growth (MNEDG);
- MTO;
- Ministry of Tourism, Culture and Gaming (MTCG); and
- Ontario Provincial Police (OPP).

Table 3-24 below summarizes the key engagement milestones with provincial government and agencies throughout the Class EA.

Table 3-24: Key engagement milestones with provincial government and agencies

Date	Consultation Method	Purpose
June 9 and 16, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively
July 17, 2025	Email	Invitation to Agency TAC workshop #1 issued to IO, MRCA, OMAFA, MCM, MEM, MECP, MMAH, MNR, and MTO
July 29, 2025	Workshop	Agency TAC workshop #1 held virtually for Natural Environment and Socio-Economic Environment categories

Date	Consultation Method	Purpose
November 17, 2025	Email	Invitation to Agency TAC workshop #2 issued to IO, MRCA, OMAFA, MCM, MEM, MECP, MMAH, MNR, and MTO
November 27, 2025	Workshop	Agency TAC workshop #2 held virtually for Natural Environment and Socio-Economic Environment categories
January 14 and 23, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 1, 2026	Email	Invitation to Agency TAC workshop #3 issued to IO, MRCA, OMAFA, MCM, MEDJCT, MEM, MECP, MMAH, MNR, and MTO.
May 12, 2026	Workshop	Agency TAC workshop #3 held virtually for Natural Environment and Socio-Economic Environment categories
May 14 and 15, 2026	Email	Announcement of the preferred route and COH #3 invitation
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.13.1. Bill Rosenberg, MPP for Algoma-Manitoulin

As of June 5, 2026, no comments or concerns have been raised.

3.13.2. George Pirie, MPP for Timmins

As of June 5, 2026, no comments or concerns have been raised.

3.13.3. Jamie West, MPP for Sudbury

As of June 5, 2026, no comments or concerns have been raised.

3.13.4. Guy Bourgoin, MPP for Mushkegowuk-James Bay

As of June 5, 2026, no comments or concerns have been raised.

3.13.5. France Gélinas, MPP for Nickel Belt

Following receipt of the COH #2 invitation, Hydro One met with MPP Gélinas on January 30, 2026, to provide an overview of the Project and how the electricity system works.

3.13.6. John Vanthof, MPP for Timiskaming-Cochrane

As of June 5, 2026, no comments or concerns have been raised.

3.13.7. Infrastructure Ontario

As of June 5, 2026, no further engagement has occurred with IO, and no comments or concerns have been received.

3.13.8. Mattagami Region Conservation Authority

In October 2025, Dillon emailed the MRCA to request shapefiles outlining regulated areas and SWP mapping within the MRCA's jurisdiction. The MRCA clarified that the City of Timmins would need to be contacted directly to obtain the requested SWP datasets and provided Dillon with an appropriate municipal contact to facilitate the transfer.

3.13.9. Ministry of Agriculture, Food and Agribusiness

As of June 5, 2026, no further engagement has occurred with the OMAFA and no comments or concerns have been received.

3.13.10. Ministry of Citizenship and Multiculturalism

In response to the Project NoC, the MCM provided an initial response letter outlining the preliminary baseline processes Hydro One must fulfill for the Project. Within this guidance, the MCM recommended the completion of a CHEC and requested that Hydro One submit all completed cultural heritage studies for technical review prior to issuing the Project's formal Notice of Completion.

During Agency TAC workshop #3, the MCM requested an update on the status of the CHEC and Stage 1 AA and Hydro One noted that the reports are in progress.

3.13.11. Ministry of Economic Development, Job Creation and Trade

As of June 5, 2026, no further engagement has occurred with the MEDJCT, and no comments or concerns have been received.

3.13.12. Ministry of Energy and Mines

As of June 5, 2026, no further engagement has occurred with the MEM, and no comments or concerns have been received.

3.13.13. Ministry of the Environment, Conservation and Parks

During Agency TAC workshop #1, the MECP requested that Hydro One include its northern region in all future Project correspondence.

Following Agency TAC workshop #1, the MECP submitted preliminary Project comments alongside an "Areas of Interest" guidance document to inform the Class EA. The document outlined detailed considerations for local Official Plans (OPs), climate change impacts, SWP areas, air quality, dust and noise suppression, ecosystem protection and restoration, SAR, surface and groundwater management, excess materials handling, contaminated sites, servicing and utilities, mitigation and monitoring frameworks, as well as ongoing consultation expectations.

Between August and September 2025, Dillon corresponded with the MECP to discuss localized requirements for an alternative route alignment passing through the City of Timmins' landfill Contaminant Attenuation Zone (CAZ). On September 4, 2025, the MECP issued its technical position, stating it held no objections to the installation of a transmission line within the CAZ, provided that existing groundwater monitoring wells and sampling access remain entirely unaffected, operational landfill activities are not hindered, and the City of Timmins retains its foundational groundwater rights.

Following COH #2 in South Porcupine, the MECP submitted a comment form requesting that the ministry be notified if any transmission infrastructure upgrades or construction activities are planned for the Ivanhoe Lake Road corridor.

3.13.14. Ministry of Municipal Affairs and Housing

As of June 5, 2026, no further engagement has occurred with the MMAH, and no comments or concerns have been received.

3.13.15. Ministry of Natural Resources

In response to the Project NoC, the MNR requested shapefiles of alternative routes.

On August 13, 2025, the MNR recommended adding dedicated criteria to assess impacts on natural heritage features, designated remote tourism lakes, lake trout lakes, and forestry AOCs, offering to share corresponding provincial spatial data to support the modeling. The MNR also attached its Northeast Region Information Package to clarify its regulatory role and provincial resource interests.

In November 2025, Dillon requested the spatial data from the MNR outlining natural heritage and resource features within the general Project area.

3.13.16. Ministry of Northern Economic Development and Growth

As of June 5, 2026, no further engagement has occurred with the MNEDG, and no comments or concerns have been received.

3.13.17. Ministry of Transportation

The MTO requested shapefiles of the alternative routes for the Project on July 30, 2025, to provide preliminary comments. Following the Agency TAC workshop #3, MTO let Hydro One know that MTO will provide comments and feedback related to any provincial highways in proximity to or crossing the preferred route.

3.13.18. Ministry of Tourism, Culture and Gaming

As of June 5, 2026, no further engagement has occurred with the MTCG, and no comments or concerns have been received.

3.13.19. Ontario Provincial Police

As of June 5, 2026, no further engagement has occurred with the OPP, and no comments or concerns have been received.

3.14. Municipal governments

As part of consultation for the Project, Hydro One engaged the following municipal governments:

- Municipality of Wawa;
- City of Timmins; and
- Township of Chapleau.

Table 3-25 below summarizes the key engagement milestones with municipal governments throughout the Class EA.

Table 3-25: Key engagement milestones with municipal governments

Date	Consultation Method	Purpose
June 3, 2025	Email	Outreach to the Mayors and Chief Administrative Officers (CAOs) introducing the Project and upcoming engagement opportunities
June 9, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa
July 17, 2025	Email	Invitation to the Agency TAC workshop #1
July 29, 2025	Workshop	Agency TAC workshop #1 held virtually for Natural Environment and Socio-Economic Environment categories
November 17, 2025	Email	Invitation to Agency TAC workshop #2

Date	Consultation Method	Purpose
November 27, 2025	Workshop	Agency TAC workshop #2 held virtually for Natural Environment and Socio-Economic Environment categories
January 14, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 1, 2026	Email	Invitation to Agency TAC workshop #3
May 12, 2026	Workshop	Agency TAC workshop #3 held virtually for Natural Environment and Socio-Economic Environment categories
May 14 and 15, 2026	Email	Announcement of the preferred route and COH #3 invitation
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.14.1. Municipality of Wawa

Hydro One met with the Mayor and CAO on June 6, 2025, to provide a Project overview. The Mayor expressed interest in procurement opportunities. In August 2025, Dillon request shapefiles for municipal zoning maps and land use data to support the comparative evaluation

In September 2025, the Municipality of Wawa requested shapefiles of the proposed alternative routes to review potential overlaps with land-use plans.

On January 20, 2026, Hydro One provided a Project update to the Mayor.

On March 12, 2026, Hydro One met with the Mayor, CAO and Economic Development Officer to provide preliminary information about procurement.

On May 15, 2026, Hydro One met with the Mayor to provide a Project update, including the identification of the preferred route for the Project.

3.14.2. City of Timmins

Hydro One met with the Mayor, the Director of Economic Development, and the Director of Growth and Infrastructure on June 25, 2025, to provide a Project overview. The Mayor expressed interest in procurement opportunities.

The City of Timmins requested a list of stakeholders engaged on the Project as of June 25, 2025, within its boundaries and provided recommendations for additional local businesses and industries to include. During Agency TAC workshop #1, the City of Timmins raised concerns regarding Route C1 which traversed the City's landfill CAZ. Dillon requested shapefiles of the CAZ to evaluate potential impacts.

Hydro One, Dillon, and the City of Timmins met in August 2025 to evaluate the technical parameters of the proposed CAZ co-location. The City of Timmins clarified that while a high-voltage transmission line could co-exist within a landfill CAZ, Hydro One must structurally ensure that final tower placements do not interfere with existing groundwater monitoring wells, sampling access, or the City of Timmins' legal groundwater rights. Hydro One committed to ongoing engagement as detailed design progressed and confirmed that they would discuss the matter directly with the MECP to confirm regulatory alignment.

In September 2025, Dillon requested drawings outlining the limit of the landfill's future refuse area.

In November 2025, Dillon requested shapefiles of regulated areas and SWP mapping within the City of Timmins' jurisdiction.

Hydro One met with the Mayor and CAO on January 20, 2026, to provide a Project update.

In April 2026, Dillon requested shapefiles for the Intake Protection Zone (IPZ), Significant Groundwater Recharge Areas (SGRA), Highly Vulnerable Aquifers (HVA),

and Wellhead Protection Areas (WPA). In response, the City of Timmins noted the shapefiles were not available.

Hydro One met with the City of Timmins on May 28, 2026, to discuss property requirements for the Project.

3.14.3. Township of Chapleau

Hydro One met with the Mayor and CAO on June 11, 2025, to provide a Project overview. The Mayor expressed interest in Hydro One giving consideration to additional alternative routes.

Throughout August and September 2025, Hydro One requested additional shapefiles to support the comparative evaluation, including zoning maps, and land use data. Hydro One additionally inquired about airport zoning regulations for the Chapleau Municipal Airport, specifically requesting clarification regarding localized height restrictions for structures and objects situated near the facility alongside any explicit municipal regulations related to high-voltage transmission lines.

Hydro One met with the Mayor on January 20, 2026, to provide a Project update, including alternative routes.

Hydro One met with the Mayor on May 11, 2026, to provide a Project update, including the identification of a preferred route for the Project. The Mayor requested that ECIs engage with the economic development office for potential procurement opportunities.

3.15. Municipal airports

As part of consultation for the Project, Hydro One engaged the following municipal airports:

- Wawa Municipal Airport;
- Timmins Victor M. Power Airport; and
- Chapleau Municipal Airport.

As of June 5, 2026, no comments or concerns have been raised by municipal airports.

Table 3-26 below summarizes the key engagement milestones with municipal airports throughout the Class EA process.

Table 3-26: Key engagement milestones with municipal airports

Date	Consultation Method	Purpose
June 9, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively
July 17, 2025	Email	Invitation to Agency TAC workshop #1 issued to the Timmins Victor M. Power Airport.
July 29, 2025	Workshop	Agency TAC workshop #1 held virtually for Natural Environment and Socio-Economic Environment categories
November 17, 2025	Email	Invitation to Agency TAC workshop #2 issued to the Timmins Victor M. Power Airport.
November 27, 2025	Workshop	Agency TAC workshop #2 held virtually for natural environment and socio-economic categories
January 14, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 1, 2026	Email	Invitation to Agency TAC workshop #3
May 12, 2026	Workshop	Agency TAC workshop #3 held virtually for Natural Environment and Socio-Economic Environment categories
May 14 and 15, 2026	Email	Announcement of the preferred route and COH #3 invite and COH #3 invitation

Date	Consultation Method	Purpose
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.16. Local service boards

As part of consultation for the Project, Hydro One engaged the following local service boards:

- Hawk Junction Local Services Board;
- Manitoulin-Sudbury District Services Board;
- Cochrane District Services Board;
- Algoma District Services Board; and
- Gogoma Local Services Board.

As of June 5, 2026, no comments or concerns have been raised by local service boards.

Table 3-27 below summarizes the key engagement milestones with local service boards throughout the Class EA.

Table 3-27: Key engagement milestones with local service boards

Date	Consultation Method	Purpose
June 9, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively
July 17, 2025	Email	Invitation to Agency TAC workshop #1 issued to Manitoulin-Sudbury District Services Board and Algoma District Services Board
July 29, 2025	Workshop	Agency TAC workshop #1 held virtually for Natural Environment and Socio-Economic Environment categories

Date	Consultation Method	Purpose
November 17, 2025	Email	Invitation to Agency TAC workshop #2 issued to Manitoulin-Sudbury District Services Board and Algoma District Services Board
November 27, 2025	Workshop	Agency TAC workshop #2 held virtually for Natural Environment and Socio-Economic Environment categories
January 14, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 1, 2026	Email	Invitation to Agency TAC workshop #3
May 12, 2026	Workshop	Agency TAC workshop #3 held virtually for Natural Environment and Socio-Economic Environment categories
May 14 and 15, 2026	Email	Announcement of the preferred route and COH #3 invitation
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.17. Potentially affected and interested groups, businesses, school boards and utilities

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

As part of consultation and engagement as of June 5, 2026, approximately 171 potentially affected and interested groups, businesses, school boards, and utilities have been contacted. A complete list of the interest groups is provided in **Appendix B-1**.

Table 3-28 below summarizes the key engagement milestones with potentially affected and interested groups throughout the Class EA.

Table 3-28: Key engagement milestones with potentially affected and interest groups

Date	Consultation Method	Purpose
June 9 and 10, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively
January 14, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 14 and 15, 2026	Letters and Email	Announcement of the preferred route and COH #3 invitation
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.17.1. Air Ivanhoe

Air Ivanhoe provided feedback through the interactive map about the alternative routes being considered for the Project, including how the Project interacts with Ivanhoe Lake Provincial Park, and concerns about potential interaction with tourism-based waterbodies. Air Ivanhoe expressed a preference for alternative routes B1 or B2 in May 2026. Hydro One requested a meeting and continues to engage with Air Ivanhoe to gather additional feedback and to better understand Air Ivanhoe's concerns.

Air Ivanhoe submitted additional comments through the interactive map on May 29, 2026. The comments identified brook trout habitat, reiterated concerns regarding the Project's potential interaction with Ivanhoe Lake Provincial Park, and highlighted Biggs Lake as an important waterbody for remote tourism activities. Hydro

One continues to engage with Air Ivanhoe to better understand and address these concerns as Project planning progresses.

3.17.2. Algoma Power Inc.

In December 2025, Dillon requested shapefiles of Algoma Power Inc.'s distribution system within the general Project area to support the comparative evaluation for the Project, which Algoma Power Inc. subsequently provided.

3.17.3. Boom Lake Cottage Association

During COH #3, community members in the Boom Lake area raised concerns about the preferred route's proximity to and crossing of Boom Lake, including potential effects on areas used for recreational activities. Community members requested Hydro One consider realigning portions of the corridor to avoid or increase separation from cottage areas, including between Boom Lake and Star Lake. They also identified potential bald eagle habitat and nesting sites in the area.

3.17.4. CRD Energy Consulting

CRD Energy Consulting submitted a comment through the interactive map on February 6, 2026, inquiring if the Weston Lake DS would be connected to the Project. CRD Energy Consulting additionally inquired if the DS would be upgraded to create connection space for new generation and load requirements in the region. Hydro One clarified that the Project will not connect to the Weston Lake DS noting that the IESO is responsible for planning Ontario's long-term energy needs and station upgrades.

3.17.5. Discovery Porcupine

In response to the Project NoC, Discovery Porcupine requested a meeting with Hydro One to review the proposed alternative routes and understand their proximity to the various mining properties and claims. Discovery Porcupine requested shapefiles of the alternative routes. Hydro One provided the shapefiles.

Hydro One met with Discovery Porcupine on July 17, 2025, to discuss potential impacts of the proposed alternative routes on their lands.

In January 2026, Hydro One emailed Discovery Porcupine regarding refinements made to the alternative routes.

In February 2026, Discovery Porcupine provided Hydro One with a copy of a recent easement agreement that included specific language regarding mining rights. Hydro One confirmed receipt of these documents and committed to integrating the provided language into the ongoing real estate assessment for the Project.

Throughout April 2026, Hydro One and Discovery Porcupine discussed potential impacts to mining operations. Discovery Porcupine requested shapefiles of the proposed alternative routes, requesting the inclusion of required buffer areas and easement boundaries. To mitigate conflicts with active operations, Discovery Porcupine suggested exploring modifications to the alternative routes.

Discovery Porcupine also highlighted long-term electrical load needs for their mining operations, requesting contacts from Hydro One to lead ongoing power requirement discussions.

3.17.6. Eastwood Forests LLC

Hydro One met with Eastwood Forests LLC on July 16, 2025, to discuss alternative routes for the Project. Eastwood Forests LLC noted a preference for Route B2 over the original alternative Route B4, given the potential impact on operational routes for the corporation. Eastwood Forests LLC agreed to share operational data following the signing of a non-disclosure agreement (NDA).

In January 2026, Hydro One provided refinements made to the alternative routes to Eastwood Forests LLC for review.

3.17.7. FACTS Ltd. (Grant Lake Forest Resource)

FACTS Ltd. is the property manager for Grant Lake Forest Resources.

Hydro One called FACTS Ltd. on July 18, 2025, to discuss alternative routes for the Project. FACTS Ltd. proposed an alternative route running south of Wawa through Crown Land to avoid interference with an aggregate pit and planned mining site.

In February 2026, Hydro One provided FACTS Ltd. with maps of the PSA, including alternative routes for the Project. Hydro One proposed reconnecting in mid-March 2026 to focus on executing an early access agreement to facilitate upcoming environmental field surveys.

Throughout April and May 2026, Hydro One and FACTS Ltd. exchanged correspondence regarding an access agreement for environmental field surveys planned for summer 2026.

During COH #3 in Wawa on June 4, 2026, FACTS Ltd. submitted a comment form requesting that future Project maps explicitly outline access roads and clarify whether they will be designated for vehicular or pedestrian access.

3.17.8. GreenFirst Industries Inc.

Following discussions at COH #2 in South Porcupine on February 2, 2026, Dillon provided GreenFirst Industries Inc. with shapefiles of the alternative routes for the Project on February 4, 2026.

3.17.9. Interfor Corporation

In May 2026, Interfor Corporation requested a shapefile of the Project's preferred route, which Hydro One subsequently provided.

3.17.10. Laborer’s International Union of North America

Hydro One noted their priority to support the local labour market to representatives from the Laborer’s International Union of North America during COH #1 in South Porcupine on July 7, 2025. Hydro One noted that as the Project progresses towards construction, more information on local opportunities will be made available regarding employment opportunities.

3.17.11. Loyalist Exploration Ltd.

Following COH #2 in South Porcupine, on February 2, 2026, Loyalist Exploration Ltd. provided comments on the alternative routes for the Project. Loyalist Exploration Ltd. noted potential conflicts with future development along an alternative route. Loyalist

Exploration Ltd. requested universal transverse Mercator (UTM) coordinates, and confirmation that future exploration could still take place within the ROW.

In March 2026, Hydro One and Loyalist Exploration Ltd. discussed executing an NDA. Hydro One noted the agreement will allow both parties to share details regarding future proposed developments and collaborate on a mutually beneficial solution.

3.17.12. Missinaibi Forest Management Inc.

Following COH #2 in South Porcupine, on February 2, 2026, Missinaibi Forest Management Inc. filled out a comment form and requested shapefiles of the alternative routes for the Project. Missinaibi Forest Management Inc. noted they would identify any potential conflicts with forestry operations on the Missinaibi and Romeo Malette forests. Missinaibi Forest Management Inc. requested to be informed when the preferred route is selected. The preferred route was announced to the general public in May 2026.

3.17.13. Moose Horn Lodge

Moose Horn Lodge provided feedback through the interactive map on May 28, 2026, about potential Project visibility and how it may affect their remote-tourism based operation.

3.17.14. Ontario Fur Managers Federation

During COH #1 in South Porcupine, on July 7, 2025, the Ontario Fur Managers Federation (OFMF) inquired if compensation would be provided to directly impacted trappers. Hydro One confirmed its commitment to work with directly impacted trappers to mitigate concerns, which may include offering compensation.

During COH #1 in Wawa, on July 9, 2025, the OFMF requested the addition of trapping licence areas to the interactive map; Hydro One subsequently updated the interactive map.

Throughout May 2026, Hydro One coordinated with the OFMF to distribute information packages to trappers directly impacted by the identification of the Project's preferred route.

3.17.15. P.N.G. Logging Inc.

On January 23, 2026, Hydro One called P.N.G. Logging Inc. to discuss potential impacts to their property. Hydro One offered to schedule a meeting to discuss the matter further.

3.17.16. Pan American Silver Corp.

In January 2026, Hydro One notified Pan American Silver Corp. that Routes C1 and C2 could potentially impact their property. Maps of overlap with mining claims were provided.

3.17.17. Pine Valley Property Development

In February and March 2026, Pine Valley Property Development requested to be informed about engagement pathways for Indigenous contractors and subcontracting opportunities on the Project. Hydro One noted contracting opportunities would become available as the Project progressed into construction.

3.17.18. Porcupine Ski Runners Inc.

Following COH #1 in South Porcupine, on July 7, 2025, Porcupine Ski Runners Inc. provided feedback about potential impacts to their Olympic Ski Trail loop in proximity to the alternative routes. Porcupine Ski Runners Inc. provided a ski trail map and requested an alternative route be refined to cross trails perpendicular to reduce impacts.

In January 2026, Hydro One noted that Route C1 had been refined to accommodate the trail system.

3.17.19. Praztek Construction

In June 2025, Praztek Construction inquired if their properties would be impacted by the Project. Praztek Construction noted they own many properties across Timmins and requested clarification on which ones would be impacted. Hydro One noted Route C1 and C2 for the Project traversed their properties. Hydro One noted property-specific maps were being prepared. A link to the Project website was provided.

Following discussions at COH #1 in South Porcupine on July 7, 2025, Hydro One noted that potentially impacted landowners would be contacted by the Project team once a preferred route was selected.

3.17.20. Storm Creek Farms

Storm Creek Farms attended COH #2 in Timmins on February 2, 2026, and spoke with Hydro One about potential impacts to their property. Hydro One met with Storm Creek Farms on February 3, 2026, to review the proximity of a newly built barn to Routes C1 and C2. Storm Creek Farms raised concerns that tree clearing may reduce privacy, with Hydro One clarifying that the barn sits outside the proposed ROW, noting that this corridor serves as the only alternative route in and out of Timmins. However, to maintain adequate tree coverage, Hydro One noted micro-adjustments could be made to the alignment to increase the distance from the barn to maintain tree coverage.

3.17.21. Tanager Resources Limited

In April 2026, Hydro One notified Tanager Resources Limited that the Project may impact their property.

3.17.22. Villeneuve Construction Co Ltd.

In January 2026, Villeneuve Construction Co Ltd. (Villeneuve Construction) expressed concerns regarding Route C1 traversing their property line in Timmins. Villeneuve Construction indicated that Route C1 is incompatible with current land uses, as it would place the transmission line directly within an active sand pit and the blast radius of their quarry operations. Villeneuve Construction noted that they have made substantial investments in the property in coordination with the City of Timmins to support their active extraction and blasting operations. While identifying Route C2 as the preferred route for segment C, Villeneuve Construction cautioned Hydro One about potential conflicts with that alignment, as well, due to ongoing blasting.

During a subsequent call, Villeneuve Construction expressed interest in collaborating with Hydro One, provided that their existing property plans and permits would not be impeded.

3.17.23. Wahkohtowin Development GP Inc.

Following requests from Brunswick House First Nation and Chapleau Cree First Nation to engage with Wahkohtowin Development on the Project, Hydro One met with Wahkohtowin Development on July 8, 2025. The purpose of the meeting was to discuss ongoing initiatives and explore how they could support data collection for the Project's Class EA. This included potentially sharing forestry data collected in the area as well as sharing community Values to help inform routing decisions.

3.18. Additional engagement

As outlined in **Section 3.0**, landowners, residents, and general members of the public were provided Project notifications by Canada Post admail, advertisements in local newspapers, radio, social media, email, and via the Project website.

An admail campaign with an invitation to COH #1 was mailed to approximately 2,400 recipients within an approximately 5 km buffer around the alternative routes' centrelines. Hydro One also received feedback and comments by phone, via email to the Community Relations team, and through the interactive map.

As noted under **Section 3.4**, **Section 3.6**, and **Section 3.8** prior to COH #1, COH #2, and COH #3, respectively, Hydro One also sent packages to potentially affected landowners along each alternative route noting the specific property affected and specific alternative route(s) traversing the property(ies). The packages included the NoC and an invitation to COH #1, COH #2, and COH #3, respectively, along with contact information for further questions. These were hand delivered by land agents or sent through registered mail.

Throughout the Project, Hydro One had over 400 interactions with landowners, residents, and general members of the public via phone, email, the interactive map, and virtual/in-person meetings. This also included direct meetings with landowners throughout the Project.

The key consultation activities with landowners, residents, and general members of the public throughout the Class EA process are summarized in **Table 3-29** below.

Table 3-30 in **Section 3.19** summarizes comments received at COHs and the responses provided by Hydro One.

A copy of the RoC with landowners, residents, and members of the public under the Project's Class EA framework are included in **Appendix B-6**.

Table 3-29: Key Consultation with landowners, residents and general members of the public

Date	Consultation Method	Purpose
June 9 and 10, 2025	Letters and Email	NoC of Class EA and COH #1 invitation
July 7 to 9, 2025	Event	COH #1 in South Porcupine, Chapleau, and Wawa, respectively
January 12 and 14, 2026	Letters and Email	Route refinements shared and COH #2 invitation
February 2 to 4, 2026	Event	COH #2 in South Porcupine, Foleyet, Chapleau, and Wawa, respectively
May 14 and 15, 2026	Email	Announcement of the preferred route and COH #3 invitation
June 2 to 4, 2026	Event	COH #3 in South Porcupine, Chapleau, and Wawa, respectively

3.19. Summary of comments and concerns

Table 3-30 below provides a consolidated summary of the comments and concerns raised from the interested parties at COHs as representative of frequent comments received throughout the Class EA consultation process. Some of the responses to comments and questions evolved as the Project progressed, and it is noted that responses included in **Table 3-30** are based on the latest available Project information. Since the selection of the preferred route, Hydro One's real estate representatives have continued to work with directly impacted landowners on matters specific to their property(ies).

Table 3-30: Summary of stakeholder comments and concerns received on the Project

Theme	Question/Comment	Response
Class EA	Where will the Project's Class EA commitments be officially recorded, and who is responsible for making sure they are carried out?	This ESR and the Project-specific Environmental Management System (EMS) will identify all required mitigation measures. The EPP will be drafted by the contractor prior to the start of construction, incorporating both the commitments made within this ESR and applicable regulatory permitting conditions. Detailed mitigation measures and commitments for potential Project impacts are outlined in **Table 7-1** of this ESR.
Class EA	What are the potential cumulative effects of this Project?	As part of the Project planning and the Class EA process, a CEA was completed, which reviews nearby projects where documentation is available to assess their cumulative impact. **Section 7.11** further discusses the analysis of the Project's cumulative effects.
Class EA	Is the government fast-tracking or speeding up the environmental and regulatory approvals for this Project?	The Project is proceeding in accordance with the applicable provincial and federal regulatory processes. While there is a broader government interest in improving the efficiency of infrastructure approvals, the Project must still satisfy legislative, environmental, consultation, and permitting requirements. Hydro One will continue to monitor regulatory guidance and government direction.
Class EA	How are Project conflicts identified and/or addressed?	Through the Class EA process, potential conflicts have been identified through environmental surveys and engagement with Indigenous communities, federal, provincial and municipal agencies, as well as directly impacted stakeholders. Through engagement, Hydro One has worked to identify potential conflicts and propose mitigation measures to avoid adverse impacts, where possible.
Construction	Will potential road damage from construction equipment related to the Project be repaired?	Impacts to roads and trails during construction will be mitigated to the extent possible. However, if any damage to roads, due to heavy construction equipment occurs, the roads will be repaired following construction.
Construction	What are the construction needs and employment opportunities for the Project?	The Project will require a diverse range of personnel. Hydro One prioritizes supporting the local labour market; as the Project progresses toward construction, more information regarding local employment and procurement opportunities will be shared.
Construction	Can members of the public collect timber removed during construction of the Project?	Trees within the transmission line ROW will be cleared as necessary to facilitate construction and ensure the long-term safe, reliable operation of the line. Specific clearing requirements for this Project will be finalized closer to the start of construction. Timber removed from Crown land would first be offered to the SFL holder responsible for the applicable FMU. If the licence holder declines the timber, opportunities for other parties to collect or use it may be considered in coordination with the MNR and subject to applicable approvals, access requirements, and construction safety restrictions.
Construction	When is construction expected to begin, and how long will the construction take?	Construction is anticipated to begin in 2028, pending the receipt of all necessary regulatory approvals and permits. The transmission line is projected to be in-service by 2030.

Theme	Question/Comment	Response
Construction	What are the anticipated vibration effects of the Project during construction?	During construction noise and vibration effects are anticipated to be short-term, temporary, and transient. Vibration is expected to be temporary, occurring only during specific activities (e.g., implosive splicing), and be limited to the immediate vicinity of the construction work area. The potential effects of vibration during construction and operation of the Project are further discussed in **Section 7.3.6**, **Section 7.5.3**, and **Table 7-1** of this ESR**.**
Construction	What are the plans for building and utilizing access roads during the construction and long-term maintenance of the transmission line?	Access for construction and maintenance for the Project plan to use existing road and trail infrastructure where practical to limit disturbances resulting from the construction of new access roads and trails. No specific access plans are available at this stage of the Project as work is ongoing to determine where existing road and trail infrastructure can be utilized.
Construction	What plans are in place to manage the health and safety of workers during construction of the Project? Will there be a medic on-site during construction?	Project health and safety plans will be developed in collaboration with contractors closer to the start of construction.
Consultation and Engagement	How were stakeholders notified about route refinements and community events?	Hydro One notified stakeholders via registered mail, direct email updates to the Project contact list, newspaper advertisements, radio ads, and social media campaigns. Three rounds of in-person COHs were held between July 2025 and June 2026 to share refinements and gather feedback.
Consultation and Engagement	Why was a COH held in Foleyet?	Through engagement with residents of Foleyet during COH #1 and CIS sessions, Hydro One identified the desire from community members to host a COH there. Hydro One coordinated a COH on February 4, 2026. This event allowed the Project team to share recent route refinements and provided an opportunity for community members to offer additional feedback on the Project.
Consultation and Engagement	Who did Hydro One contact to receive Project notices?	Notification letters were sent via Canada Post Admail to available postal routes and PO boxes within approximately 5 km of the alternative routes' centerline. Additionally, notices were distributed to potentially impacted property owners by hand or via registered mail. To complement these direct mailings, radio and newspaper advertisements were utilized to notify local communities about the COHs held in July 2025, February 2026, and June 2026.
Consultation and Engagement	Was the Métis Nation of Ontario consulted, and did Hydro One obtain their prior informed consent for this Project?	Métis Nation of Ontario Regions 2 and 3 were initially identified on the DTC letter issued by the MEM. Accordingly, Hydro One has been providing ongoing opportunities for meaningful engagement throughout the Class EA process, with formal engagement commencing following the NoC. Métis Nation of Ontario Region 4 was subsequently identified by the MEM in September 2025, and engagement with that region began shortly thereafter. For more information on engagement with Métis Nation of Ontario, see **Section 3.11.5.15**.
Consultation and Engagement	Was Wabun Tribal Council consulted on the Project?	Wabun Tribal Council has been actively consulted on the Project and has attended multiple engagement meetings as of June 5, 2026.

Theme	Question/Comment	Response
Detail Design	What is the overall timeline for the Project, and when will the final route alignment and exact tower locations be decided?	The proposed timeline for the Project, spanning the Class EA through to the anticipated in-service date, is outlined below: • Spring 2025 - December 2025: Hydro One conducted environmental field surveys, community engagement, feedback collection, and information gathering to evaluate the alternative routes; • May 2026: The preferred route was selected and announced (consisting of alternative route segments A2, B3, and C2); • Fall 2026: The public comment period for the draft ESR is scheduled to take place; Fall/Winter 2026/2027: Detail design for the preferred route alignment and determination of proposed tower placement and sitting of individual transmission towers; • Early 2027: Submission of the final ESR and formal completion of the Class EA; • Late 2027: Construction of the transmission line infrastructure is anticipated to begin, pending all necessary regulatory approvals; and • 2030: The Project is targeted to be fully operational and in-service.
Detail Design	What is the anticipated width of the new transmission corridor?	The ROW will be 75 m wide.
Detail Design	Will the transmission line be constructed on the east or west side of the existing transmission line How much land will be cleared or affected by the Project?	The proposed transmission line is currently planned to parallel existing transmission line corridors, with its location on either side of the existing corridor varying by location. The amount of land affected by the Project will be determined during detailed design. Hydro One will seek to use existing corridors and previously disturbed areas where practical to reduce the need for new clearing. Where clearing is required, it will be limited to the area needed to safely construct, operate, and maintain the transmission line, including the ROW, access routes, and temporary construction work areas. Potential effects will continue to be assessed through the Class EA process and throughout construction, and appropriate mitigation measures will be identified to avoid or reduce impacts where feasible.
Detail Design	Will the Project involve towers or lines, and what type will be used?	The Project will consist of support structures (towers) and conductors (lines). The specific material types and structural designs will be finalized during detail design in fall/winter 2026/2027.
Detail Design	Why is minimizing the number of angles in the transmission line design important?	Reducing the number of angles along the transmission line lowers construction and maintenance costs by reducing structural requirements, including the amount of steel and the complexity of tower foundations. Straighter alignments also allow for greater use of standardized tower designs, facilitate conductor stringing, and reduce the risk of structural failure.
Detail Design	What is required to have the line go from operating as a 230 kV line to a 500 kV line?	The transmission line is being constructed to 500 kV standards, but will initially operate at 230 kV, with the TS connections configured to also operate at 230 kV. When operation at 500 kV is required, new 500 kV station yards will need to be established at both ends of the line, and the line will need to be re-terminated at the new 500 kV positions.

Theme	Question/Comment	Response
Detail Design	What will a 500 kV tower look like? How many conductors will there be?	A single-circuit 500 kV transmission tower typically consists of either a guyed-V lattice steel structure or a self-supporting lattice steel tower. These towers are generally approximately 45 m tall and carry 12 conductors, with four conductors per phase, as well as overhead shield wires. Final tower design will be determined during detail design in fall/winter 2026/2027.
ECI / EPC	When will the ECI work take place? What is the schedule for its completion?	ECI work is expected to support the upcoming stages of Project development, including constructability reviews, access planning, field investigations, permitting, mobilization, and construction preparation. An important component of the ECI process is meaningful engagement with the Partner First Nations, including consideration of opportunities for participation, procurement, and involvement in Project planning and delivery. Two competing ECI firms were selected in the first quarter of 2026. Preliminary detailed design will progress throughout 2026, with the final selection of an EPC contractor expected by the end of 2026.
Electricity and Power	Will the new transmission line improve local power reliability and reduce outages in Foleyet?	While local reliability is managed by the distribution system, this Project serves to reinforce the broader regional transmission network. Concurrently, Hydro One is investigating recent local outages to improve service and reliability for residential customers.
Electricity and Power	Will this Project bring electricity to communities or areas that currently do not have power?	The Project is designed to transmit bulk power around northern Ontario, strengthening the regional grid. This enhanced transmission capacity will, in turn, enable the local distribution system to expand and deliver reliable power to outlying, unserviced, and underserviced communities and areas.
Electricity and Power	How much of the planned 75% increase in power capacity is being driven by the rise of electric vehicles (EVs)?	The projected 75% increase in capacity reflects broad-based system demand growth across the regional grid. While the adoption of EVs is a contributing factor, this expanded capacity is also designed to accommodate significant industrial expansion, commercial developments, and residential population growth across the northeastern region.
Electricity and Power	What is the projected proportional allocation or load distribution of the Project's capacity among industrial, commercial, and residential consumers?	As part of long-term planning to address future economic and population growth, the IESO has identified a critical need for expanded capacity in northeastern Ontario. Once completed, the Project will reinforce the regional grid, directly supporting the growing electricity demands of the industrial, commercial, and residential sectors. A breakdown of exact proportional allocation or load distribution for the Project is unknown at this time.
Electricity and Power	Does Hydro One coordinate with telecommunication providers and other utility operators to maintain network resilience and ensure community communication channels remain functional throughout the Project lifecycle?	Hydro One does coordinate with other utilities and service providers as part of Project planning and construction activities, particularly where infrastructure crossings, relocations, or service protection measures may be required. However, landline telephone and cellular service provision falls under the jurisdiction of the respective telecommunications providers. That said, where Hydro One's work has the potential to affect existing telecommunications infrastructure, Hydro One engages directly with the applicable providers to minimize disruption and maintain service continuity wherever possible.

Theme	Question/Comment	Response
Electricity and Power	Where will the electricity for this Project come from? Can power be routed backward from the generating plant to upgrade electrical services for the Horwood Lake, Groundhog Lake, Foleyet, and Ivanhoe Lake areas?	The power grid allows electricity to flow in both directions. Power plants and generation sources are strategically located across the province; electrical energy can be drawn from any region to travel along this new transmission line to meet local needs. Conversely, during periods of surplus local generation, the transmission line can also be used to export excess power back to other parts of the provincial grid, enhancing overall system reliability and flexibility. Transmission lines are designed to convey electricity from one point to another, whereas distribution lines convey electricity at lower voltages to customers. The Project involves the construction of a transmission line to convey power from the Wawa TS to the Porcupine TS to reinforce the power supply throughout northeastern Ontario power grid. Upgrades to electrical services for the Horwood Lake, Groundhog Lake, Foleyet, and Ivanhoe Lake areas would be separate distribution projects.
Electricity and Power	Will the design and technical specifications of the Project accommodate interconnection opportunities, such as line-tapping, to service new industrial or distribution loads?	Directly tapping into the new transmission line will not be permitted due to the structural and operational differences between transmission and distribution infrastructure. Transmission lines function as the high-voltage highways of the electrical grid, typically operating at 115 kV or 230 kV to move massive volumes of bulk electricity efficiently over long distances from generating stations to entire regions. Because of these high voltages, direct localized connections are both technically unfeasible and unsafe. In contrast, supplying power to end-users requires a localized distribution system, which represents the final stage of electricity delivery. Before power can reach consumers, high-voltage electricity from transmission lines must first pass through a substation, where transformers step it down to a lower, usable voltage. Only after this reduction can electricity be safely transported over shorter distances to power homes, businesses, and industrial facilities. Consequently, any future localized connections or regional upgrades must be integrated through the local distribution network rather than directly into this new transmission line.
Electricity and Power	Does this Project require additional power generation? Will it involve constructing any new dams?	This Project is focused on transmission. Power generation planning is led by the IESO. No new dams are planned as part of this Project.
First Nations	Who are the Partner First Nations for the Project?	The nine Partner First Nations for the Project include: • Brunswick House First Nation; • Chapleau Cree First Nation; • Chapleau Ojibwe First Nation; • Flying Post First Nation; • Matachewan First Nation; • Mattagami First Nation; • Michipicoten First Nation; • Missanabie Cree First Nation; and • Taykwa Tagamou Nation. Please refer to **Section 3.11** for more information on the Partner First Nations for the Project.

Theme	Question/Comment	Response
First Nations	Will Chapleau Cree First Nation and Chapleau Ojibwe First Nation benefit from the Project?	Through Hydro One's industry-leading 50-50 First Nation Equity Partnership Model, Hydro One offered proximate First Nations the opportunity to invest a 50 per cent equity stake in the transmission line component of the Project, including Chapleau Cree First Nation and Chapleau Ojibwe First Nation. Please refer to **Section 3.11** for the full list of Partner First Nations on the Project.
First Nations	How is proximity determined for an Indigenous community to be eligible for the 50-50 First Nation Equity Partnership Model?	On December 31, 2024, the MEM provided Hydro One with a letter delegating specific procedural aspects of the Crown's DTC and identifying the Indigenous communities to be included in the consultation and engagement process. In alignment with this guidance, Hydro One extended an offer through its industry-leading 50-50 First Nation Equity Partnership Model, providing proximate First Nations the opportunity to invest in a 50% equity stake in the transmission line.
First Nations	When can an Indigenous owned businesses support the Project?	Indigenous businesses may support the Project during any phase where their services and capabilities align with Project needs and applicable procurement requirements. Hydro One will continue to work with Partner First Nations and Project contractors to identify opportunities and maximize Indigenous business participation during Project execution.
First Nations	Have Indigenous communities formally requested that the Project undergo a federal IA under the *Impact Assessment Act*?	As of June 5, 2026, Hydro One has not received notice of any formal requests from Indigenous communities for the Project to undergo a federal IA under the *Impact Assessment Act*. The Project is following the provincial Class EA for TF process. A federal IA is not currently anticipated because the Project is not located on federal lands and is not a type of transmission project identified as a designated project under the federal Physical Activities Regulations.
General Project Information	What percentage of the Project funds will be allotted to environmental mitigation?	A specific percentage of total Project costs allocated exclusively to environmental mitigation has not been finalized. Environmental protection and mitigation measures are integrated throughout Project planning, design, construction, and operations. Mitigation measures for the construction of the preferred route can be found in **Table 7-1**. As the Project advances through detailed design and permitting, environmental mitigation requirements will be further defined and costed in accordance with regulatory approvals and commitments.
General Project Information	Will the Project create new access roads that the public can use to reach previously inaccessible areas for recreational activities?	Hydro One understands transmission corridors and access roads can serve as important spaces for community use. Most temporary access will be restored following construction.
General Project Information	Will directly impacted landowners be permitted to retain timber cleared from their land for personal use?	Where vegetation clearing is required on private property, arrangements regarding the disposition of timber are typically discussed with directly impacted landowners as part of the property access or acquisition process. In many cases, directly impacted landowners may request to retain cleared timber for personal use, subject to safety requirements, construction schedules, and contractor procedures. Any such arrangements would be discussed directly with the Project's Real Estate team in advance of clearing activities.
General Project Information	What is the current valuation rate for Crown Land?	The valuation of Crown Land is set by the MNR based on location, land use, and market conditions. Hydro One follows these provincial guidelines when securing rights over Crown Land.
General Project Information	Is this a brand-new transmission line?	Yes, this is a proposed new 500 kV transmission line.

Theme	Question/Comment	Response
General Project Information	What is the estimated cost of the Project?	Hydro One knows every dollar spent comes from our hard-working customers and we are committed to reducing costs as we become the most efficient utility. A Project cost estimate is being developed and will be submitted to the OEB for approval, via a Section 92 application. Specific factors such as real estate needs and final tower/line design will factor into the Project cost.
General Project Information	How wide are the existing property easements for the current power line and its access roads?	Existing property easement widths vary and will be confirmed through a review of property records. Hydro One will use existing access roads and previously disturbed areas wherever feasible. Any requirements to upgrade existing roads, establish new access, or obtain additional property rights will be determined during detailed design.
General Project Information	What are the visual impacts of the proposed transmission line on directly impacted property owners?	Visual impacts of the transmission line are considered as part of the Class EA. Where possible, there may be refinements to the preferred route to minimize visual effects. These situations are unique to each property and discussed with directly impacted property owners. Mitigation measures proposed for visual and aesthetic resources are discussed in **Section 7.8** and **Table 7-1**.
General Project Information	Why is the existing transmission corridor near Gold Mine Road not being expanded?	Upgrading the capacity of the existing infrastructure within the transmission corridor near Gold Mine Road is not technically feasible. The existing structures cannot accommodate additional conductors due to significant power reliability constraints. Furthermore, such a modification would fail to meet the mandatory compliance standards established by the North American Electric Reliability Corporation (NERC).
General Project Information	Why is there not an alternative route proposed to the north of Chapleau?	Hydro One conducted an evaluation of all viable alternative routes for the Project during the routing study. While a northern alternative route option around Chapleau was initially considered, it was ultimately excluded due to environmental and constructability constraints, particularly the presence of the Chapleau Game Preserve.
General Project Information	If selected, could alternative route C2 be shifted south by 500 m to 1 km?	This feedback was considered as part of our evaluation of the alternative routes. Alternative routes were identified based on known local constraints, environmental, technical and socio-economic data, as well as preliminary feedback from Indigenous communities. Some examples of known constraints, data, and feedback that helped identify the alternative routes include linear infrastructure like roads, railways, and existing power lines, the Chapleau Game Preserve, mining and forestry operations, known archaeological and heritage sites, and preliminary feedback from Indigenous communities about cultural values. The preferred route for the Project was selected in May 2026 and consists of alternatives routes A2, B3, and C2.
General Project Information	Why can the existing transmission line not be upgraded?	An option to increase the capacity of existing infrastructure is not possible because the existing structures cannot accommodate the additional conductors due to power reliability issues and constraints, as well as not meeting the standards set by the NERC.

Theme	Question/Comment	Response
General Project Information	How will the Project address concerns associated with forest fire risk?	Safety is a top priority at Hydro One. We monitor fire danger and take proactive steps to reduce the risks to our electricity infrastructure. This can include dispatching crews when an issue is detected on a powerline, rather than attempting to remotely restore power. This could help prevent potential hazards, such as vegetation interference or equipment damage, that could pose a risk during restoration. In addition, Hydro One takes proactive measures to safeguard its operations and electricity infrastructure. These include, coordinating closely with the MNR, reviewing and adapting work practices to ensure employee safety and compliance with local emergency orders, and implementing protective measures such as installing sprinkler systems at key stations, wrapping critical poles in fire-retardant mesh, and managing vegetation to create fire breaks.
General Project Information	What is the need for the Project? Will it increase regional electricity capacity?	As part of plans to address future growth in northeastern Ontario, the IESO identified the need for added capacity in the northeast. Once built, the Project will reinforce the transmission system in northeastern Ontario and support the growing electricity demands of communities, industries, businesses, and residents. In addition to meeting growing electricity needs, this new transmission line will strengthen the connection between the northeast and the northwest and improve the overall resiliency of the northern Ontario transmission network. Once complete, the Project will significantly increase the current capacity of the electricity system within the region.
General Project Information	Will the Weston Lake DS be connected to the Project and/or upgraded to create connection space for new generation and loads in the region?	The Project will not connect to the Weston Lake DS.
General Project Information	How is the community going to benefit from this Project?	The Project will reinforce the transmission system in northeastern Ontario and support communities, businesses, industries, population growth, and economic development in the region.
Health Concerns	What guidelines govern exposure to EMFs?	Hydro One complies with all regulatory requirements and industry standards regarding EMFs. Health Canada and the World Health Organization have concluded that scientific research does not demonstrate any adverse health effects from exposure to EMFs from transmission lines. Refer to **Appendix D** for more information about EMFs.
Health Concerns	How will noise disturbances be mitigated for the Project?	The level of static noise emitted by transmission lines relates to several different factors, such as weather conditions and how heavily the transmission line is loaded. For example, during regular weather, transmissions lines are typically almost silent, but during more severe weather like thunderstorms, the noise levels can be raised. There is the potential for increased noise and vibration during construction and maintenance activities; however, they are anticipated to be short-term. The duration of construction and maintenance activities at any one location along the transmission line corridor would be limited and intermittent, thereby reducing the duration of noise and vibration at any given area. **Table 7-1** further discusses mitigation measures for the Project's potential noise effects.

Theme	Question/Comment	Response
Natural Environment Existing Conditions and Potential Impacts	Will the Project impact fur-bearing animal habitats for species like american marten and fisher?	Hydro One has completed ecological field surveys, including wildlife mapping, to identify potential effects. The field program did not include species-specific surveys for American marten or fisher; therefore, the absence of mapped habitat should not be interpreted as confirmation that these species or their habitat are not present within the PSA. SWH for other fur bearing species, such as moose and bats, were identified within the PSA. Mitigation measures have been developed as part of the Class EA to reduce potential impacts. The specific potential impacts to wildlife and wildlife habitat are outlined in **Table 7-1**.
Natural Environment Existing Conditions and Potential Impacts	Will the Project impact Moose late-wintering areas?	Ecological field surveys confirmed the presence of Moose late-wintering areas as a SWH within the PSA. Potential impacts to moose habitat were evaluated through ecological field surveys, and the data informed the comparative evaluation. This approach helped select a preferred route that minimizes overall fragmentation and disturbance to these late-wintering grounds. Species-specific mitigation measures have been developed and are detailed in **Table 7-1**.
Natural Environment Existing Conditions and Potential Impacts	Will increased access lead to overfishing in remote trout lakes?	Hydro One understands that new access roads can lead to increased community use. As part of the Class EA, measures to minimize environmental effects, including potential impacts from new permanent access roads, have been developed for the preferred route. These are outlined in **Table 7-1**.
Natural Environment Existing Conditions and Potential Impacts	How will the Project protect local flora and fauna?	Hydro One is continuing to work closely with government agencies to follow all the applicable legislation, and acquire any permits, approvals, or authorizations prior to beginning any work that would adversely affect natural habitats. Through the Class EA process, avoidance and mitigation measures have been identified to address potential effects to the natural environment, as applicable. Vegetated areas will be restored with compatible vegetation (i.e., species that at maturity will not pose a threat to the operation of overhead transmission lines) following completion of construction. For wooded areas, this may result in a transition of the vegetation community from a woodlot to a shrub thicket or meadow. Additionally, Hydro One will implement a Biodiversity Initiative to fund opportunities to create or enhance habitat benefits to the region. More information on the Biodiversity Initiative will be available following the completion of the Class EA. The specific methods used to mitigate potential impacts to flora and fauna are outlined in **Table 7-1**.
Natural Environment Existing Conditions and Potential Impacts	Will this Project impact local fish populations, specifically lake sturgeon?	Ecological field surveys have been undertaken as part of the Class EA, to confirm SWH within the PSA. Based on the outcome of these surveys, avoidance and mitigation measures have been developed to minimize potential impacts to fish and fish habitat, both during the construction and operation of the new transmission line. Lake sturgeon habitat was confirmed as special concern and rare wildlife within the PSA. The potential impacts to fish populations are further discussed in **Table 7-1**.

Theme	Question/Comment	Response
Natural Environment Existing Conditions and Potential Impacts	What steps are taken to protect wildlife if a tree containing an active nest or species habitat must be cut down for the Project?	If a tree containing an active nest or species habitat is identified, Hydro One will take appropriate steps to avoid or minimize impacts to wildlife. This may include completing pre-clearing surveys, establishing protective buffers, avoiding clearing during sensitive timing windows, and delaying work until the nest is no longer active, where required. Where species habitat or SAR may be affected, Hydro One will work with qualified environmental specialists and follow applicable regulatory requirements, permits, and mitigation measures. If sensitive wildlife features are discovered during construction, work in the area may be paused until the feature is assessed and appropriate protection measures are confirmed.
Natural Environment Existing Conditions and Potential Impacts	To what extent will the presence of identified SAR and their habitats influence or dictate the final selection of the preferred route for the Project?	The presence of SAR was a key consideration in selecting the preferred route and was determined through environmental surveys conducted as part of the Class EA process. Through the comparative evaluation, Hydro One analyzed each alternative route by collecting data from multiple sources, including existing regional reports and plans, environmental field surveys, and technical assessments. Public and stakeholder engagement sessions were also hosted to gather localized input and feedback. For more information on the specific mitigation measures proposed for SAR and their associated habitats, please refer to **Section 7.5.8.5** and **Table 7-1**.
Preferred Route	Does Hydro One already have a preferred route in mind, and when will the final decision on the route be made and shared with the public?	Over the course of the Class EA, Hydro One has focused on studying and learning more about each of the alternative routes by collecting data from a variety of sources, such as existing reports and plans, conducting environmental field surveys and technical assessments, and hosting engagement sessions to gather input and feedback. Through the Class EA process, Hydro One has evaluated and compared each of the alternative routes to select the preferred route that best balances the criteria we must consider, within the following categories: • Indigenous Culture, Values, and Land Use; • Natural Environment; • Socio-Economic Environment; and • Technical and Cost Considerations. The preferred route for the Project was selected in May 2026 and consists of alternative routes A2, B3, and C2.
Property (including property rights and property acquisition)	How will Hydro One work with directly impacted landowners?	Hydro One is committed to working closely with directly impacted landowners. Now that a preferred route is selected, the Hydro One Real Estate team will continue to work with directly impacted landowners by scheduling one-on-one meetings. At these meetings, the Project-specific Land Acquisition Compensation Principles that guide land right acquisitions will be reviewed. We want to assure landowners these acquisition principles will be applied in a fair, transparent, and consistent manner and are focused on ensuring there is landowner choice, as well as compensation incentives to secure voluntary property right settlements.

Theme	Question/Comment	Response
Routing	Why do alternative routes C1 and C2 take an indirect path to the TS instead of a straight line?	A variety of factors inform the routing study for the Project. Constraints across four categories: Indigenous Culture, Values, and Land Use, Natural Environment, Socio-Economic Environment, and Technical and Cost Considerations, play an important role in identifying viable alternative routes for evaluation. For alternative routes C1 and C2, a direct, linear route to Porcupine TS was not feasible due to several constraints. A straight-line route would have conflicted with active mining exploration areas, existing residential properties, large water bodies, and culturally sensitive community Values formally identified by Partner First Nations. To minimize potential environmental, socio-economic, and cultural impacts, the alternative routes were designed to safely navigate around these features.
Routing	Will the Project parallel any existing transmission corridors or roads?	Approximately 50% of the preferred route parallels existing linear infrastructure, including transmission corridors and roads, where feasible. The use of existing linear corridors was considered amongst the Indigenous Culture, Values, and Land Use, Natural Environment, Socio-Economic Environment, and Technical and Cost Considerations criteria. The preferred route was selected to balance these considerations while reducing effects on landowners, limiting interactions with mining and forestry operations, and minimizing crossings of highways, railways, power lines, waterbodies, and wetlands.
Routing	Why were changes made to the alternative routes?	Route refinements are part of the Class EA process. When Hydro One first identifies alternative routes, it uses the best information available at the time, including early feedback from Indigenous communities, environmental data, and known local constraints. As additional information is gathered throughout the Project, including through technical studies, field investigations, and ongoing engagement, refinements may be required to address newly identified constraints. Through this process, Hydro One identified specific technical constraints that required refinements to the alternative routes. Additional information regarding these refinements is provided in **Section 5.2.1**.
Routing	Why was the Foleyet Timber Road corridor ruled out as an alternative route for the Project?	Alternative routes were identified and evaluated using data related to the following four categories: • Indigenous Culture, Values, and Land Use; • Natural Environment; • Socio-Economic Environment; and • Technical and Cost Considerations. Known local constraints were also considered during the selection and evaluation of alternative routes for the Project. Corridor-specific feedback received from the community, including suggestions related to the Foleyet Timber Road, was considered as part of the Project. However, this option did not rank favourably across the established evaluation categories when compared to the route options advanced for comparative evaluation and, therefore, was not carried forward.

Theme	Question/Comment	Response
Routing	Why is the Project creating new corridors through forested areas instead of following the existing Highway 101 corridor?	Hydro One prioritizes opportunities to parallel existing linear infrastructure wherever feasible. The selected preferred route parallels the Highway 101 corridor along segments A2 and C2. Final corridor selection requires a careful balance of multiple factors, including: • Indigenous Culture, Values, and Land Use; • Natural Environment; • Socio-Economic Environment; and • Technical and Cost Considerations. Known local constraints were also factored into the comparative evaluation. Community feedback, including suggestions to continuously parallel Highway 101, was thoroughly reviewed during the routing process. However, maintaining a continuous highway alignment through Segment B did not rank favourably across the established evaluation criteria. As a result, alternative route B3 was carried forward.
Socio-Economic Environment Existing Conditions and Potential Impacts	How will the Project affect licenced traplines and trapping activities?	Hydro One will work with trappers who may be directly impacted by construction activities for the Project. The PSA overlaps with 32 registered traplines. Construction activities have the potential to disrupt wildlife habitats and alter migration routes, which could impact active traplines. Hydro One will: • Provide ongoing communication and opportunities for feedback as part of Project planning with the aim of reducing potential impacts; • Provide mapping specific to trapline areas; • Offer fair compensation to eligible trappers whose licensed areas are impacted by the construction of the Project; and • Minimize impacts to wildlife and wildlife habitat, where possible. See **Section 4.4.2** for more information on trapping activities.
Socio-Economic Environment Existing Conditions and Potential Impacts	Will tapping into the transmission line be permitted for the Project?	The Project is a high-voltage bulk transmission line intended to transport large amounts of electricity across the entire provincial transmission system. Tapping into the transmission line will not be permitted. Connections with homes, businesses, communities, and other users are typically supplied through the local distribution system. Before electricity can be distributed to customers, it must first pass through a station where the voltage is transformed from the transmission line to levels suitable for local distribution. Potential future electricity service expansions occur through the local distribution network or through new infrastructure that is specifically planned, studied, and approved for that purpose, rather than through direct connections to the transmission line itself.

Theme	Question/Comment	Response
Socio-Economic Environment Existing Conditions and Potential Impacts	How will impacts to recreational trails be mitigated?	During construction and maintenance, there is potential for localized disturbance to tourism and the enjoyment of recreational resources; however, these impacts are anticipated to be short-term in nature. To limit disturbances resulting from the creation of new corridors, the Project will utilize existing road and trail infrastructure wherever practical. Where new access roads are required, they will be designed to integrate with the existing network and mitigate traffic pressure on local routes. Mitigation measures for potential effects on recreational trails are further outlined in **Table 7-1**.
Socio-Economic Environment Existing Conditions and Potential Impacts	What are the distance requirements between residential properties and transmission lines?	Hydro One typically requires 15 m of clearance on all sides of a transmission structure (tower or pole) to allow for heavy machinery access.
Socio-Economic Environment Existing Conditions and Potential Impacts	Will there be any temporary power outages or service interruptions while the new transmission line is being built?	While the Project aims to minimize disruptions to local residents and businesses, some temporary, planned power interruptions may be required to safely connect the new infrastructure to the existing electrical grid. If a planned outage becomes necessary, Hydro One will coordinate closely with local distribution companies to minimize both the duration and the impact. Hydro One is committed to ensuring that all directly impacted landowners, businesses, and stakeholders receive advance notification ahead of schedule so they can plan accordingly.
Socio-Economic Environment Existing Conditions and Potential Impacts	How will the Project impact existing and future land-uses?	There is potential for long-term land-use effects related to existing and future land-use designations and potential development. These effects may contribute to cumulative land-use impacts in the area, particularly when considered alongside ongoing forestry, aggregate, and mining operations. Across the province, development routinely occurs around existing transmission line corridors, and land uses deemed compatible with overhead transmission infrastructure are often permitted within transmission line ROWs. Hydro One will continue to engage with municipalities, industry partners, and other interested parties to identify and mitigate potential conflicts with current land uses and future development, where feasible. Recommended mitigation measures are outlined in **Table 7-1**.
Vegetation Management	Will there be any spraying of herbicides during construction and/or operation of the new transmission line?	Hydro One has committed to not using herbicides unless it is jointly determined with the Partner First Nations to be appropriate in specific and defined circumstances. If Partner First Nations maintain their current position throughout the life of the Project, that commitment stands. In the past, Hydro One's ROWs have been maintained by selectively treating plants with a low volume, direct application of federally and provincially approved herbicide. The Class EA considered the potential effects associated with the construction, operation, and maintenance of the transmission line. The comparative evaluation also considered potential environmental and land-use impacts associated with vegetation management practices, including the localized use and effects of herbicides. Recommended mitigation measures are outlined in **Table 7-1**.

Theme	Question/Comment	Response
Vegetation Management	Why is so much tree clearing required for the Project?	Vegetation clearing within the ROW is required to support the safe and reliable operation of the transmission line, as trees and tall woody vegetation are not compatible with high-voltage transmission infrastructure. Additional localized clearing may also be required to accommodate construction access roads and temporary workspaces. Hydro One is committed to reducing environmental effects by retaining low-growing compatible vegetation and sensitive plant species within the ROW wherever feasible. Following construction, disturbed areas will be restored using compatible species and seed mixes, where appropriate. To further address habitat loss or habitat transition, Hydro One will implement a dedicated Biodiversity Initiative following completion of the Class EA and OEB approval processes. Additional mitigation measures related to vegetation management are outlined in **Table 7-1**.

3.20. Notice of Completion and draft Environmental Study Report review period

Hydro One is providing a 30-day comment review period, from November 12, 2026, to December 12, 2026. Comments regarding the draft ESR are to be submitted to Hydro One no later than 4:30 P.M. on December 12, 2026, and must be addressed to:

Andrew Roberts, Manager Environmental Services,

Hydro One Networks Inc.

483 Bay Street, North Tower,

14th Floor, Toronto, ON M5G 2P5

Comments can also be submitted by calling Community Relations at **1-877-345-6799** or emailing Community.Relations@HydroOne.com

The draft ESR is available electronically on the Project website: HydroOne.com/WawaTimmins. Printed copies of the draft ESR are also available at the following locations during business hours:

Timmins Public Library	**Foleyet Nursing station**	**Chapleau Public Library**	**Wawa Public Library**
320 2nd Ave, Timmins, ON P4N 1B5 (705) 360-2623	125 Sherry Ave, Foleyet, ON P0M 1T0 (705) 899-2053	20 Pine Street West, Chapleau, ON P0M 1K0 (705) 864-0852	40 Broadway Ave, Wawa, ON P0S 1K0 (705) 856-2244 ext. 290

4.0 Environmental inventory

The environmental inventory provides a baseline characterization of the existing natural, cultural, and socio-economic conditions within the LSA and the PSA (**Figure 2-1**). Information presented below was obtained from the following sources:

- Published documents;
- Government agency resource databases and mapping tools;
- Municipal websites;
- Government planning and guidance documents;
- Relevant project documents;
- Reports commissioned by Hydro One;
- Primary data collection through targeted environmental field surveys; and
- Input received through consultation with stakeholders and rights holders.

Where information was received from Indigenous communities regarding traditional land uses, that information has been incorporated as applicable while protecting confidential information.

This chapter establishes the existing environment that may be affected by the Project and provides the data necessary to evaluate potential Project-related effects and identify appropriate mitigation measures. In accordance with Section 3.3.4 of the Class EA for TF (Hydro One, 2024), information for the below factors was collected for the purpose of defining existing conditions:

- Agricultural resources;
- Forestry resources;
- Cultural heritage resources (i.e., BHRs, CHLs, and archeological resources);
- Land use and communities;
- Mineral resources;
- Natural environment resources (e.g., air, land, water, wildlife, etc.);
- Recreational resources; and
- Visual and aesthetic resources (i.e., appearance of the landscape).

The term “sensitive receptors” is used in this report to refer to features in the natural or socio-economic environment that are particularly sensitive to certain types of changes. For example, residential dwellings are sensitive to noise impacts, and watercourses are sensitive to the risk of spills.

Natural and socio-economic environment baseline conditions are described in the following sections. Desktop information for the natural and socio-economic environment was generally collected within the LSA. Ecological field surveys were completed within a broader area and extrapolated to the LSA/PSA. Ecological field surveys were undertaken between April 2025 and February 2026 to assess baseline environmental conditions and significant natural values to inform the Class EA.

Potential Project interactions with these features, and recommendations for avoidance, mitigation, and applicable regulatory considerations, are described in **Section 7.0**.

4.1. Agricultural resources

The Canada Land Inventory (CLI) classifies soil types across Canada and categorizes agricultural land capability into seven classes. Class 1 is the highest agricultural capability, and Class 7 is the lowest capability. Class 1 to Class 3 lands are considered Prime Agricultural Land. Class 0 are organic soils which are separate from the seven capability classes.

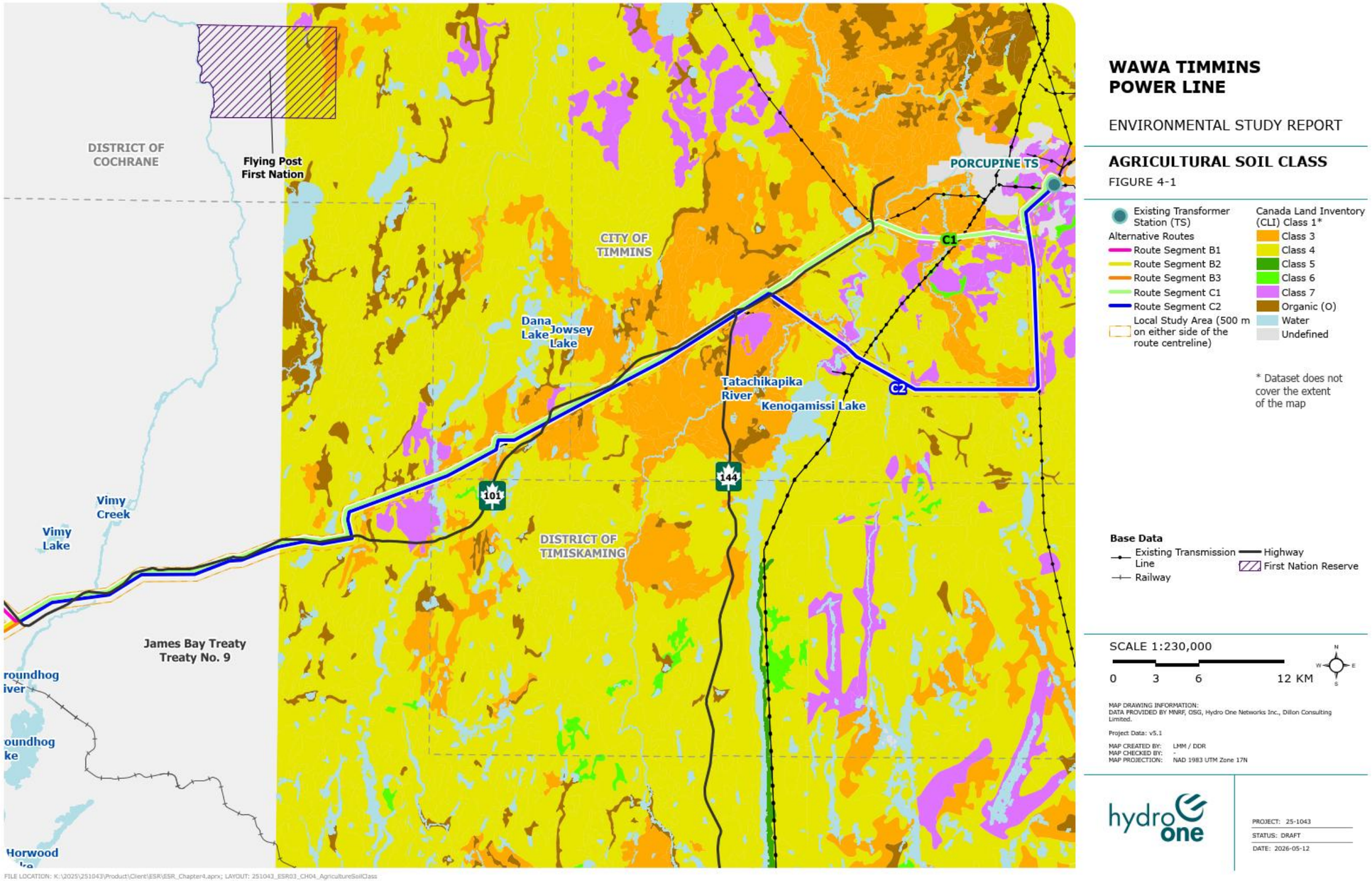
Class 1 to Class 3 and Class 4-7 land capability descriptions for agriculture are as follows (Government of Canada, 2013):

- Class 1: No significant limitations in use for crops;
- Class 2: Moderate limitations that restrict the range of crops or require moderate conservation practices;
- Class 3: Moderate to severe limitations that restrict the range of crops or require conservation practices; and
- Class 4-7: Severe limitations that restrict the range of crops and the capability to produce perennial forage crops. Class 7 soils have no capacity for arable culture or permanent pasture.

CLI mapping of agricultural soil classes is limited to eastern portions of Routes C1 and C2; soil classes are not mapped for the remainder of the Project area including the entirety of Segments A and B. The majority of Routes C1 and C2 pass through areas of Class 3 or Class 4-7 soils (**Figure 4-1**). Additionally, Routes C1 and C2 also extend through areas of excess water (Subclass W) and Organic soils (Subclass O), also known as Class 0.

The only agricultural areas identified within the LSA for the alternative routes is an area of Class 3 soils approximately 480 m north of Route C1 near Pine Street South in Timmins. The annual crop inventory identifies this area as “grasses and forages,” which is the predominant crop type inventoried in the Timmins area (Agriculture and Agri-Food Canada, 2024). Most of the land within the City of Timmins (99%) is identified as “non-agricultural data” in the annual crop inventory.

Figure 4-1: Agricultural soil classes



4.2. Forestry resources

Forestry is a significant economic driver and the dominant land use within the LSA. For example, in the District of Algoma, the Ontario government is providing a grant of up to $15 million to support the construction of a new oriented strand board plant that is expected to result in:

- Over 300 new direct and indirect jobs;
- Almost $260 million in gross domestic product; and
- Over $4.7 million in annual stumpage revenue (Ministry of Northern Development Mines, Natural Resources and Forestry [MNDMNF], 2022).

The Township of Chapleau has an active forest industry including:

- GreenFirst Forest Products, which operates a softwood lumber sawmill and biomass cogeneration plant employing 150 people in the community; and
- True North Timber, a Chapleau based forestry contracting business that employs approximately 85 direct and indirect workers (Township of Chapleau, n.d.).

Several forestry companies are located in the City of Timmins, including GreenFirst Forest Products, DeBastos & Sons Ltd., and Inferor (Timmins Chamber of Commerce, n.d.).

Ecoregions are a unique area of land and water nested within an ecozone that is defined by a characteristic range and pattern in climatic variables, including temperature, precipitation, and humidity. The climate within an ecoregion has a profound influence on the vegetation types, substrate formation, and other ecosystem processes, and associated biota that live there (Crins, Gray, Uhlig & Wester, 2009). Most of the Project is situated within Ecoregion 3E (Lake Abitibi), and a small portion of Routes A1 and A2 overlaps with Ecoregion 4E (Lake Temagami). Ecoregion 3E is characterized by 29.5 percent mixed forest, 28.1 percent coniferous forest, and 7.2 percent deciduous forest. Ecoregion 4E is characterized by 33.2 percent mixed forest, 19.9 percent coniferous forest, and 17.1 percent deciduous forest (Crins, Gray, Uhlig, & Wester, 2009). Ecological field surveys identified that upland tree communities,

specifically jack pine-black spruce and aspen-birch hardwood stands, dominate approximately 62 percent of the land cover within the LSA.

4.2.1. Forest management

Timber harvesting in Ontario occurs on both Crown and private land. Timber is harvested on private land at the discretion of landowners and (where applicable) municipalities that have tree removal bylaws.

Forestry on Crown land occurs according to the *Crown Forest Sustainability Act*, 1994 and is governed by the Forest Management Planning Manuals. These manuals provide a standardized, mandatory framework for the development of FMPs (MNR, 2024). FMPs apply to broad areas referred to as Forest Management Units (FMUs). Each FMP is prepared for a 10-year period to establish the location and timing of timber harvesting, renewal, and road development.

The Project intersects six FMUs: Algoma Forest, Missinaibi Forest, Pineland Forest, Romeo Malette Forest, Gordon Cosens Forest, and Abitibi River Forest (MNR, 2025). The FMU boundaries are shown on **Figure 4-2** and additional details about each FMU are provided below from west to east. To varying degrees, the alternative routes all extend through active forestry sites (as mapped within the respective FMPs) and cross forestry roads.

- The Algoma Forest is managed by Clergue Forest Management Inc. under SFL #542557. The total forested area of the Algoma Forest is 743,297 ha, with a total productive forest area of approximately 713,325 hectares (ha) (Arbex Forest Resource Consultants Ltd., 2021). Portions of Routes A1 and A2 extend through this forest.
- The Missinaibi Forest is managed by Missinaibi Forest Management Inc. under SFL #550390 and is an amalgamation of the former Martel and Magpie FMUs. The total forested area of the Missinaibi Forest is 1,473,039 ha, with a total productive forest area of approximately 1,401,267 ha (RYAM Forest Management, 2021). Portions of Routes A1, A2, B1, B2, and B3 extend through this forest. The board of directors for Missinaibi Forest Management Inc. includes representatives from:

- Four Partner First Nations (Brunswick House First Nation, Chapleau Cree First Nation, Missanabie Cree First Nation, and Michipicoten First Nation);
- Three municipalities (Township of Chapleau, Township of Dubreuilville, and the Municipality of Wawa); and
- Three forestry companies (GreenFirst Products Inc., Hornepayne Lumber Limited Partnership, and Columbia Forest Products Ltd.).

- The Pineland Forest is managed by Pineland Timber Company Ltd. under SFL #550816. The total forested area of the Pineland Forest is 391,325 ha, with a total productive forest area of approximately 331,221 ha (ArborVitae Environmental Services Ltd., 2021). Portions of Routes B1, B2, B3, C1, and C2 extend through this forest.
- The Romeo Malette Forest is managed by GreenFirst Forest Products Inc. under SFL #550398. The total forested area of the Romeo Malette Forest is 586,607 ha, with a total productive forest area of approximately 509,102 ha (Arbex Forest Resource Consultants Ltd., 2019). Portions of Routes B1, B2, B3, C1, and C2 extend through this forest.
- The Gordon Cosens Forest is managed by GreenFirst Forest Products Inc. under SFL #550039. The total forested area on Crown land[9] within the Gordon Cosens Forest is 1,805,923 ha (RYAM Forest Management, 2020). The Crown productive forest area is approximately 1,702,788 ha and there is an additional 12,854 ha of patent productive forest (RYAM Forest Management, 2020). Portions of Routes C1 and C2 extend through this forest.
- The Abitibi River Forest is managed by Abitibi River Forest Management Inc. under SFL #551832. The total productive forest area within the Abitibi River Forest is approximately 2,540,610 ha, with 2,110,075.5 ha eligible for forest management (KBM Resources Group, 2018). The total forested area is not provided in the FMP for the Abitibi River Forest. Portions of Routes C1 and C2 extend through this forest.

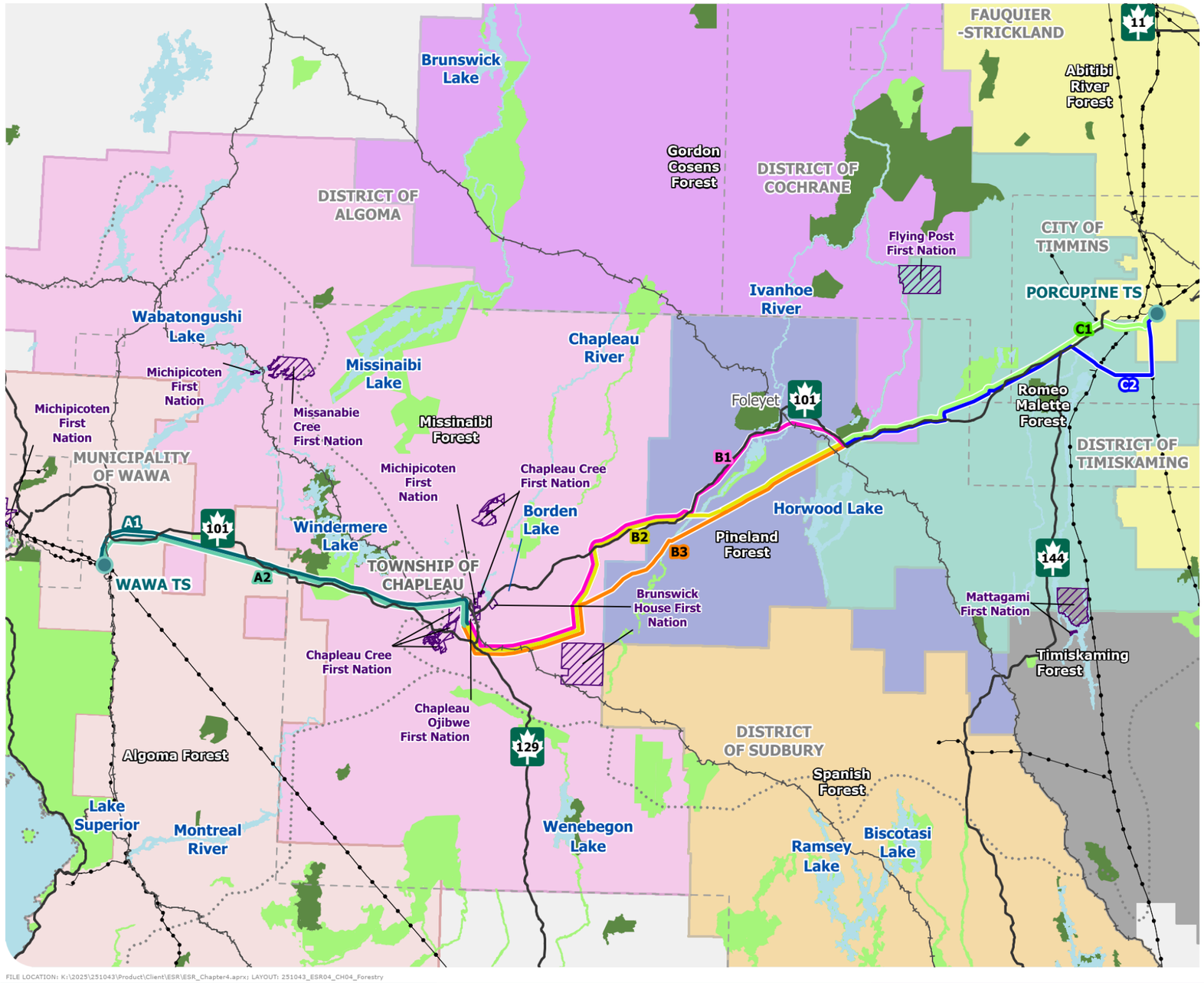
[9] In the FMP for the Gorden Cosens Forest, the total forested area on Crown land is specified. This differs from the other FMPs listed in this section, which provide the overall forested area including both Crown and “patent” (private) land.

4.2.1.1. Areas of Concern

FMPs designate AOCs to highlight locations where forestry activities are restricted due to sensitive features such as natural areas, cultural heritage, Indigenous Values, and resource-based activities. While AOCs are specific to forestry operations and therefore do not restrict the Project, they were used as a source of baseline information to support Project planning. The following types of AOCs relevant to the Project were identified within the PSA of the alternative routes:

- Natural environment:
  - Lakes with high/moderate potential sensitivity;
  - Rivers with high/moderate potential sensitivity;
  - Streams with high/moderate potential sensitivity; and
  - Ponds with high/moderate potential sensitivity.
- Tourism/recreation:
  - Canoe routes and portage trails;
  - Snowmobile trails; and
  - Tourism lakes.

Figure 4-2: Forest management units



WAWA TIMMINS POWER LINE

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FORESTRY

FIGURE 4-2

Existing Transformer Station (TS)

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Forestry Management Unit
- Abitibi River Forest
- Algoma Forest
- Gordon Cosens Forest
- Missinaibi Forest
- Pineland Forest
- Romeo Malette Forest
- Spanish Forest
- Timiskaming Forest

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body
- Conservation Reserve
- Provincial Park

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR /RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR04_CH04_Forestry

4.3. Cultural heritage resources

Cultural heritage resources are classified into three types by MCM (2010):

- Archaeological Resources: Includes artifacts, archaeological sites, marine archaeological sites, as defined under the *Ontario Heritage Act*;
- BHRs: A building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Aboriginal community; and
- CHLs: A defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community.

4.3.1. Archaeological resources

AECOM was retained by Hydro One to conduct a Stage 1 Archaeological Assessment (AA) for the Project. The need for AA work was determined through Hydro One's internal environmental review of the Project lands, as per the Class EA. Archaeological consulting activities were performed in accordance with the MCM Standards and Guidelines for Consultant Archaeologists (2011) by a licenced archaeologist. The study area for the Stage 1 AA comprised of lands within 337.5 m of the centreline of each alternative route (i.e., the ROW plus 300 m on either side).

The Stage 1 AA (AECOM, 2026a; PIF # P316-0568-2025) determined that the majority of lands within the study area have archaeological potential. A Stage 2 AA is required within the identified areas of archaeological potential along the Project ROW and access roads. Hydro One commits to completing the Stage 2 AA prior to any ground disturbing activities within areas of archaeological potential.

A copy of the report is included in **Appendix C-1**.[10]

[10] The Stage 1 AA report is subject to change in response to comments from Indigenous communities. This section will be updated accordingly, if required, for the final ESR.

4.3.2. Built heritage resources and cultural heritage landscapes

AECOM was retained by Hydro One to provide a CHEC for the Project. The CHEC report was completed following guidance outlined in the following documents:

- Hydro One's Cultural Heritage Identification and Evaluation Process (2019);
- MCM's Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist (2022); and
- The Standards and Guidelines for the Conservation for Provincial Heritage Properties (2010).

The objective of the CHEC was to identify known (i.e., listed and/or designated) and potential BHRs and CHLs located within the PSA. A total of nine potential BHRs and CHLs were identified within the PSA:

- Two potential BHRs:
  - Kamp Kinniwabi, which features one storey-log cabins and a frame structure dating from at least 1976; and
  - The Wakenagun Youth Healing Lodge, which holds significant associative value for Indigenous communities.
- Seven potential CHLs, including:
  - Three historic transcontinental rail corridors: The Algoma Central Railway (chartered 1899), the CPKC Railway (1881), and the CN Railway (1911); and
  - Four natural heritage landscapes with historical and fur trade associations: The Shoals Provincial Park; and the Ivanhoe, Groundhog, and Mattagami Rivers.

The CHEC report recommends that a Preliminary Impact Assessment (PIA) be conducted to identify potential direct and indirect impacts from the preferred route on the potential BHRs and CHLs identified in the CHEC. The preliminary results from the PIA are discussed in **Section 7.3.2**.

A copy of the draft CHEC report is included in **Appendix C-2**.[11]

4.4. Land use and communities

The LSA primarily consists of Crown land within the following unorganized districts:

- District of Algoma;
- District of Sudbury;
- District of Cochrane; and
- District of Timiskaming.

Portions of the LSA are also within the boundaries of the Township of Chapleau and the City of Timmins. Within these municipalities, the LSA is primarily in areas designated as Rural Area (Township of Chapleau) or Resource Development Area (City of Timmins), as shown in **Figure 4-4**.

The population changes from 2016 to 2021 for census divisions (districts) and census subdivisions (municipalities, reserves, and unorganized areas) within the general Project area are summarized in **Table 4-1** and **Table 4-2**, respectively. The populations for these areas extend well beyond the LSA and are provided for general context. Apart from the District of Sudbury, the census divisions have seen a modest decrease in population between 2016 and 2021 as shown in **Table 4-1**.

Across the census subdivisions (**Table 4-2**), most municipalities and unorganized areas experienced modest population declines, though modest growth is observed in Algoma, Unorganized, North Part and Sudbury, Unorganized, North Part.

[11] The CHEC and PIA reports are subject to change in response to comments from Indigenous communities. This section will be updated accordingly, if required, for the final ESR.

Table 4-1: Census divisions – population changes

Census division	2016 population	2021 population	Population change
District of Algoma	114,094	113,777	-0.3 percent
District of Sudbury	21,546	22,368	3.8 percent
District of Cochrane	79,682	77,963	-2.2 percent
District of Timiskaming	32,251	31,424	-2.6 percent

Source: Statistics Canada, 2016; Statistics Canada, 2021.

Table 4-2: Census subdivisions – population change

Census subdivision	2016 population	2021 population	Population change
Algoma, Unorganized, North Part	5,739	6,050	5.4 percent
Wawa, Municipality	2,905	2,705	-6.9 percent
Gros Cap #49, Indian Reserve (IR)	77	63	-18.2 percent
Sudbury, Unorganized, North Part	2,697	2,902	7.6 percent
Chapleau, Township	1,964	1,942	-1.1 percent
Chapleau Cree Fox Lake, IR	47	62	31.9 percent
Chapleau #74A, IR	21	17	-19.0 percent
Chapleau #75, IR	N/A	N/A	N/A
Duck Lake #76B, IR	85	154	81.2 percent
Cochrane, Unorganized, North Part	2,865	2,546	-11.1 percent
Timmins, City	41,788	41,145	-1.5 percent
Timiskaming, Unorganized, West Part	3,257	3,210	-1.4 percent

Source: Statistics Canada, 2016; Statistics Canada, 2021.

The following school board districts are located within the municipalities/districts noted above:

- Algoma District School Board;
- Conseil Scolaire Public de Grand Nord de l'Ontario;

- Conseil Scolaire Public de Grand Nord-Est de l'Ontario;
- Conseil Scolaire Catholique de District des Grandes Rivières;
- Conseil Scolaire Catholique Nouvelon;
- District School Board Ontario North East;
- Huron Superior Catholic District School Board; and
- Northeastern Catholic District School Board.

No schools have been identified within the LSA for any of the alternative routes.

4.4.1. Land use planning

The OPs for the Township of Chapleau and the City of Timmins apply to portions of the LSA. The areas beyond the boundaries of these municipalities are not subject to OPs as they are within the unorganized districts listed in **Section 4.4**. Land use planning and development in the LSA is also guided by the Provincial Planning Statement, 2024 (PPS). The OP land use designations within and beyond the LSA are shown in **Figure 4-4**.

4.4.1.1. Provincial Planning Statement, 2024

The PPS is issued under the authority of Section 3 of the Ontario *Planning Act* and came into effect on October 20, 2024. Section 3 of the *Planning Act* requires that decisions affecting planning matters "shall be consistent with" the PPS. The PPS provides overall policy directions on matters of provincial interest related to land use planning and development in Ontario. The PPS applies province-wide, except where the PPS or another provincial plan provides otherwise.

Section 3.3 (Transportation and Infrastructure Corridors) and Section 3.8 (Energy Supply) of the PPS includes protection and consideration for transmission lines and facilities. Section 6.1 (General Policies for Implementation and Interpretation) and Section 6.2 (Coordination) of the PPS include implementation policies related to Aboriginal and treaty rights and early engagement with Indigenous communities. The following policies from these sections are relevant to the Project:

- Section 3.3.1: Planning authorities shall plan for and protect corridors and ROWs for infrastructure, including transmission systems, to meet current and projected needs;

- Section 3.3.4: The preservation and reuse of abandoned corridors for purposes that maintain the corridor's integrity and continuous linear characteristics should be encouraged, wherever feasible;
- Section 3.3.5: The co-location of linear infrastructure should be promoted, where appropriate;
- Section 3.8.1: Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, energy storage systems, district energy, renewable energy systems, and alternative energy systems, to accommodate current and projected needs;
- Section 6.1.2: The Provincial Planning Statement shall be implemented in a manner that is consistent with the recognition and affirmation of existing Aboriginal and treaty rights in section 35 of the *Constitution Act*, 1982; and
- Section 6.2.2: Planning authorities shall undertake early engagement with Indigenous communities and coordinate on land use planning matters to facilitate knowledge-sharing, support consideration of Indigenous interests in land use decision-making and support the identification of potential impacts of decisions on the exercise of Aboriginal or treaty rights.

Additionally, the PPS includes guidance for the protection of mineral aggregate resources for long-term use. Section 4.5.2.4 states that "mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact."

4.4.1.2. Growth Plan for Northern Ontario (2011)

The Growth Plan for Northern Ontario (Growth Plan) was approved under the *Places to Grow Act*, 2005 in March 2011 and applies to the Northern Ontario Growth Plan Area defined by Ontario Regulation (O. Reg.) 416/05. The Growth Plan is a 25-year plan that provides guidance for provincial decision-making and investment to support economic and population growth in northern Ontario.

Section 5.0 (Infrastructure) of the Growth Plan includes support for investment in energy generation and transmission infrastructure in northern Ontario. The following clauses from this section of the Growth Plan are relevant to the Project:

- Section 5.2.1: Infrastructure planning, land-use planning, and infrastructure investments will be coordinated to implement this Plan. Infrastructure includes energy infrastructure;
- Section 5.2.2: In northern Ontario, the Province will give priority to infrastructure investments that support the policies in this Plan;
- Section 5.2.4: Infrastructure planning and investments will contribute to a culture of conservation by, wherever feasible, utilizing approaches and technologies that reduce energy and water use, increase efficiencies, and promote intensification and brownfield site redevelopment; and
- Section 5.6.1: The Province, working with the Ontario Power Authority and licenced transmission and distribution companies, will identify investment opportunities in northern Ontario's transmission and distribution systems to maintain reliability, meet new and growing demands, and accommodate renewable energy generation.

4.4.1.3. Crown land use

The Crown Land Use Policy Atlas (CLUPA) is the Government of Ontario's online mapping tool showing area-specific land use policy for Crown lands in central and northern Ontario (MNR, 2026a). The Crown land use policy areas in the general Project area are shown in **Figure 4-3**. The following Crown land use designations are found within the PSA of the alternative routes:

- General Use Area (all alternative routes);
- Enhanced Management Area (EMA) (Routes A1 and A2);
- Provincial park (all alternative routes); and
- Conservation reserve (Routes C1 and C2)

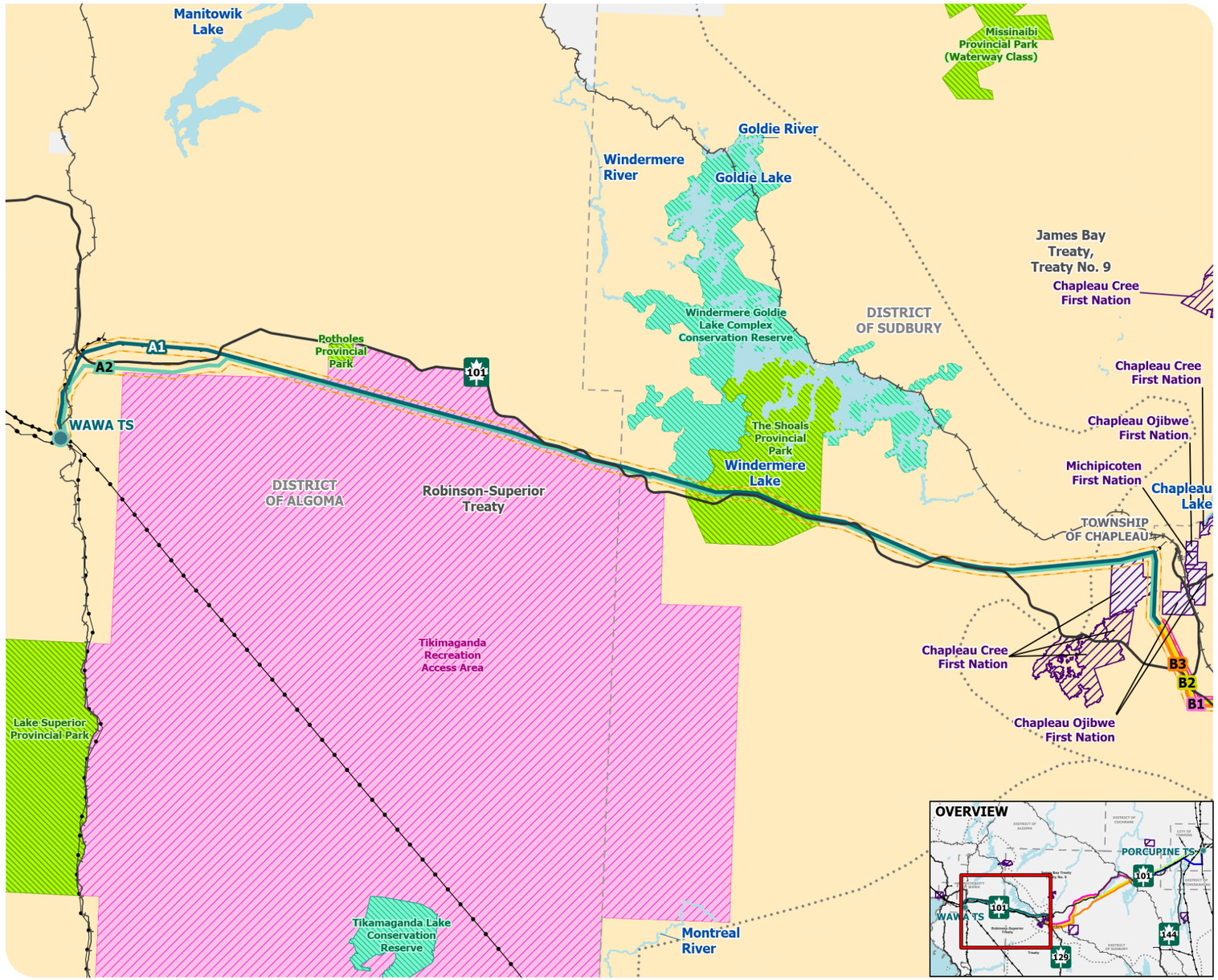
The majority of the PSA is located within lands designated as General Use Area. This is the default Crown land use designation when no specific designations have been applied. For the General Use Areas within the general Project area, the primary

activities are forestry, mining and mineral exploration, trapping, recreation, and tourism uses. The mapped General Use Areas also include private lands, which are not Crown lands.

EMAs, conservation reserves, and provincial parks are protected for natural and recreational purposes. Additional information on these features as they relate to the alternative routes can be found in **Section 4.6.6.6**, **Section 4.6.6.7**, and **Section 4.6.6.8**, respectively.

Crown land use designations of Forest Reserves, recommended provincial parks, recommended conservation reserves, and provincial wildlife areas are shown on **Figure 4-3** but are not within the PSA.

Figure 4-3A: Crown land use policy areas – Segment A



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CROWN LAND USE POLICY AREA: SEGMENT A

FIGURE 4-3A

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Local Study Area (500 m on either side of the route centreline)

Crown Land Use Policy Area
- Conservation Reserve
- Enhanced Management Area
- General Use Area
- Provincial Park

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body

SCALE 1:282,000

0 3.25 6.5 13 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

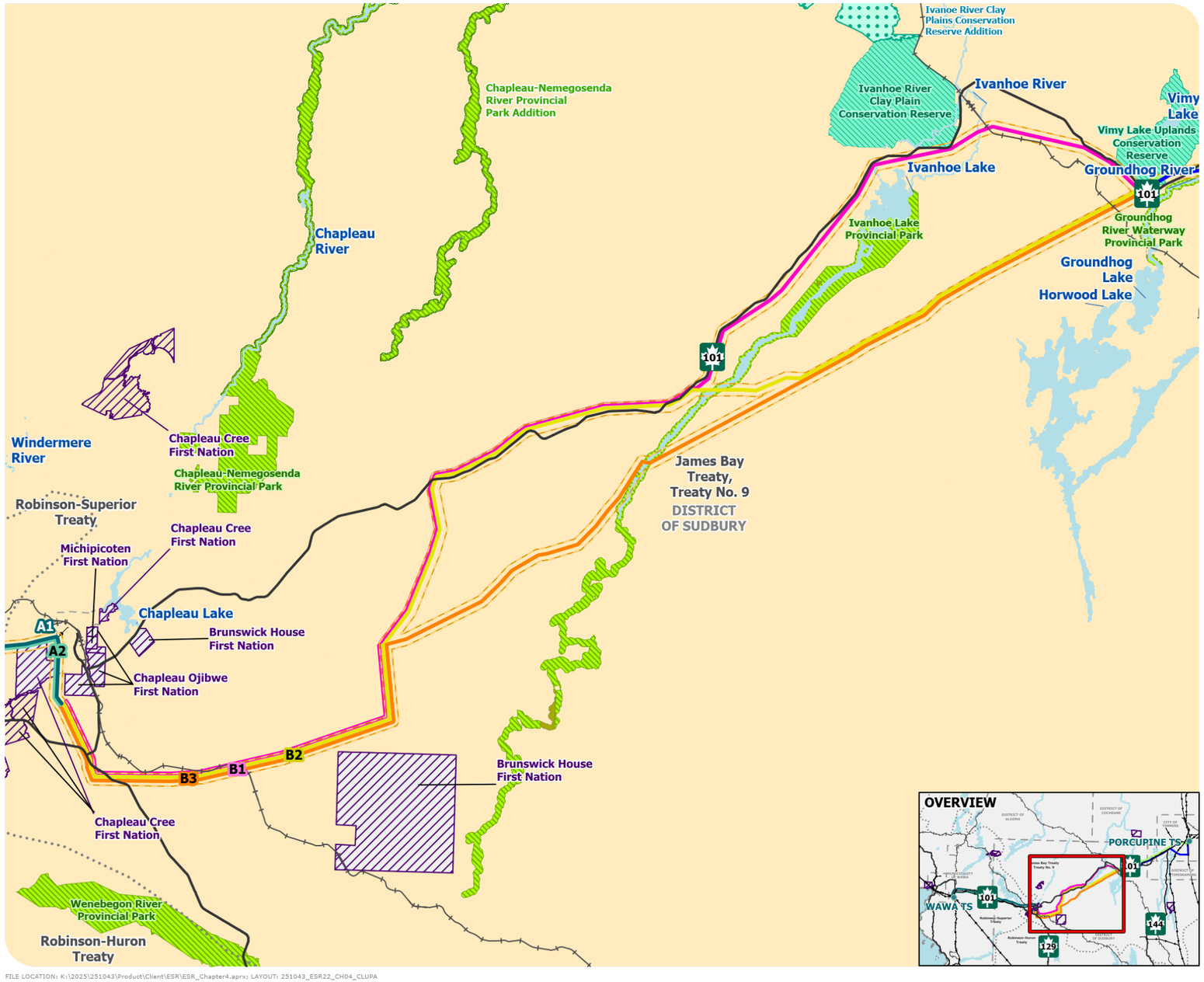
Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR22_CH04_CLUPA

Figure 4-3B: Crown land use policy areas – Segment B



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CROWN LAND USE POLICY AREA: SEGMENT B

FIGURE 4-3B

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2
- Local Study Area (500 m on either side of the route centreline)

Crown Land Use Policy Area
- Conservation Reserve
- Forest Reserve
- General Use Area
- Provincial Park
- Recommended Conservation Reserve
- Recommended Provincial Park

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body

SCALE 1:299,000

0 3.5 7 14 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

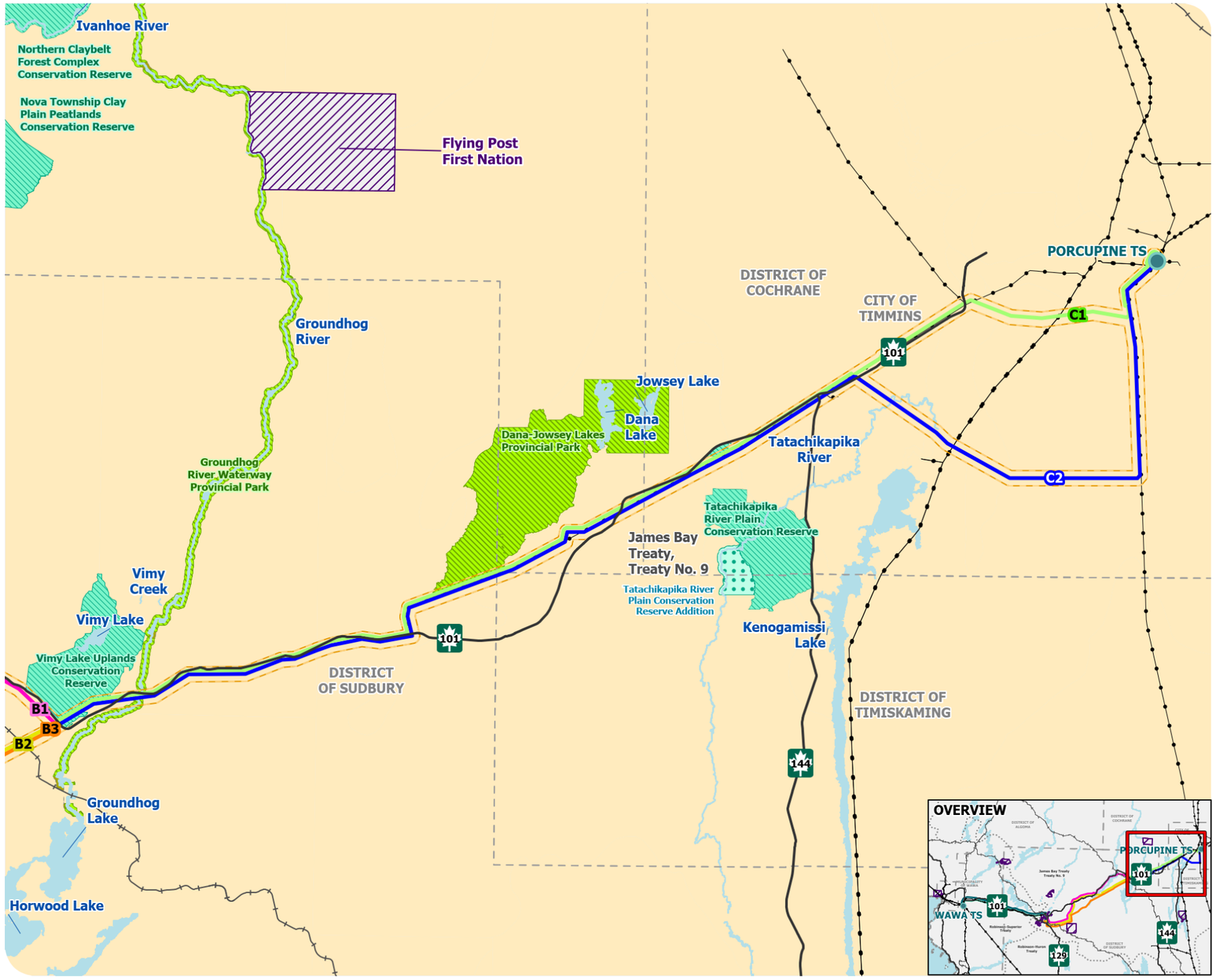
Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR22_CH04_CLUPA

Figure 4-3C: Crown land use policy areas – Segment C



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CROWN LAND USE POLICY AREA: SEGMENT C

FIGURE 4-3C

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2
- Local Study Area (500 m on either side of the route centreline)

Crown Land Use Policy Area
- Conservation Reserve
- Forest Reserve
- General Use Area
- Provincial Park
- Recommended Conservation Reserve

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Water Body

SCALE 1:244,000

0 2.75 5.5 11 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR22_CH04_CLUPA

4.4.1.4. Township of Chapleau Official Plan (2013)

The Township of Chapleau OP (2013) provides direction for land use planning within the Township to a planning horizon of 2031. Land use designations within the LSA are primarily Rural Area, apart from two Open Space Areas (**Figure 4-4**). The Rural Area designation provides for a broad range of uses including agriculture, forestry, other resource-based uses, tourism/recreational uses, provincial facilities, existing pits and quarries, limited residential uses, and accessory uses (Section 4.6.1). Open Space Areas are intended to be limited to recreational facilities, open spaces, conservation and enhancement of land/environment, and accessory uses.

Section 5.4 (Utilities & Communications) provides direction for utility and communications infrastructure in the Township, including the following relevant policies:

- 4 The Township shall work to ensure that transmission corridors are constructed, maintained, and operated to minimize their impact on the community;
- 7: Public and private utilities shall be permitted in all land use designations and shall be installed, where possible, within public road allowances or within appropriate easements; and
- 10: The Township shall ensure that all large, above-ground utility infrastructure is located and designed to be compatible with its surroundings and consistent with the urban design policies of this Plan.

Section 3.6.8 (Mineral Aggregate Resources) notes that there are limited significant mineral aggregate resources in the Township of Chapleau. Should any be discovered, the OP directs that the resources that are available should be protected from the encroachment of incompatible land uses.

4.4.1.5. City of Timmins Official Plan (2010)

The City of Timmins OP (2010) provides direction for land use planning within the City of Timmins to a planning horizon of 2028. Lands within the LSA are predominantly designated as Resource Development Area in Schedule A of the OP, apart from portions that are designated as Employment Area and Neighbourhood Area (**Figure 4-4**). The OP provides for the following land uses within these designations:

- Resource Development Area (Section 3.4): Mining, forestry, mineral aggregate operations, peat extraction, agricultural operations, resource-related uses, tourism and recreational uses, storage facilities, transportation facilities, infrastructure corridors, waste disposal and recycling facilities, and limited residential development;
- Employment Area (Section 3.2): Predominantly commercial, industrial, and institutional uses. Residential uses in these areas are intended to be limited to those that are compatible with non-residential uses; and
- Neighbourhood Area (Section 3.1): All types of residential development and limited commercial, institutional, and public service uses.

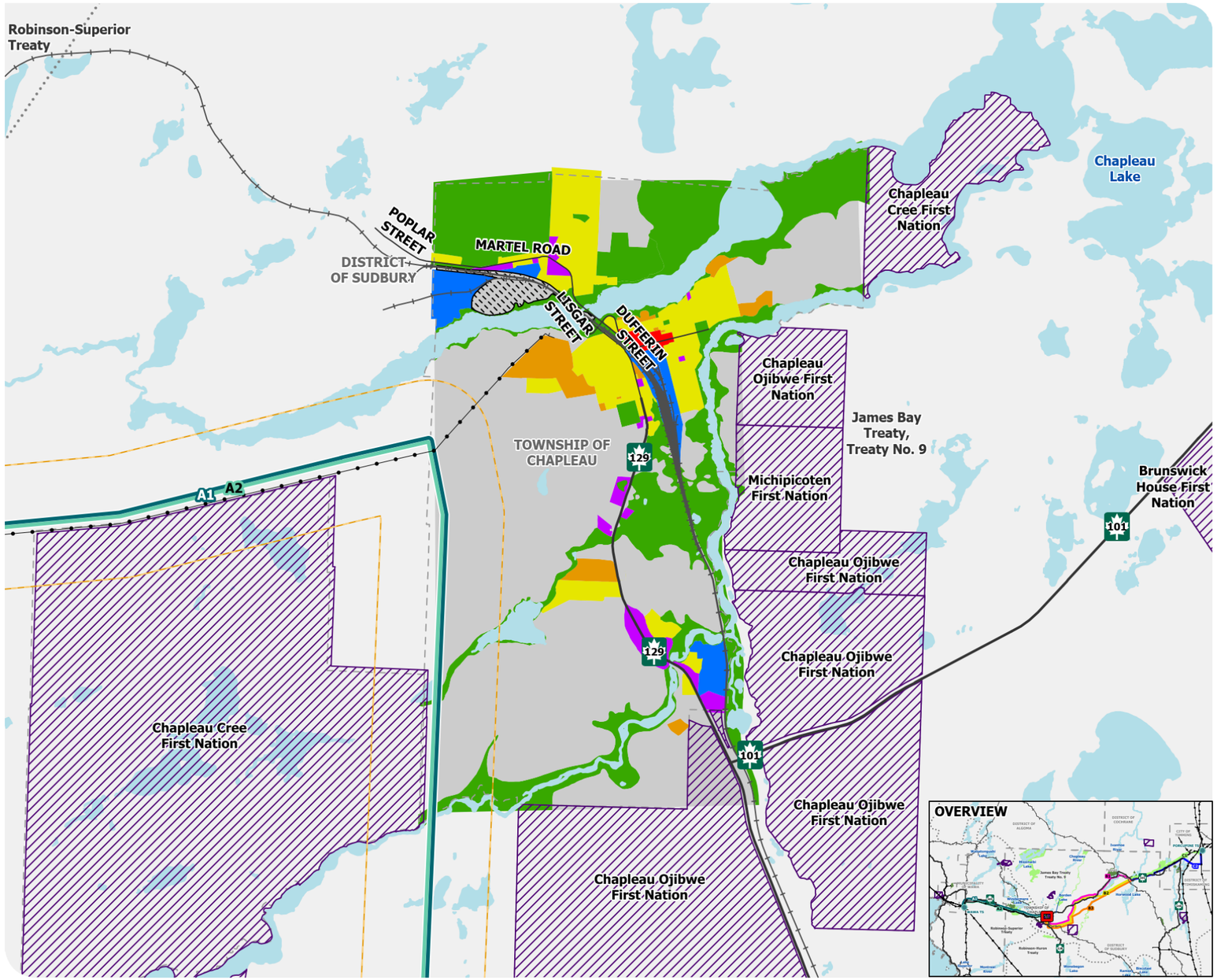
Lands within the LSA are also located within Mineral Development Zones and Mineral Extraction Zones in Schedule B of the OP. These areas are intended to be protected from activities that would:

- Preclude or hinder mineral mining operations, their expansion, or continued use; or
- Be incompatible for reasons of public health, public safety, or environmental impact (Section 2.9.2).

Electric power transmission falls under the definition of infrastructure in the City of Timmins OP. Relevant policies providing direction for infrastructure are described below:

- Section 2.1.11 (Embracing Community Development): The long-term economic health and prosperity of the community will be sustained by ensuring that adequate infrastructure and public service facilities will be available to accommodate projected growth; and
- Section 2.6.9 (Utility Facilities): Public utility facilities operated by Hydro One that are subject to the requirements of the EA Act may be permitted in all land use designations.

Figure 4-4A: Land use designations – Township of Chapleau



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

LAND USE DESIGNATIONS
OFFICAL PLAN: TOWNSHIP OF CHAPLEAU
FIGURE 4-4A

Alternative Routes
- Route Segment A1
- Route Segment A2
- Local Study Area (500 m on either side of the route centreline)

Official Plan Land Use
- Precinct Area
- Neighbourhood Area
- Town Centre Area
- Corridor Commercial Area
- Community Facility Area
- Employment Area
- Open Space Area
- Rural Area

Base Data
- Existing Transmission Line
- Railway
- Highway
- Major Road
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body

SCALE 1:30,000

0 0.35 0.7 1.4 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

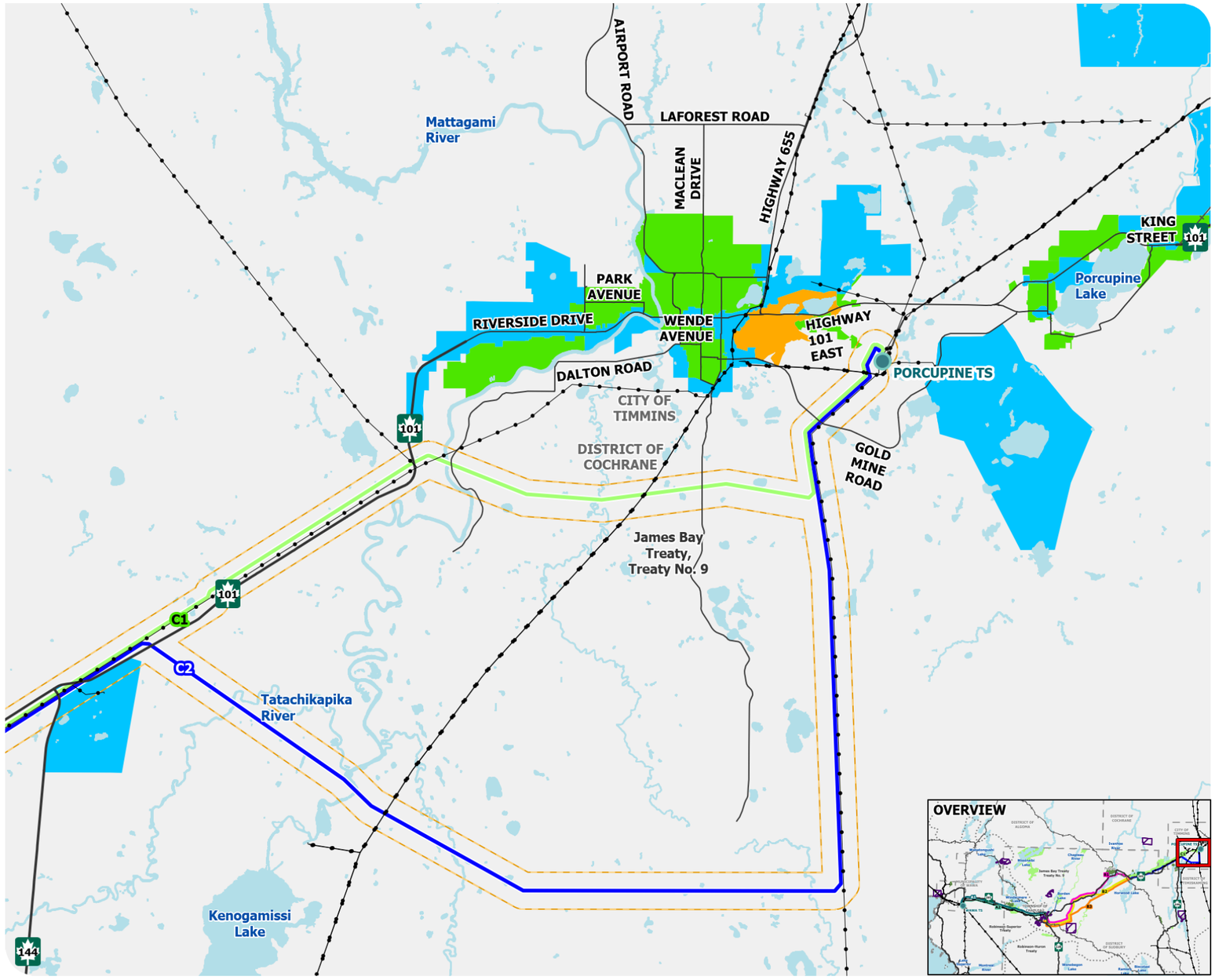
Project Data: v5.1

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PROJECT: 25-1043
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DATE: 2026-10-07

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR05_CH04_LandUseDesignations

Figure 4-4B: Land use designations – City of Timmins



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

LAND USE DESIGNATIONS
OFFICAL PLAN: CITY OF TIMMINS
FIGURE 4-4B

- Existing Transformer Station (TS)
- Alternative Routes
  - Route Segment C1
  - Route Segment C2
  - Local Study Area (500 m on either side of the route centreline)
- Official Land Use Plan
  - Neighborhood Area
  - Employment Area
  - Goldfields
  - Resource Development Area

Base Data
- Existing Transmission Line
- Railway
- Highway
- Major Road
- Water Body

SCALE 1:100,000

0 1 2 4 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-07

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR05_CH04_LandUseDesignations

4.4.1.6. Unorganized districts

Portions of the alternative routes intersect the following unorganized districts:

- Algoma, Unorganized, North Part;
- Sudbury, Unorganized, North Part; and
- Timiskaming, Unorganized, West Part.

These areas do not have the municipal organization or a designated Planning Board that would be required to create OPs or Zoning By-laws. Instead, the MMAH acts as the primary planning authority and makes decisions on land use planning directly based on the PPS and the Growth Plan.

Basic community services and infrastructure within unorganized districts are managed by Local Services Boards or Local Roads Boards, where established. These boards operate under provincial legislation but do not hold land use planning authority. The LSA for the alternative routes extends through areas administered by the following boards:

- Algoma District Services Administrative Board (Routes A1 and A2);
- Manitoulin-Sudbury District Services Board (Routes B1, B2, B3, C1, and C2); and
- Cochrane District Services Board (Routes C1 and C2).

4.4.2. Commercial and industrial operations

There are limited commercial operations within the LSA, as most of the area is unincorporated Crown land or designated as either rural or resource development areas. However, the alternative routes pass near the Township of Chapleau and the City of Timmins, where commercial and industrial activities are concentrated. Within the rural areas, commercial/industrial activities predominantly centre on resource extraction including forestry, mining, trapping, hunting, and fishing. Forestry and mining are discussed in **Section 4.2** and **Section 4.5**, respectively.

Fur trapping has a long-standing history in the region, with Fur and Trapper Councils established in both the City Timmins and the Municipality of Wawa (Ontario Fur Managers Federation, 2025). The Timmins Fur Council has 120 members and engages in advocacy work for local trappers in the Timmins area (Chorostil, 2024). The Township

of Chapleau has an economy historically rooted in fur trading and trapping, with its economy currently based largely on the forestry and transportation sectors (Township of Chapleau, 2025a; 2025b).

Most of the LSA for all alternative routes intersects with “trapline areas,” where licences can be obtained for trapping furbearing mammals for commercial use (MNR, 2022). The alternative routes each extend through several trapline areas, most of which are active, as outlined in **Table 4-3**. The total number of trapline areas, as well as the identification number for each trapline area that intersects the PSA and LSA, is included in **Table 4-3**.

The approximate locations of trapper cabins are depicted on the mapping included in FMPs. Based on a review of the mapping in the FMPs within the general Project area (listed in **Section 4.2.1**), no trapper cabins were identified within the PSA for the alternative routes. It is noted the precise location of trapper cabins is difficult to determine based on desktop resources and the broad scale of the mapping in the FMPs.

Resource-based tourism/recreation activities, including hunting and fishing, are also important components of the regional economy. The general Project area supports a robust tourism/recreation industry, including eight lodges and camps, six outdoor clubs, and two air tourism operations. Many hunting and fishing lodges offer guided expeditions, including packages for black bear, moose, and grouse hunting (Ontario Lodges, 2024; Bot, 2025). Licences for black bear hunting services are obtained within Bear Management Areas (BMAs); the alternative routes intersect several of these areas as outlined in **Table 4-3**.

Manufacturing is also an integral part of the regional economy. The Canadian Manufacturers & Exporters (CME) has identified the Districts of Algoma and Sudbury as priority areas, with key sectors including mineral processing, primary metal, and pulp and paper (CME, 2025). Manufacturing accounted for 10.7 percent of the total employment in the District of Algoma and 9.9 percent of the total employment in the District of Sudbury in 2021 (CME, 2025). In the City of Timmins, the Government of Ontario has provided over $2.2 million in funding to five local companies for workshop construction, equipment purchases, and operational expansion (MNDMNRF, 2021).

Table 4-3: Trapline areas and bear management areas within the PSA and LSA

Alternative route	Trapline areas	Bear management areas
Route A1	Total of 13 trapline areas: • CP029 • CP036 (vacant) • CP037 • CP046 • CP047 • CP048 • CP049 • WA080 • WA081 • WA085 • WA086 (LSA only) • WA087 • WA088	Total of 12 BMAs: • CP-32-034 • CP-32-036 • CP-32-037 • CP-35-003 • CP-35-005 • CP-35-007 • WA-32-031 • WA-32-033 • WA-34-002 • WA-34-008 • WA-35-001 • WA-35-002
Route A2	Total of 13 trapline areas: • CP029 • CP036 (vacant) • CP037 • CP046 • CP047 • CP048 • CP049 • WA080 • WA081 • WA085 • WA086 • WA087 • WA088	Total of 12 BMAs: • CP-32-034 • CP-32-036 • CP-32-037 • CP-35-003 • CP-35-005 • CP-35-007 • WA-32-031 • WA-32-033 (LSA only) • WA-34-002 • WA-34-008 • WA-35-001 • WA-35-002

Alternative route	Trapline areas	Bear management areas
Route B1	Total of 11 trapline areas: • CP012 (LSA only) • CP018 • CP019 • CP022 • CP023 • CP030 • CP049 • CP050 • CP052 (vacant) • CP057 • CP058	Total of 12 BMAs: • CP-30-028 • CP-30-029 • CP-31-017 • CP-31-018 • CP-31-019 • CP-31-027 • CP-31-032 • CP-31-033 • CP-35-010 • CP-35-012 • CP-38-024 • TI-31-020 (LSA only)
Route B2	Total of 11 trapline areas: • CP022 • CP023 • CP027 • CP030 • CP031 • CP049 • CP050 • CP052 (vacant) • CP057 • CP058 • TI060	Total of 13 BMAs: • CP-30-029 • CP-31-017 • CP-31-018 • CP-31-019 • CP-31-022 • CP-31-027 • CP-31-030 • CP-31-032 • CP-31-033 • CP-35-010 • CP-35-012 • CP-38-024 • TI-31-020 (LSA only)

Alternative route	Trapline areas	Bear management areas
Route B3	Total of 12 trapline areas: • CP022 • CP023 • CP027 • CP031 • CP040 • CP041 (LSA only) • CP049 • CP050 • CP052 (vacant) • CP057 • CP058 • TI060	Total of 12 BMAs: • CP-30-029 • CP-31-018 • CP-31-019 • CP-31-022 • CP-31-027 • CP-31-030 • CP-31-032 • CP-31-033 • CP-35-010 • CP-35-012 • CP-38-024 • TI-31-020 (LSA only)
Route C1	Total of 12 trapline areas: • CP019 • TI002 • TI014 • TI016 • TI017 • TI018 • TI019 • TI020 • TI021 • TI028 • TI048 (LSA only) • TI059	Total of 9 BMAs: • CP-30-027 • CP-30-029 • TI-29-007 • TI-30-032 • TI-30-041 • TI-30-044 • TI-31-001 • TI-31-020 • TI-31-025
Route C2	Total of 12 trapline areas: • CP019 • TI002 • TI013 • TI014 • TI016 • TI017 • TI018 • TI019 • TI020 • TI021 • TI048 (LSA only) • TI059	Total of 9 BMAs: • CP-30-027 • CP-30-029 • TI-29-007 • TI-30-032 • TI-30-041 • TI-30-044 • TI-31-001 • TI-31-020 • TI-31-025

4.4.3. Transportation

The LSA contains local and provincial road networks. Highway 101 travels east-west and is paralleled by the alternative routes in several areas. The road classifications identified within the LSA are listed in **Table 4-4**.

Table 4-4: Road classifications within the LSA

District/Municipality	Road Classifications
District of Algoma	• Highway • Local Road • Resource Road
District of Sudbury	• Highway • Local Road • Resource Road
District of Cochrane	• Highway • Collector Road • Local Road
Township of Chapleau	• Local Road
City of Timmins	• Arterial Road • Local Road

The following airports are mapped within 1 km of the alternative routes;

- A heliport (Emergency Evacuation Site #49) is located within the LSA of Routes A1 and A2 (approximately 375 m north of the centreline of both routes);
- A seaplane base is located approximately 300 m north of the LSA of Routes A1 and A2, near the Township of Chapleau; and
- The Ivanhoe Air Strip is located within the PSA of Route B1 (approximately 110 m east of Route B1's centreline at its closest point).

Three rail lines intersect the LSA; one of these is operated by Watco, one is operated by CN Rail, and the other is operated by CPKC Rail. The first CN Rail line intersects the west side of the LSA travelling north-south, crossing Routes A1 and A2 three times. This rail line is also used by the Agawa Canyon Railroad, which is operated by Watco to transport materials for the metals and forestry industries (Watco, 2026). The second CN Rail line runs northwest-southeast, passing through the community of Foleyet, and is crossed by Routes B1, B2, and B3. The CPKC Rail line runs northwest-southeast

passing through the Township of Chapleau. Routes B1, B2, and B3 also cross this rail line.

Transit service in the Township of Chapleau is offered on a door-to-door basis (Township of Chapleau, 2025c). In the City of Timmins, Timmins Transit provides public transit within the urban area. Timmins Transit also offers an on-demand service for those who cannot use regular transit service (City of Timmins, 2025).

Ontario Northland offers regional bus service in the area, including a connection from Timmins to Sudbury that extends along a portion of Highway 101 through the LSA of Routes C1 and C2.

4.4.4. Indigenous lands and interests

The alternative routes and their associated ROWs do not cross Indigenous reserve lands and as a result, the federal *Impact Assessment Act* process was not triggered for this Project. However, there are several reserves located in the general vicinity of the Project, and portions of the PSA for Routes A1 and A2 are within the Chapleau Cree Fox Lake reserve. The following First Nation reserves are located within 5 km of at least one of the alternative routes:

- Brunswick House First Nation: Mountbatten No. 76A – located approximately 800 m southeast of the PSA of Routes B1, B2, and B3;
- Chapleau Cree First Nation:
  - Chapleau Cree Fox Lake – located within the PSA of portions of Routes A1 and A2; and
  - Chapleau 75 – located approximately 3.7 km northeast of the PSA of Routes A1 and A2.
- Chapleau Ojibwe First Nation:
  - Chapleau 74A – located approximately 600 m east of the PSA of Routes A1 and A2;
  - Chapleau 74 – located approximately 2.2 km east of the PSA of Routes A1 and A2;

- Chapleau 61A – located approximately 2.4 km east of the PSA of Routes A1 and A2.

- Michipicoten First Nation: Chapleau 61 – located approximately 2.2 km east of Routes A1 and A2.

4.4.4.1. Traditional land and resource use

While the alternative routes do not cross established Indigenous reserve boundaries, the Project is situated within the traditional territories and historical Treaty areas of several First Nations and Indigenous communities. Indigenous communities exercise constitutionally protected Aboriginal and treaty rights such as hunting, fishing, trapping, gathering of medicinal and food plants, and the maintenance of cultural and spiritual sites.

Due to this traditional land use and the potential for the Project to intersect with established or asserted Section 35 Aboriginal or treaty rights, MEM issued a Letter of Delegation to Hydro One on December 31, 2024. This letter officially delegates the procedural aspects of the Crown's DTC to Hydro One for the Class EA process.

Based on the Crown's preliminary assessment of Section 35 rights and potential Project impacts in the area, MEM directed Hydro One to consult the following communities in its December 2024 delegation letter:

- Apitipi Anicinapek Nation;
- Batchewana First Nation;
- Beaverhouse First Nation;
- Brunswick House First Nation;
- Chapleau Cree First Nation;
- Chapleau Ojibwe First Nation;
- Flying Post First Nation;
- Garden River First Nation;
- Matachewan First Nation;
- Mattagami First Nation;
- Michipicoten First Nation;
- Missanabie Cree First Nation;

- Taykwa Tagamou First Nation;
- Métis Nation of Ontario Regions 2, 3, and 4[12]; or
- Red Sky Métis Independent Nation.

An overview of consultation with Indigenous communities, including details on comments and input related to historical and cultural connections to lands and features in the region, is provided in **Section 3.11.5**.

4.4.4.2. Indigenous communities

This section includes a socio-economic profile for each of the communities listed in **Section 3.11.5**. Where applicable, information on land use planning is included within the profiles. Indigenous community land use plans are often treated as internal governance documents or contain sensitive Traditional Knowledge and, as such, may not be available to the public.

4.4.4.2.1. Apitipi Anicinapek Nation

Apitipi Anicinapek Nation is an Anishinaabe community located in the Cochrane District, near Matheson, Ontario. The community's reserve, Wahgoshig 192, is situated on the south shore of Lake Abitibi. Apitipi Anicinapek Nation is a signatory to Treaty 9, also known as The James Bay Treaty (Indigenous Services Canada [ISC], 2024). The community has a total registered membership of 444 members, with 145 living on-reserve (Apitipi Anicinapek Nation, 2024).

The Nation is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation (Wabun Tribal Council, n.d.). These two organizations describe themselves as follows:

- Wabun Tribal Council is a non-profit community-driven organization which represents its member Nations with regional planning, public relations, political advocacy, and policy development. The primary role of Wabun Tribal Council is to organize and facilitate the delivery of health, education, governance, economic, and resource development services (Wabun Tribal Council, n.d.).

[12] While Métis Nation of Ontario Region 4 was not initially identified in the MEM's December 2024 Letter of Delegation, the Region was subsequently added after being identified by the MNO and included for consultation as the Project progressed.

- Nishnawbe Aski Nation is a political territorial organization representing 49 First Nation communities within northern Ontario. Nishnawbe Aski Nation represents the socio-economic and political aspirations of its First Nation members to all levels of government, with an aim to allow local self-determination while establishing spiritual, cultural, social, and economic independence (Nishnawbe Aski Nation, 2026).

Apitipi Anicinapek Nation manages its lands under the federal administration of the *Indian Act* and has developed bylaws under Section 81 and 85.1 to enact governance (ISC, 2024). The community is actively involved in the regional economy through forestry and mining partnerships, maintaining a focus on sustainable development and the protection of traditional harvesting rights (Apitipi Anicinapek Nation, 2024).

4.4.4.2.2. Batchewana First Nation

Batchewana First Nation is an Ojibwe community located in the Algoma District, near Sault Ste. Marie, Ontario. The community's land base consists of four reserves: Goulais Bay 15A, Obadjiwan 15E, Rankin 15D, and Whitefish Island. Batchewana First Nation is a signatory to the 1850 Robinson-Huron Treaty (Batchewana First Nation, n.d.). The community has a total registered membership of 3,346 members, with 758 members living on-reserve (ISC, 2024).

The Nation is a member of the Anishinabek Nation, which represents 39 First Nations throughout the province of Ontario and has four strategic regional areas. Batchewana First Nation asserts independent governance and sovereignty over its traditional territories, often operating through its own community laws rather than federal land management frameworks (Batchewana First Nation, n.d.). The community is a major economic driver in the region, managing diverse interests in commercial fishing, forestry, and various business ventures through Batchewana Band Industries (Batchewana First Nation, n.d.).

4.4.4.2.3. Beaverhouse First Nation

Beaverhouse First Nation is an Ojibwe community located in the Timiskaming District, near Kirkland Lake, Ontario. Historically identified as a "landless" community, its members have maintained a continuous settlement at the mouth of the Misema River.

Beaverhouse First Nation is an adherent to Treaty 9 and is currently in the process of formalizing its reserve status and land base (Wabun Tribal Council, n.d.). The community has a total registered membership of 1,407 members (ISC, 2024).

The Nation is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation. Governance is enacted through a Custom Election System, and the community maintains a dedicated Lands and Resources department to monitor environmental impacts within its traditional territory (Beaverhouse First Nation, n.d.). The community is focused on securing economic opportunities through resource partnerships and environmental stewardship (Wabun Tribal Council, n.d.).

4.4.4.2.4. Brunswick House First Nation

Brunswick House First Nation, originally known as Wapiscogamy, is an Ojibwe/Anishinaabe community located along Highway 101, approximately 5 km from Chapleau, Ontario. Brunswick House First Nation is a signatory to Treaty 9 (The James Bay Treaty) which covers the James Bay and Hudson Bay watersheds in Ontario. The community consists of two reserve lands, Mountbatten 76A, and Duck Lake 76B. Brunswick House First Nation has a membership population of 763 members with 121 living on-reserve and 642 off-reserve.

Brunswick House First Nation is a member of the Nishnawbe-Aski Nation and is part of the Wabun Tribal Council. The Nishnawbe-Aski Nation is a political territorial organization representing 49 First Nation communities within northern Ontario.

Brunswick House First Nation has developed bylaws under the *Indian Act*, utilizing Section 81 and 85.1 to enact bylaws for governance (First Nations Gazette, 2026a). Brunswick House First Nation is a signatory of the *Framework Agreement on First Nation Land Management Act* (FAFNLMA). The FAFNLMA is an initiative developed by First Nations communities, to opt out of the land-related sections of the *Indian Act*. This process recognizes First Nations rights to govern their reserve lands, as such, Brunswick House First Nation is a self-governing Nation. Brunswick House First Nation has shifted from a traditional fur-trading economy to a diversified portfolio, pursuing opportunities in mining, renewable energy, and blueberry farming. (Brunswick House First Nation, n.d.). Brunswick House First Nation has developed Comprehensive

Community Planning, which is an Indigenous-designed way of developing a long-term community plan which is holistic and integrates departmental and program work in a community-led vision for the future (Brunswick House First Nation, n.d.).

4.4.4.2.5. Chapleau Cree First Nation

Chapleau Cree First Nation is a Mushkegowuk Cree community. Portions of the Chapleau Cree Fox Lake Reserve abut the west boundary of the Township of Chapleau. Chapleau Cree First Nation is a signatory of Treaty 9 (The James Bay Treaty) (Chapleau Cree First Nation, 2026). Chapleau Cree First Nation successfully negotiated for and established its permanent home at the Fox Lake Reserve in 1989. Chapleau Cree First Nation has a total registered membership of 362 members, with 88 residents living on-reserve.

Chapleau Cree First Nation is a member of the Mushkegowuk Council as well as Nishnawbe-Aski Nation. Mushkegowuk Council is a regional political organization representing several First Nations in northern Ontario. The Council supports its member communities by providing advisory, technical, and advocacy services in areas such as health, education, economic development, and social services (Mushkegowuk Council, 2024). The Nishnawbe-Aski Nation is a political territorial organization representing 49 First Nation communities within northern Ontario.

Chapleau Cree First Nation is a self-governing Nation which has developed bylaws under the *Indian Act*, utilizing Section 81 to enact bylaws for governance (First Nations Gazette, 2026b). Chapleau Cree First Nation is listed as “Other Signatories – Inactive” on the Lands Advisory Board, First Nations Land Management Resource Centre, regarding the FAFNLMA. This means Chapleau Cree First Nation has signed the FAFNLMA but has yet to advance a Land Code (First Nations Land Management Resource Centre, 2026). The Nation’s governance is guided by legal and strategical instruments, including the Mushkegowuk Election Code (2019) and the Chapleau Cree First Nation Community Development Strategy (2010).

The Chapleau Cree First Nation’s Chief and Council have a Code of Conduct built on the Nation’s Election Code which reinforces traditional Values and outlines the positions and expectations of the People. The Code of Conduct outlines that the leaders are to

"protect, defend, and promote with vigor, passion, and conviction our People's traditional philosophies, principles, language, and sacred right to harvesting from the land, air, and waters" (Chapleau Cree First Nation, 2026).

4.4.4.2.6. Chapleau Ojibwe First Nation

Chapleau Ojibwe First Nation is an Anishinaabe community located approximately 2 km south of the Township of Chapleau along Highway 101. The community is unique in the area as the only Ojibwe-language reserve, with historical ties stretching west toward Lake Superior and south toward Lake Huron. Chapleau Ojibwe First Nation is a signatory to Treaty 9 but due to the First Nation's southern and western kinship ties, much of their traditional territory also intersects with lands ceded under the 1850 Robinson Treaties (Anishinaabe History, n.d.; Government of Ontario, 2014).

Chapleau Ojibwe First Nation has three reserve parcels, all of which abut the eastern boundary of the Township of Chapleau: Chapleau 74A, Chapleau 61A, and Chapleau 74. Chapleau Ojibwe First Nation was originally based on the shores of the Chapleau River, and the First Nation moved three times before being permanently established at its present location (Wabun Tribal Council, n.d.). The community is small but growing, with a total registered membership of 60 to 70 members, of whom it is estimated 35 to 40 live on-reserve.

Chapleau Ojibwe First Nation is a member of the Nishnawbe-Aski Nation and the Wabun Tribal Council. Chapleau Ojibwe First Nation operates under the *Indian Act* electoral system and maintains strong political and service-oriented partnerships with both the Nishnawbe Aski Nation and the Wabun Tribal Council. Chapleau Ojibwe First Nation manages their lands under the federal administration of the *Indian Act*.

Chapleau Ojibwe First Nation is actively engaged in economic development through strategic partnerships which focus on resource development, energy, and infrastructure (Wabun Tribal Council, n.d.).

4.4.4.2.7. Flying Post First Nation

Flying Post First Nation is an Ojibwe and Cree community whose Reserve, Flying Post 73, is located approximately 18 km west of the western boundary of the City of Timmins

along the Groundhog River. The community's administrative hub is in the City of Timmins.

Flying Post First Nation is a signatory of Treaty 9 which contains fishing and hunting rights, the creation of Reserves, education and hunting rights, and provisions for cash treaty payments (Flying Post First Nation, n.d.). Flying Post First Nation is a member of the Nishnawbe-Aski Nation and the Wabun Tribal Council. Flying Post First Nation manages their lands under the federal administration of the *Indian Act*.

The Chief and Council of Flying Post First Nation are committed to the ongoing and future prosperity of the Nation and are engaged with several opportunities and partnerships in the region including the Niiwin General Partnership Inc. and an Impact and Benefit Agreement partnership with IAMGOLD.

4.4.4.2.8. Garden River First Nation

Garden River First Nation (Ketegaunseebee) is an Ojibwe community located along the St. Marys River, east of Sault Ste. Marie, Ontario. The community's reserve, Garden River 14, encompasses over 20,000 ha. Garden River First Nation is a signatory to the 1850 Robinson-Huron Treaty (Garden River First Nation, n.d.). The community has a total registered membership of 3,842 members, with 1,252 living on-reserve (ISC, 2024).

The Nation is a member of the North Shore Tribal Council and the Anishinabek Nation. Garden River First Nation manages its lands under the *Indian Act* and has enacted local zoning and resource management laws to guide community development (ISC, 2024). The community is recognized for its leadership in infrastructure management and economic development, particularly through its business park and highway administration (Garden River First Nation, n.d.).

4.4.4.2.9. Matachewan First Nation

Matachewan First Nation is an Ojibwe community. The Nation's reserve, Matachewan 72 is located approximately 60 km southeast of the City of Timmins. The First Nation has a total registered membership of 1,037 members, with an on-reserve population of

65 residents. Matachewan First Nation is a signatory of Treaty 9 and has a long history as part of the specialized fur-trading network along the Montreal River.

Matachewan First Nation operates under the *Indian Act* Electoral System, with a two-year term for leadership. Matachewan First Nation is a member of the Wabun Tribal Council and the Nishnawbe-Aski Nation. Matachewan First Nation adheres to the Matachewan First Nation Governance and Administration Code (2016), which outlines that the Nation's elected officials and employees are "guided by the principles of transparency, knowledge, collaboration, effectiveness, responsiveness, bravery, honesty and uniqueness" (Matachewan First Nation, 2016). Matachewan First Nation manages their lands under the federal administration of the *Indian Act*.

Matachewan First Nation has several mining partnerships in the regional mining sector, holding Impact Benefit Agreements with companies such as Agnico Eagle and Alamos Gold. These agreements provide community members access to high-quality employment and environmental oversight roles (Agnico Eagle, n.d.; Matachewan First Nation, 2017).

4.4.4.2.10. Mattagami First Nation

Mattagami First Nation is an Anishinaabe (Ojibwe and Oji-Cree) community situated on the northwest shores of Mattagami Lake, approximately 80 km south of the City of Timmins (Mattagami First Nation, 2026). The name "Mattagami" translates to "Meeting of the Waters," reflecting the First Nation's ancestral connection to the Mattagami River and the surrounding watershed. Mattagami First Nation is a signatory of Treaty 9 and has a total registered population of 700 members with 200 members living on-reserve.

Mattagami First Nation is a member of the Wabun Tribal Council and the Nishnawbe-Aski Nation. Mattagami First Nation is listed as "Other Signatories – Inactive" under the FAFNLMA (First Nations Land Management Resource Centre, 2026). As such, Mattagami First Nation's lands are still managed under the federal administration of the *Indian Act* until the First Nation develops, approves, and enacts their own Land Code.

Mattagami First Nation has several ongoing projects, including:

- The Waterfront Development Project, which includes a Master Plan of the community's waterfront;
- The Community Expansion Project; and
- The Food Production and Horticultural Spaces Project (Mattagami First Nation. n.d.).

Mattagami First Nation also has various resource and business partnerships through Mattagami Aki, the economic development arm of Mattagami First Nation (Northern Ontario Business, 2025; Mattagami Aki, 2025). Mattagami First Nation has developed several initiatives through Mattagami Aki, including Impact Benefit Agreements with resource extraction companies such as IAMGOLD and their Côté Gold Mine near Gogama (Northern Ontario Business, 2025).

4.4.4.2.11. Michipicoten First Nation

Michipicoten First Nation is an Ojibwe community whose ancestral lands are located along the northeastern shores of Lake Superior and the mouth of the Michipicoten River, Michipicoten Bay, with ancient canoe routes acting as the gateways to the northern Ontario interior and as far north as James Bay with access to the vast interior of what is now northern Ontario and connecting it with the other Great Lakes and Hudson's Bay (Michipicoten First Nation, 2026). Michipicoten is a signatory of the Robinson-Superior Treaty, Treaty 61 (Michipicoten First Nation, 2026; Government of Canada, 2010). The Michipicoten First Nation land base consists of four reserve parcels, with Inland parcels near the Township of Chapleau (IR61), and Dog Lake (IR62), as well as coastal parcels at Gros Cap (IR49, IR49A), near the Municipality of Wawa. Michipicoten First Nation is a member of the Anishinabek Nation, as part of the Northern Superior region (Anishinabek Nation, 2026). Michipicoten First Nation has a total of 1587 members, with 60 living on-reserve (Government of Canada, 2026a).

Michipicoten First Nation is listed as "Other Signatories - Inactive" under the FAFNLMA (First Nations Land Management Resource Centre, 2026). As such, Michipicoten First Nation's lands are still managed under the federal administration of the *Indian Act* until the First Nation develops, approves, and enacts their own Land Code. Michipicoten

First Nation has developed a Land Use Plan, with the guiding principle of "Awechigewin", meaning "set things up for a desired outcome" (Michipicoten First Nation, 2022a). The Awechigewin guiding principal is a concept that has deep roots in traditional Anishinaabe ways of life and has conceptually underpinned the Land Use Planning Process (Michipicoten First Nation, 2022a). The Land Use Plan sets the stage for growth to 2042 and includes zoning by-laws for the First Nation reserve lands. The Land Use Plan also outlines the goal of seeking alternative land management, under the FAFNLMA (Michipicoten First Nation, 2022a; Michipicoten First Nation 2022b). Michipicoten has also established a Special Committee on Governance who has been tasked with a Governance Reform Project, which is seeking to enhance the Nation's leadership selection process through the development of an Election Law and will re-examine Council's role and responsibilities (Michipicoten First Nation, n.d.).

Michipicoten First Nation has several partnerships and Impacts Benefits Agreements with partners in the mining and energy sectors.

4.4.4.2.12. Missanabie Cree First Nation

Missanabie Cree First Nation is a Mushkegowuk Cree community. The ancestral land of Missanabie Cree First Nation lies within the Missanabie Lake, Dog Lake, and Wabatongushi Lake areas of northeastern Ontario. Missanabie Cree First Nation are signatories to Treaty 9 (James Bay Treaty) though the First Nation was not granted a land base at the time of signing. After decades of advocacy, the community successfully negotiated a land transfer in 2018 and officially established a reserve near Missanabie, Ontario. Missanabie Cree First Nation has a total of 654 registered members with three members living on-reserve (Government of Canada, 2026b).

Missanabie Cree First Nation is a signatory of the FAFNLMA, having developed the Missanabie Cree Land Code in December 2024 (Missanabie Cree First Nation, 2024). Missanabie Cree First Nation held a Land Code vote in May 2025, and ratified the agreements, meaning the First Nation's lands are no longer federally administered under the *Indian Act*. Missanabie Cree First Nation is a member of the Mushkegowuk Council and Nishnawbe Aski Nation.

Missanabie Cree First Nation has partnered with the MCBC to create and manage a portfolio of assets that deliver sustainable benefits to the Missanabie Cree First Nation. MCBC projects include Community Benefit Agreements with Alamos Gold and Argonaut Gold. The MCBC has also established several Joint Venture Partnership agreements that have provided valuable job opportunities and increased economic opportunities for the community (MCBC, n.d.).

4.4.4.2.13. Métis Nation of Ontario Regions 2, 3, and 4

The Métis Nation of Ontario represents the collective interests of Métis citizens through a provincial governance structure and regional Community Councils. Within the Project area, MNO represents three distinct historic communities: Region 2 (Northern Lake Superior), Region 3 (Abitibi Inland), and Region 4 (Huron-Superior) which together represent 3,190 Métis households (Métis Nation of Ontario, 2024a). The Métis Nation of Ontario's rights-bearing status and harvesting rights are anchored in the Supreme Court of Canada's R. v. Powley decision, which recognized the specific rights of Métis communities in northern Ontario (Métis Nation of Ontario, 2024b).

Region 2 represents the Northern Lake Superior Historic Métis Community, which traditionally centered around coastal fur trade posts such as Michipicoten and Nipigon House. The cultural identity of Region 2 is deeply tied to the maritime landscape and fisheries of the Lake Superior shore (Métis Nation of Ontario, 2024b).

Region 3 represents the Abitibi Inland Historic Métis Community, which developed along the "Height of Land" and inland river systems, with historical roots in posts such as Mattagami, Matachewan, and Flying Post (Abitibi Inland Métis Community, 2024). While Region 2 focuses on coastal impacts and Great Lakes shipping routes, Region 3 is more closely aligned with the boreal forestry and inland trapping heartland of the City of Timmins and the Township of Chapleau areas (Wabun Tribal Council, n.d.).

Region 4 represents the Huron-Superior Historic Métis Community, which served as a crossroads for the fur trade between the upper and lower Great Lakes. The cultural landscape of Region 4 is defined by a traditional economy that harmonized inland trapping with intensive seasonal whitefish harvesting at the rapids (Great Lakes Métis Council, 2024). Unlike the more isolated coastal posts of Region 2 or the inland river

systems of Region 3, Region 4's history is characterized by its high degree of mobility and its function as a primary gathering place for Métis families across the Lake Huron and Lake Superior shorelines (Métis Nation of Ontario, 2024b).

4.4.4.2.14. Red Sky Métis Independent Nation

Red Sky Métis Independent Nation consists of descendants of the 84 "half-breed" families recognized as beneficiaries under the Robinson-Superior Treaty of 1850 (Red Sky Métis Independent Nation, 2010). Red Sky Métis Independent Nation is based in Thunder Bay. The traditional territory of Red Sky Métis Independent Nation spans the north shore of Lake Superior from the Pigeon River to the Michipicoten River (Red Sky Métis Independent Nation, n.d.). Red Sky Métis Independent Nation operates independently of the Métis Nation of Ontario.

Red Sky Métis Independent Nation's governance is based on its own constitution and a focus on the unique heritage of the Robinson-Superior Métis. The community is actively involved in environmental and AAs for projects within their traditional territory to protect their historical presence and ensure the sustainability of the land and water (Red Sky Métis Independent Nation, n.d.).

4.4.4.2.15. Taykwa Tagamou Nation

Taykwa Tagamou Nation is an Ojibwe and Cree First Nation location in the Cochrane District of northern Ontario. Taykwa Tagamou Nation's reserve lands (IR 69A) are along the Abitibi River, approximately 6 km southeast of the Town of Cochrane.

Previously named New Post First Nation, Taykwa Tagamou means "water on high ground" and better reflects the community's spirit and essence of the territory within the Moose River Basin (Taykwa Tagamou Nation, 2026a). Taykwa Tagamou Nation is a signatory of Treaty 9 with a registered population of 713 people with 159 individuals living on-reserve (Government of Canada, 2026c). Taykwa Tagamou Nation are members of the Mushkegowuk Council and the Nishnawbe Aski Nation.

Taykwa Tagamou Nation operates under its own Election Code, which was passed in 2021 (Taykwa Tagamou Nation, 2026a). Taykwa Tagamou Nation operates under the

Indian Act, utilizing Section 81 of the Act to enact by-laws. Taykwa Tagamou Nation manages their lands under the federal administration of the *Indian Act*.

Taykwa Tagamou Nation has successfully negotiated major Impact and Benefit Agreements and equity partnerships in the mining and energy sectors, notably with Agnico Eagle, and various hydroelectric projects on its traditional territory (Gemmill, 2024; Taykwa Tagamou Nation, 2026b).

4.4.4.3. Community values

As part of the Project, Hydro One received input regarding community Values from several Partner First Nations. Partner First Nations provided community Values mapping directly to Hydro One or conducted screenings through their internal databases using the alternative route shapefiles. The community Values mapping that was shared with Hydro One outlines areas of significance for the communities where infrastructure development should be avoided. Where necessary and feasible, route refinements were made to limit impacts to these areas, as noted in **Section 5.2.1**. Community values mapping was also integrated into the comparative evaluation of alternative routes as outlined in **Section 5.3.3**. Community values mapping will continue to be integrated as the project progresses where possible.

Information shared through community Values mapping has been requested to remain confidential for the Project. As such, further information regarding community Values will not be shared.

In addition to the above, other Indigenous communities provided comments and input regarding community Values during the TAC workshops and other consultation meetings, as outlined in **Section 3.10.1.1** and **Section 3.10.2.1**. This input helped to inform the comparative evaluation of alternative routes.

4.5. Mineral resources

The general Project area is rich in mineral resources. Occurrence records from the Ontario Mineral Inventory note occurrences of several mineral resources including iron, gold, silver, copper, zinc, nickel, and lead (MEM, 2025a).

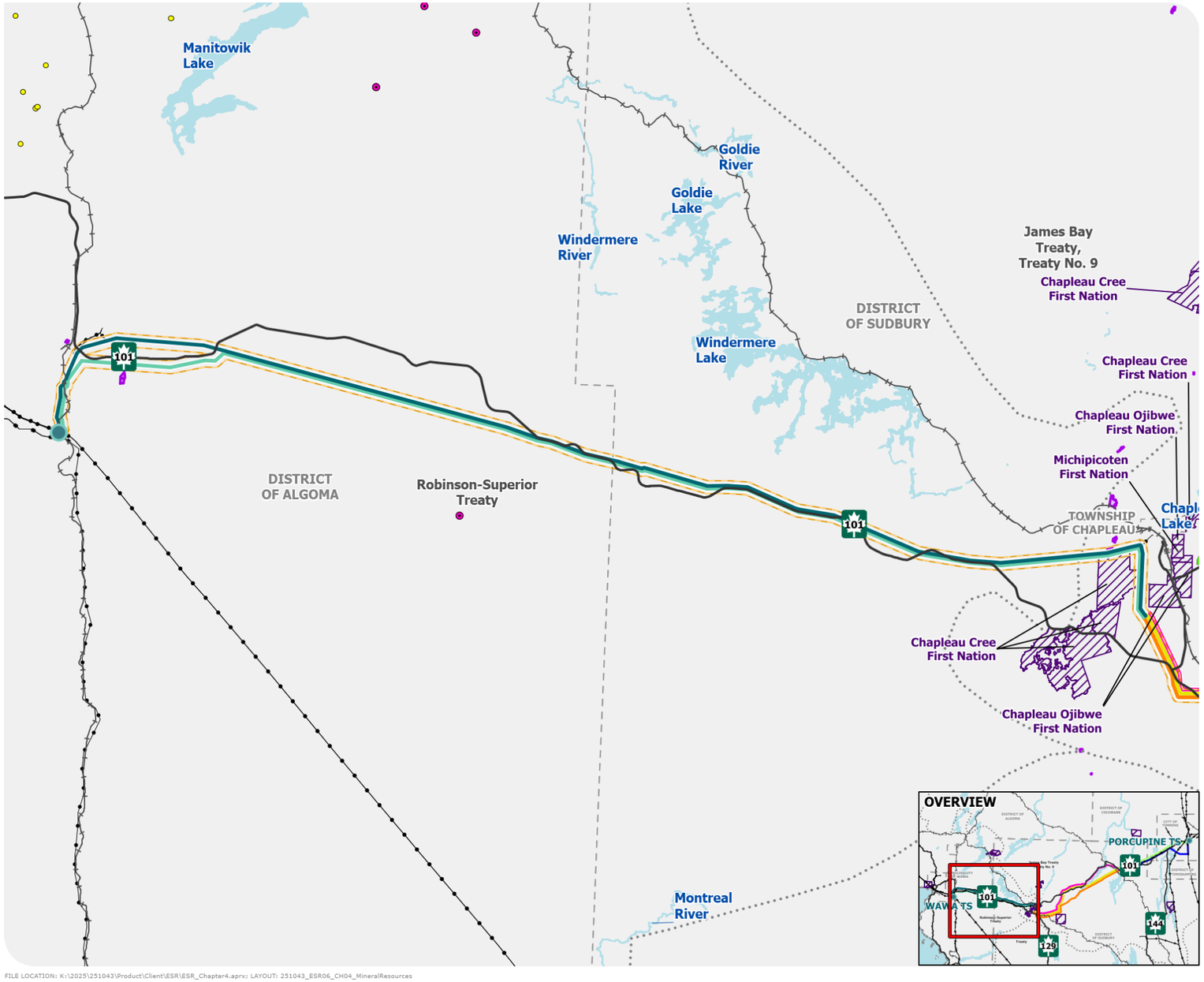
The LSA of each of the alternative routes extends through areas subject to mining and aggregate activity to varying degrees, as outlined in **Table 4-5** (MEM, 2025b). Additionally, Routes C1 and C2 are located near major industrial mining sites surrounding the City of Timmins, such as the Timmins West Mine.

Locations of mapped areas of potential mineral resources, mining exploration activities, aggregate sites, aggregate extraction areas, and aggregate designated areas within the general Project area are illustrated in **Figure 4-5**.

Table 4-5: Mining and aggregate extraction areas within the LSA

Mapped features	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Mining claims	0	0	209	219	201	464	548
Mineral exploration projects within last 12 months	0	0	0	0	0	4	0
Active mining permits	0	0	1	1	1	2	2
Active aggregate permits	1	1	2	1	1	2	2
Aggregate extraction areas	0	0	0	0	0	1	1

Figure 4-5A: Mineral resources – Segment A



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

MINERAL RESOURCES: SEGMENT A

FIGURE 4-5A

- Existing Transformer Station (TS)
- Existing Transmission Line
- Alternative Routes
  - Route Segment A1
  - Route Segment A2
  - Route Segment B1
  - Route Segment B2
  - Route Segment B3
- Local Study Area (500 m on either side of the route centreline)
- Mining Exploration Activity
- Areas of Potential Mineral Resources
- Aggregate Extraction Area
- Aggregate Site Authorized - Active

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body

SCALE 1:282,000

0 3.25 6.5 13 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

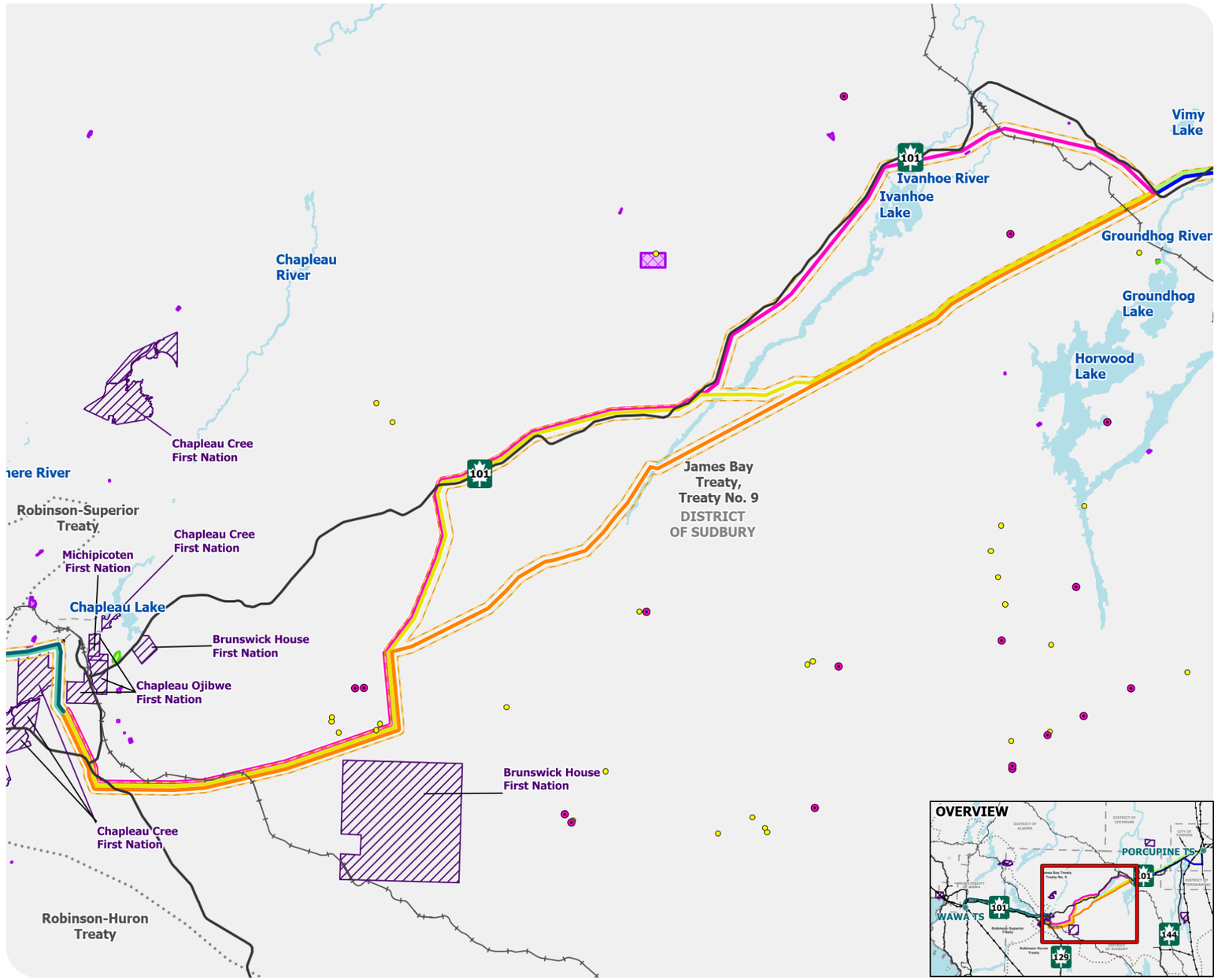
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Figure 4-5B: Mineral resources – Segment B



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

MINERAL RESOURCES: SEGMENT B

FIGURE 4-5B

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2
- Local Study Area (500 m on either side of the route centreline)

- Mining Exploration Activity
- Areas of Potential Mineral Resources
- Aggregate Extraction Area
- Aggregate Site Authorized - Active

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Water Body

SCALE 1:299,000

0 3.5 7 14 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

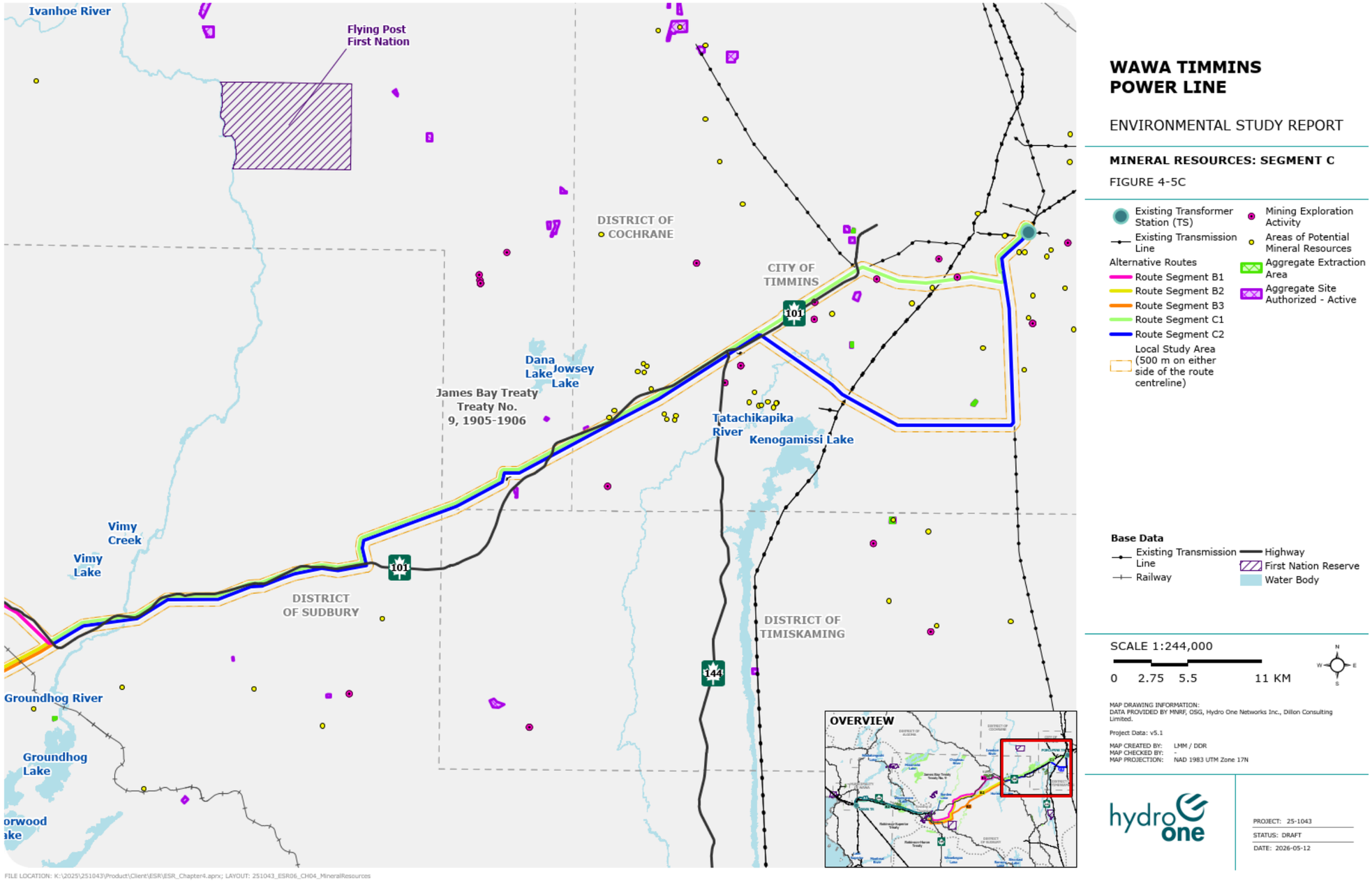
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Figure 4-5C: Mineral resources – Segment C



4.6. Natural environment resources

Natural environment features, including air, land, water, wildlife, and wildlife habitat resources and features, were factors considered as part of this Class EA. This section addresses physical and biological features in the PSA, including baseline information for the following types of features:

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

Ecological field surveys were conducted in accordance with the Natural Environment Field Program Methodology (Dillon, 2024) for the Project. Ecological field survey staff were regularly accompanied by Indigenous monitors. Field data was collected from public road ROWs, Hydro One's existing transmission ROW, and Crown Lands.

Field data collected from adjacent lands was supplemented with information collected through aerial imagery interpretation and secondary data sources. Results of the ecological field surveys are summarized in the Natural Environment Existing Conditions Report for the Project (**Appendix C-3**). An overview of the 2025 ecological field survey program results is provided in **Section 4.6.7**.

Potential impacts to natural heritage resources identified in the following subsections including applicable mitigation/avoidance measured are further discussed in Chapter 7.

4.6.1. Physical environment

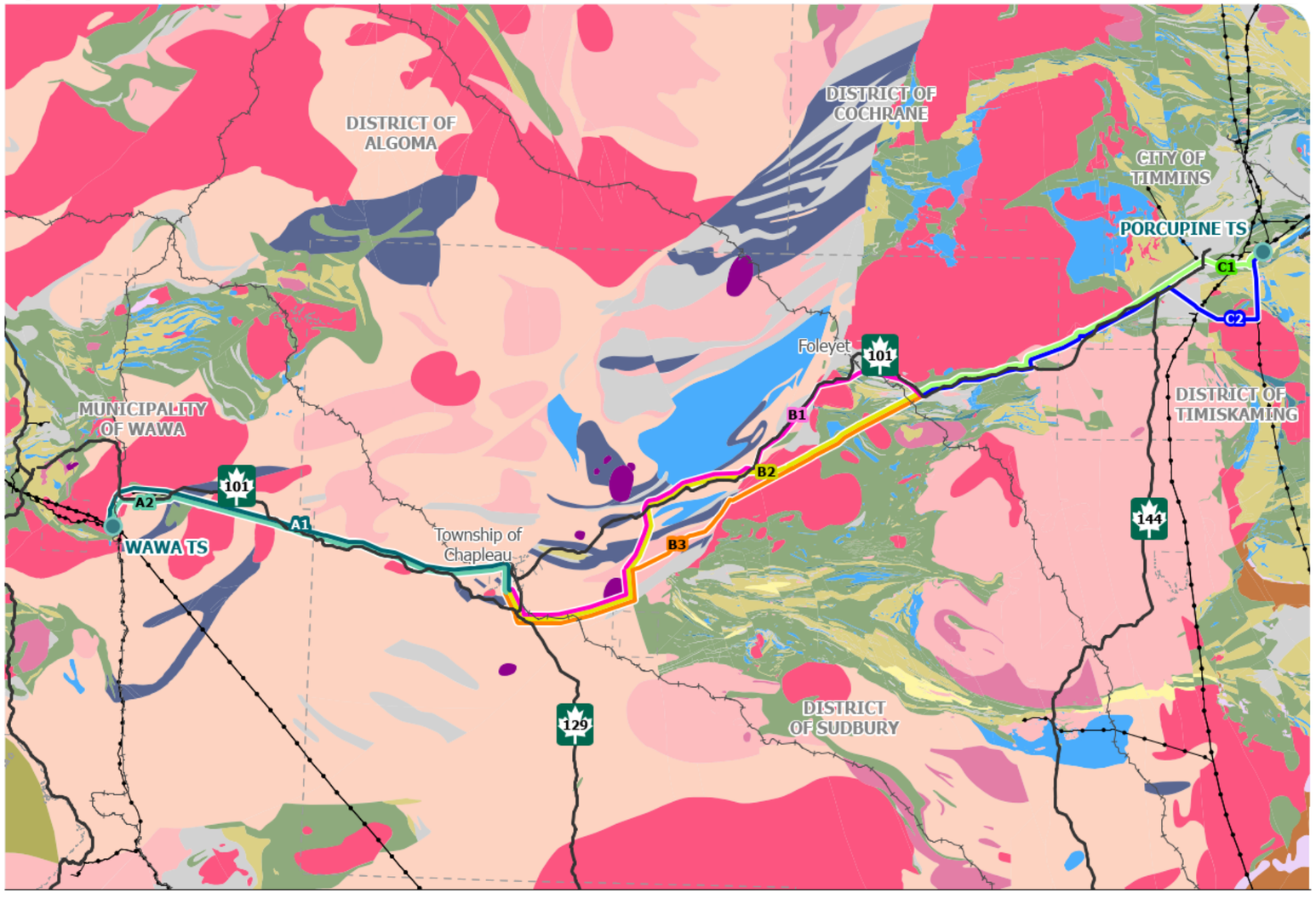
Bedrock geology of the PSA is illustrated on **Figure 4-6** (MEM, 2011). Bedrock within the western and central portion of the PSA along Routes A1, A2, B1, B2, and B3 consists primarily of Gneissic Tonalite Suite (MEM, 2011). The western portion of the PSA consist of a mix of Massive Granodiorite to Granite, Mafic to Intermediate Metavolcanic rocks, and Gneissic Tonalite Suite (MEM, 2011). Pockets of Migmatized Supracrustal rocks, Mafic and Ultramafic Rocks, and Metasedimentary rocks are dispersed throughout the PSA (MEM, 2011).

Quaternary geology of the PSA is depicted in **Figure 4-7** (MEM, 2000). The surface geology includes several types of soil and sediment: Precambrian bedrock, glaciofluvial outwash deposits, glaciofluvial ice-contact deposits, till, glaciolacustrine deposits, and fluvial deposits (Barnett et al., 1991). These types are described below.

- Precambrian Bedrock is undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift. Precambrian bedrock is the dominant substrate found across Routes A1, A2, B1, B2, and B3;
- Glaciofluvial outwash deposits consist of gravel and sand, including proglacial river and deltaic deposits. This material is scattered across Routes A1, A2, B1, B2, and B3;
- Glaciofluvial ice-contact deposits consist of gravel, sand, and minor till, including esker, kame, end moraine, ice-marginal delta, and subaqueous fan deposits. These deposits are found along Routes A1, A2, B1, B2, and B3, primarily around the Township of Chapleau;
- Till is a predominantly sand to silty sand matrix, with high contents of clasts, with low carbonate content. Till is found primarily along Routes C1 and C2, near the City of Timmins;
- There are two types of glaciolacustrine deposits found along alternative routes for the Project:
    - Glaciolacustrine deposits consisting of sand, gravel, and beach deposits. This material is found primarily south of the Township of Chapleau, along Routes B1, B2, and B3, and south of the City of Timmins, along Routes C1 and C2; and
    - Glaciolacustrine deposits consisting of silt and clay, with minor sand, basins, and quiet water deposits are found along Routes B1, B2 and B3, near Ivanhoe Lake, and around the City of Timmins, along Routes C1 and C2.
- Fluvial deposits consist of gravel, sand, silt and clay, deposited on modern flood plains. These types of deposits are found along the PSA of Route C1, near the City of Timmins.

In summary, the PSA contains a range of deposit types resulting from glacial and fluvial processes. Bedrock is prevalent in the western and central portions of the PSA, along Routes A1, A2, B1, B2, and B3, while till and glaciolacustrine deposits are more common in the eastern portion, particularly along Routes C1 and C2. Coarse sands and gravels associated with former shoreline environments are distributed throughout the area. Additionally, modern fluvial deposits are present, with recent materials found along active floodplains and older deposits located on abandoned floodplains within of the PSA.

Figure 4-6: Bedrock geology



Bedrock Geology
- Mafic and ultramafic rocks
- Gneissic tonalite suite
- Foliated tonalite suite
- Diorite-monzondiorite-granodiorite suite (saturated to oversaturated suite)
- Massive granodiorite to granite
- Hornblendite - nepheline syenite suite (saturated to undersaturated suite)
- Siltstone, argillite, sandstone, conglomerate
- Mafic and related intrusive rocks and mafic dikes
- Alkalic Intrusive Suite and Carbonatite
- Sandstone, shale, conglomerate
- Mafic to ultramafic metavolcanic rocks
- Mafic to intermediate metavolcanic rocks
- Felsic to intermediate metavolcanic rocks
- Metasedimentary rocks
- Migmatized supracrustal rocks
- Coarse clastic metasedimentary rocks

WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

BEDROCK GEOLOGY

FIGURE 4-6

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Base Data
- Existing Transmission Line
- Railway
- Highway

SCALE 1:850,000

0 10 20 40 KM

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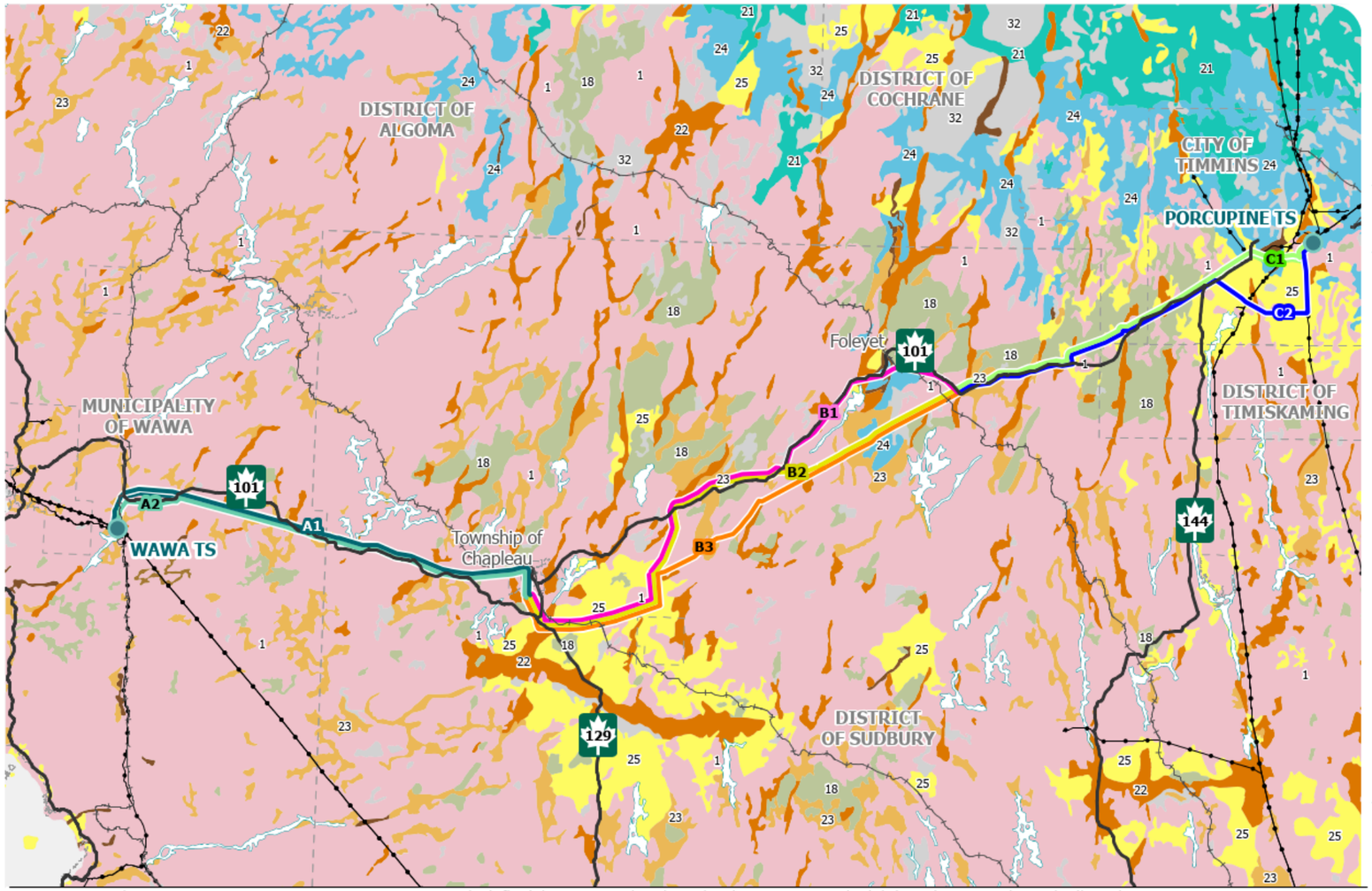
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Figure 4-7: Quaternary geology



Quaternary Geology

- 1: Bedrock - undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift
- 18: Till - undifferentiated, predominantly sand to silty sand matrix, high content of clasts, often low in matrix carbonate content
- 21: Till, fine-grained - undifferentiated, fine grained, predominantly silty clay to silt matrix, commonly clast poor, high matrix carbonate content
- 22: Glaciofluvial Ice - gravel and sand, minor till, includes esker, kame, end moraine, ice-marginal delta and subaqueous fan deposits
- 23: Glaciofluvial Outwash deposits - gravel and sand, includes proglacial river and deltaic deposits
- 24: Glaciolacustrine deposits - silt and clay, minor sand, basin and quiet water deposits
- 25: Glaciolacustrine deposits - sand, gravelly sand and gravel, nearshore and beach deposits
- 28: Fluvial deposits - gravel, sand, silt and clay, deposited on abandoned flood plains, terrace remnants
- 31: Fluvial deposits - gravel, sand, silt and clay, deposited on modern flood plains
- 32: Organic deposits - peat, muck and marl
- 33: Lakes

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WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

QUATERNARY GEOLOGY

FIGURE 4-7

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes

- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Base Data

- Existing Transmission Line
- Railway
- Highway

SCALE 1:850,000

0 10 20 40 KM

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4.6.2. Atmospheric environment

4.6.2.1. Climate

The PSA is mostly located within the Humid Mid-Boreal Ecoclimatic Region (Ecoregion 3E – Lake Abitibi Ecoregion). Climate in this region includes long, cold, and snowy winters, followed by warm, short summers. The growing season is approximately 167 to 185 days.

A small portion of the PSA along the western-most portions of Routes A1 and A2, near the Municipality of Wawa, is found within the Humid Low Boreal Ecoclimatic Region (Ecoregion 4E – Lake Temagami Ecoregion). Climate in this region is humid and cool. The growing season is approximately 171 to 200 days (Crins, Uhlig, & Wester, 2009).

The following meteorological stations with sufficient long-term data for the general Project area have been identified:

- Timmins/Victor Power (Climate IDs 6078285, 6078286, and 6078282) – located approximately 13 km northwest of Route C2 and approximately 14.8 km north of Route C1;
- Chapleau (Climate IDs 6061361, 6061365, and 6061362) – located approximately 5.5 km east of Routes A1 and A2 and approximately 6.1 km southwest of Routes B1, B2 and B3; and
- Wawa (Climate IDs 6059413, 6059407, 6059408, and 6059D09) – located approximately 19 km west of Routes A1 and A2.

Temperature and precipitation data listed in **Table 4-6** are based on annual Climate Normal data available from 1991 and 2020 (Government of Canada, 2026d).

Table 4-6: Summary of published annual climate normals for the 1991 to 2020 period

Parameter	Timmins/Victor Power Climate ID: 6078285, 9078286, and 6078282	Chapleau Climate ID: 6061361, 6061365, and 6061362	Wawa Climate ID: 6059413, 6059407, 6059408, and 6059D09
Daily average (degrees Celsius [°C])	1.9	2.1	2.3
Daily maximum (°C)	8.0	8.0	7.8
Daily minimum (°C)	-4.1	-3.8	-3.2
Rainfall (millimetres [mm])	543.1	579.1	709.8
Snowfall (centimetres [cm])	307.6	284.1	313.9
Precipitation (mm)	796.2	841.4	967.2
Days with maximum temperature > 35°C	0.24	0.04	0.0
Days with minimum temperature < -30°C	14.1	14.5	8.9
Days with rainfall ≥ 25 mm	1.9	2.9	5.1
Days with snowfall ≥ 25 cm	0.43	0.46	0.37
Days with precipitation ≥ 25 mm	2.5	3.5	5.6
Days with Precipitation ≥ 0.2 mm	189.3	193.1	167.6
Monthly precipitation (mm) Minimum and maximum	39.9 (February) 86.2 (October)	41.9 (February) 101.1 (September)	44.1 (February) 125.1 (September)
Extreme Daily Rainfall (mm) Minimum and maximum	9.0 (February) 87.6 (July)	12.4 (February) 82.6 (June)	14.0 (January) 101.6 (October)
Extreme snow depths (cm)	157 (December)	132 (March)	145 (March)
Frost-free period	June 7 to September 7 91 days	May 29 to September 18 111 days	June 2 to September 20 109 days

Source: Government of Canada, 2026d

4.6.2.2. Temperature

The climate normal mean annual temperature recorded at the meteorological stations in **Table 4-6** varies between 1.9 and 2.3 °C. For these stations, the climate normal daily minimum and maximum average temperature varies between -4.1 and -3.2 °C and 7.8 and 8.0 °C, respectively. The climate normal frost period for the stations ranges between 91 days to 111 days (Government of Canada, 2026d).

4.6.2.3. Precipitation

Precipitation is distributed throughout all four seasons, with snowfall typically limited to between October to May, and rainfall occurring throughout the year. As shown in **Table 4-6**, climate normal days with precipitation (0.2 mm or more) for the three meteorological stations varies between 167.6 and 193.1 days (Government of Canada, 2026d).

Climate normal monthly precipitation varies as follows:

- Between 39.9 mm (February) and 86.2 mm (October) at Timmins/Victor Power;
- Between 41.9 mm (February) and 101.1 mm (September) at Chapleau; and
- Between 41.1.0 mm (February) and 125.1 mm (September) at Wawa.

The climate normal total annual precipitation ranges between 796.2 mm and 967.2 mm for the meteorological stations.

Extreme daily rainfall ranges are as follows:

- Between 9.0 mm (February) and 87.6 mm (July) at Timmins/Victor Power;
- Between 12.4 mm (February) and 82.6 mm (June) at Chapleau; and
- Between 14.0 mm (January) and 101.6 mm (October) at Wawa.

The maximum extreme snow depths across the meteorological stations include 157 cm (December) at Timmins/Victor Power, 132 cm (March) at Chapleau, and 145 cm (March) at Wawa.

4.6.2.4. Wind

At the Timmins/Victor Power station, winds primarily blow from the south with an average speed of 11.7 kilometres per hour (km/hr) (Government of Canada, 2026d). At the Wawa station, winds primarily blow from the southwest with an average speed of

9.1 km/hr (Government of Canada, 2026d). Wind data was not provided in the climate normal data for the Chapleau station.

4.6.2.5. Air quality

In Ontario, air quality is monitored through a network of air quality monitoring stations operated by MECP and ECCC (MECP, 2026a; ECCC, 2026). MECP monitors air quality throughout the province as part of the Air Quality Monitoring System (MECP, 2026a). The nearest stations are in Sault Ste. Marie and Sudbury. The Sault Ste. Marie station is located approximately 150 km south of Routes A1 and A2 and 150 km southwest of Routes B1, B2, and B3. The Sudbury station is located approximately 206 km south of Route C2.

Through hourly monitoring, an Air Quality Health Index (AQHI) reading summarizes background air quality levels for the following chemicals are measured at the stations:

- Ozone (O_3);
- Nitrogen dioxide (NO_2);
- Carbon monoxide (CO)
- Sulphur dioxide (SO_2); and
- Particulate matter ($PM_{2.5}$) (MECP, 2026; ECCC, 2026).

The AQHI creates a score (i.e., 1 to 10+) totalling the overall risk associated with levels recorded for the parameters measured. A score of 1 to 3 indicates a low risk, a score of 4 to 6 indicates a moderate risk, while a score of 7+ indicates a high risk to ambient air quality. Air monitoring data summarized to provide AQHI scores from the stations represent the combined effect of emissions from nearby sources, as well as the effect of emissions transported into the region. AQHI readings are recorded hourly.

Average daily AQHI readings recorded over the 2023, 2024, and 2025 monitoring years indicate a low score (1 to 3) and, therefore, a low risk to air quality, for the Sault Ste. Marie area (MECP, 2026a). Similarly, annual average AQHI readings recorded for the parameters measured at the Sudbury station indicate an overall low score (1 to 3) during 2023, 2024, and 2025 (MECP, 2026a).

4.6.2.6. Noise

In accordance with MECP guidance, noise-sensitive receptors, or points of reception, are defined as sensitive land uses, which include:

- Dwellings;
- Institutional use (educational, nursery, hospital, health care facility, community centre, place of worship or detention centre); and
- Commercial use (hotel or motel) (MECP, 2016a).

Based on a desktop review, potential noise-sensitive receptors include rural residential dwellings, recreational activities, and tourism uses.

Ambient noise conditions within the LSA are understood to be relatively quiet in general as the LSA primarily consists of forested areas. Anthropogenic activities are expected to result in higher ambient noise levels around urban centres such as the Township of Chapleau and the City of Timmins. Potential anthropogenic activities include roads, commercial activities, and residential activities. The actual ambient noise levels at a given point of reception depend on several factors, including:

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

Ambient noise levels are expected to vary throughout the day, days of the week, and seasons of the year. Ambient noise levels in some areas are expected to be at their highest outside the winter months due to more active mining and forestry operations.

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

- Local and distant road traffic;
- Railway activities;
- Mining and forestry operations (seasonal); and
- Residential activities.

4.6.3. Surface water resources

For the purposes of ecological field surveys conducted in 2025/2026 in support of the Class EA, surface aquatic features were defined using two categories: watercourses and waterbodies. Watercourses were considered rivers and streams/creeks, whereas waterbodies were considered natural or man-made lakes that are land-locked within the landscape. Watercourse survey locations were selected to include open watercourses that crossed the alternative route centrelines with roadside access for assessment. Aquatic features adjacent to the PSA but not crossed were not surveyed.

A total of 52 watercourse survey locations were proposed in support of the 2025 field program. Of the 52 identified watercourse survey locations, 46 were assessed as part of the 2025 field program. Two watercourse survey locations could not be accessed during surveys; however, their downstream reaches were assessed instead as they could be accessed safely. Selection of watercourses and locations of watercourses assessed as part of the 2025 field program is further detailed in **Appendix C-3**. Additional watercourse surveys are anticipated to occur in 2026 along the preferred route.

The PSA is located in the Ontario Fisheries Management Zones (FMZ) 7, 8, and 10 (MNR, 2018) and intersects three secondary watersheds:

- Northeastern Lake Superior;
- Missinaibi River and Mattagami River; and
- Abitibi River.

The Northeastern Lake Superior watershed is part of the Great Lakes – St. Lawrence Basin and encompasses the western portion of the PSA (Routes A1 and A2). The watercourses and waterbodies within this secondary watershed ultimately flow into Lake Superior to the west.

Most of the PSA is within the Missinaibi River and Mattagami River watershed which is part of the Hudson – James Bay Basin. This secondary watershed extends from west of the Township of Chapleau to the east side of the City of Timmins. Water features within the watershed flow either north towards James Bay or west towards Lake Superior.

The eastern-most portion of the PSA (Routes C1 and C2), on the east side of Timmins, is within the Abitibi River watershed. This secondary watershed is also part of the Hudson – James Bay Basin (**Appendix C-4**).

The assessed survey locations were determined to be direct fish habitat based on the lack of physical barriers, presence of flow and results of the environmental Deoxyribonucleic Acid (eDNA) metabarcoding analysis.

4.6.3.1. Topography

The topography across the PSA is characterized by a vast, glaciated plateau of rugged hills, exposed Precambrian bedrock, and lakes. General sloping is observed towards watercourse systems and surface drainage features. In general, surface flow from watercourses flows either west towards Lake Superior or north towards James Bay within the three tertiary watersheds (i.e., Northeastern Lake Superior, Missinaibi River, and Mattagami River) (MNR, 2026b). Surface flow within the PSA is generally directed towards the major watercourses and watercourse systems.

Within the western sections of the PSA, surface flows are directed towards the Michipicoten River, Anjigami Lake, Whitefish Lake, and the Windermere Goldie Lake Complex within The Shoals Provincial Park, before eventually pouring into Lake Superior (MNR, 2026b). Surface flows in the central portion of the PSA, near the Township of Chapleau, are directed towards Borden Lake, Ivanhoe Lake, and many other smaller watercourses before eventually pouring into either Lake Superior or James Bay (MNR, 2026b). Surface flows in the southern portions of the PSA are collected by several watercourses including Groundhog River, the Dana-Jowsey Lakes, and Kenogamissi Lake before eventually reaching James Bay (MNR, 2026b).

4.6.3.2. Water quality monitoring

There are two active Provincial Water Quality Monitoring Network (PWQMN) stations within the vicinity of the PSA. PWQMN stations for Porcupine River (No. 19006404502), and Mattagami River (No. 19006401420) are located approximately 3.3 km east from the PSA of Routes C1 and C2, and 4 km north from the PSA of Route C1, respectively. The two PWQMN stations were mapped in MECP available background source protection data (MECP, 2026b). The PWQMN stations were last surveyed in 2022 for

Phosphorus, Nitrates, Suspended Solids, and Chloride. Mattagami River Conservation Authority does not publish annual watershed report cards with information on water quality measurements.

4.6.4. Groundwater resources

Groundwater resources were evaluated within the PSA of the alternative routes to capture potential effects on groundwater resources from the Project. Well records mapped for the province of Ontario were reviewed to determine potential impacts to groundwater resources.

The background review determined that 15 water wells are located within the extent of the PSA of alternative routes. The locations of these well records are illustrated in **Figure 4-8**. Water wells with completion dates after the year 2000 were chosen within the PSA to identify the approximate ground water and overburden depths for areas associated with the alternative routes. A summary of the water wells selected for review is provided in **Table 4-7**.

Locations of natural springs were shared with Hydro One as part of community Values mapping received through consultation with Indigenous communities. One natural spring was identified within the LSA, approximately 140 m north of Routes A1 and A2. The locations of community Values are confidential.

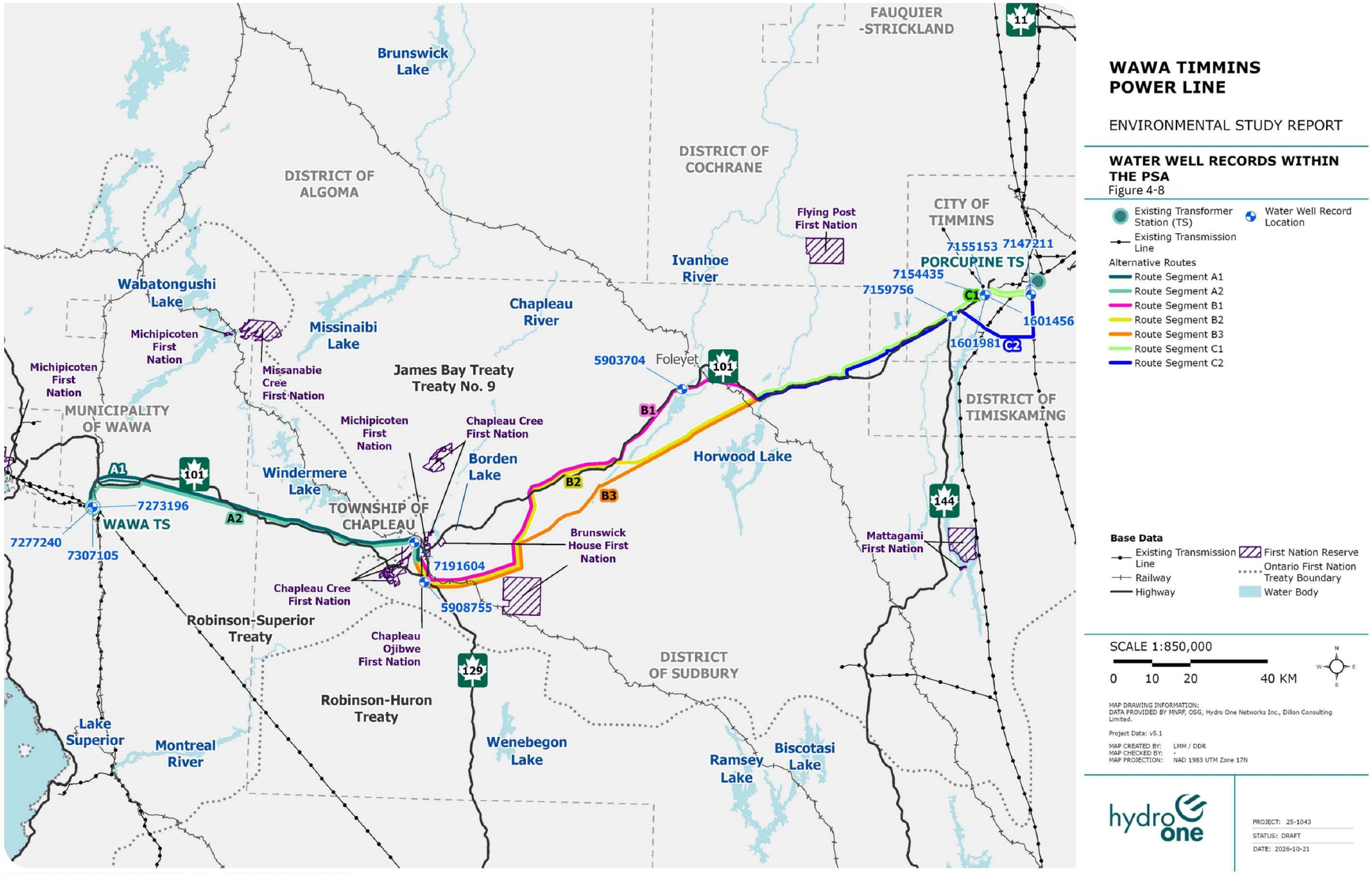
Table 4-7: Water well records selected for review within the PSA

Note: Not applicable (N/A) indicates the information is not provided in the water well database.

Well ID	Associated alternative route(s)	Date complete	UTM Zone 17 CSRS – easting (m)	UTM Zone 17 CSRS – northing (m)	Depth to water (m)	Formation material
5908755	B1, B2, B3	10/17/2006	-83.387547	47.740407	N/A	N/A
7147211	C1, C2	6/23/2010	-81.294848	48.446241	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.29549	48.440284	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.292902	48.437034	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.293186	48.434586	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.295476	48.440284	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.292916	48.437034	N/A	Sand, Sandy
7147211	C1, C2	6/23/2010	-81.293172	48.434586	N/A	Sand, Sandy
7154435	C1	11/15/2010	-81.454619	48.432622	N/A	Clay, Topsoil, Loose
7155153	C1	11/25/2010	-81.454646	48.432622	N/A	Clay, Topsoil, Loose
7159756	C1, C2	2/28/2011	-81.568645	48.383425	N/A	Silt, Sand, Gravel
7191604	A1, A2	11/15/2012	-83.425873	47.83161	11	Topsoil
7273196	A1, A2	10/17/2016	-84.544098	47.884547	N/A	Sand
7277240	A1, A2	12/16/2016	-84.543897	47.885704	N/A	N/A
7307105	A1, A2	3/12/2018	-84.545142	47.885676	N/A	N/A

Source: MECP, 2024

Figure 4-8: Water well records selected for review within the PSA



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

WATER WELL RECORDS WITHIN THE PSA
Figure 4-8

- Existing Transformer Station (TS)
- Water Well Record Location
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Base Data
- Existing Transmission Line
- First Nation Reserve
- Railway
- Ontario First Nation Treaty Boundary
- Highway
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-21

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR10_CH04_WaterWell

Based on the well records reviewed, groundwater is typically found within 11 m of the ground surface, below a thick layer of bedrock.

No municipal drinking water supplies were identified within the PSA. Surface water in the PSA has been mapped by the MECP as having a low vulnerability index (Vulnerability Score: 2) (MECP, 2026b). Surface water 0.5 km north of the LSA of Route C1 has been mapped by the MECP as having a high vulnerability index (Vulnerability Score: 9) (MECP, 2026b).

4.6.5. Source water protection

The *Clean Water Act*, 2006 outlines requirements for protecting existing and future drinking water sources, including the development and implementation of Source Protection Plans (SPPs). SPPs provide a policy framework for protecting source water by addressing the Prescribed Drinking Water Threats (PDWTs) within geographic areas called SPAs.

The Mattagami Region Source Protection Plan (Mattagami Region SPP) includes the PSA of portions of Routes C1 and C2. The remainder of Routes C1 and C2, as well as the other alternative routes, are not within a SPA.

The Mattagami Region SPP (2019) was reviewed to identify constraints or policies relevant to the Project. Three municipal drinking water IPZs are described in the SPP, as follows:

- IPZ 1: “the area immediately adjacent to the intake;”
- IPZ 2: “the area further upstream where a spill might reach the intake before the plant operator could deal with it;” and
- IPZ 3: “a larger part of the upstream watershed.”

Significant drinking water threats, and associated restrictions or policies, are limited to IPZ 1 and 2 as identified in the Mattagami Region SPP (2019). Routes C1 and C2 are not within either of these zones; at its nearest, Route C1 is approximately 1.2 km south of IPZ 2.

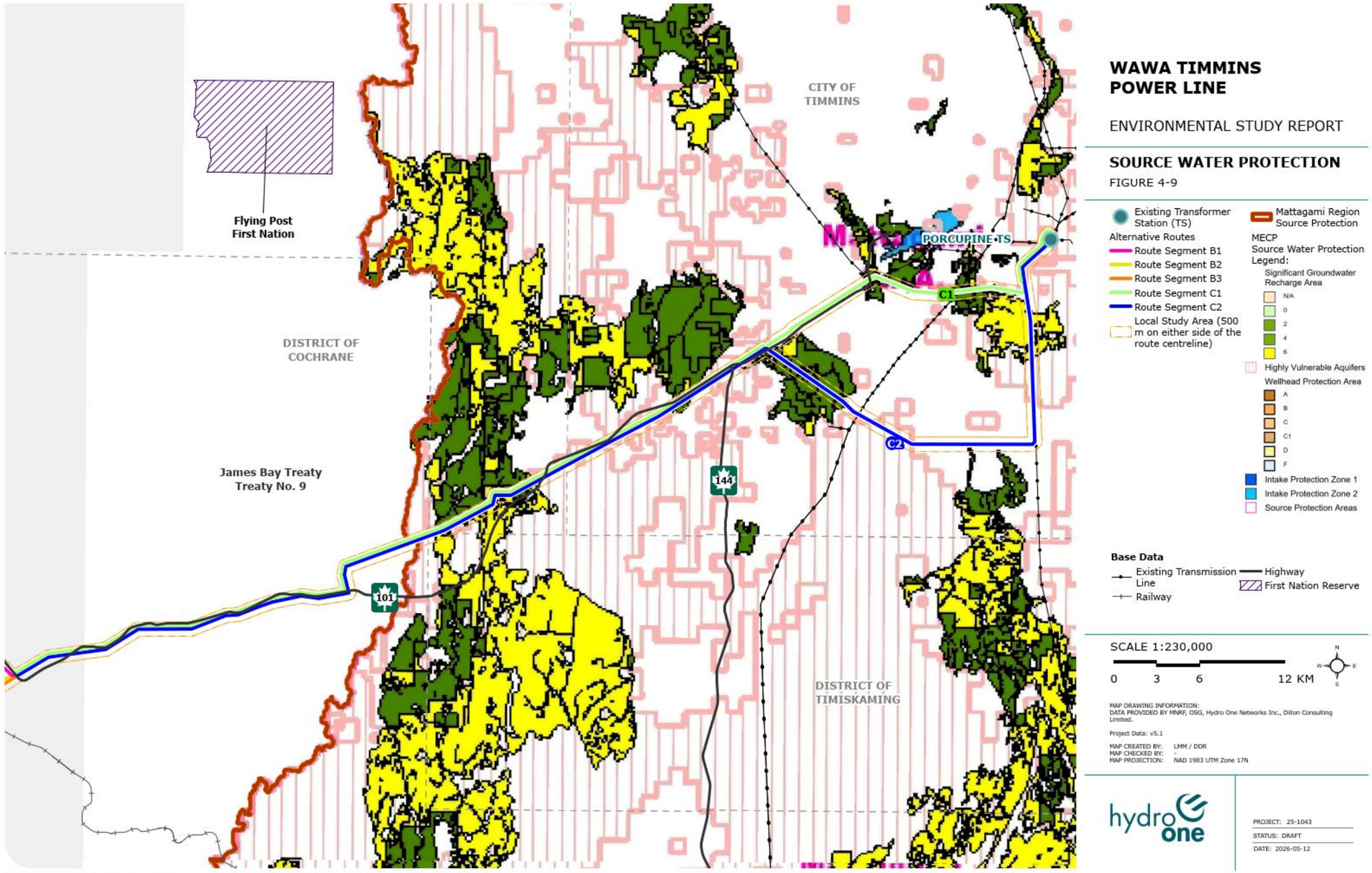
The PSA of Routes C1 and C2 extends through SGRAs, HVAs, and IPZ 3, as mapped in the Source Protection Information Atlas (MECP, 2026b). Mapping from the Source

Protection Information Atlas is provided in **Figure 4-9** (note: IPZ 3 is not visible at the map scale). The Mattagami Region SPP (2019) defines SGRAs and HVAs as follows:

- SGRA: The area where rain or snow seeps into the ground and flows to an aquifer is called a recharge area. Recharge areas tend to be areas that are characterized by permeable soils, such as sand or gravel that allow the water to seep easily into the ground. A recharge area is considered significant when it helps maintain the water level in an aquifer that supplies a community with drinking water or supplies groundwater recharge to a cold-water ecosystem that is dependent on this recharge to maintain its ecological function.
- HVA: An aquifer that can be easily changed or affected by contamination from both human activities and natural processes as a result of its intrinsic susceptibility, as a function of the thickness and permeability of overlaying layers, or by preferential pathways to the aquifer.

The Mattagami Region SPP (2019) does not identify significant threat circumstances within SGRAs, HVAs, or IPZ 3. Therefore, the SPP does not include restrictions or policies that apply to the Project.

Figure 4-9: Source water protection areas



4.6.6. 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, and aesthetic features and functions that are highly valued. Designated or special natural areas identified within the PSA are outlined below.

4.6.6.1. Areas of natural and scientific interest

ANSIs are lands and waters officially designated by the province that have geological or ecological features which are important and valued for natural heritage protection, appreciation, scientific study, or education. No ANSIs were identified within the PSA and as such, no ANSIs are associated with any of the alternative routes.

4.6.6.2. Important bird areas

In Canada, Important Bird Areas (IBAs) complement (and often overlap partially or entirely with) other national, provincial, and local conservation designations such as national and provincial parks, migratory bird sanctuaries, national wildlife areas, Crown conservation reserve lands, and ecological reserves. IBAs represent areas on the land that are considered crucial for bird conservation efforts. Indigenous communities have identified the importance of conservation efforts regarding birds and waterfowl to carry out traditional practices related to hunting. No IBAs were identified within the PSA and as such, no IBAs are associated with any of the alternative routes.

4.6.6.3. Lake trout lakes

The MNR identifies inland lakes with cold, well-oxygenated water suitable for supporting native or introduced lake trout (*Salvelinus namaycush*) populations. These lakes are referred to as lakes for trout management, or lake trout lakes. Based on a review of MNR-designated lake trout lakes, the LSA of Routes A1 and A2 intersects Kinniwabi Lake and Anjigami Lake.

4.6.6.4. Historical fish stocking

White Fish Lake and Kinniwabi Lake are waterbodies that intersect with Routes A1 and A2 and have been historically stocked with the following species:

- Brook trout (Salvelinus fontinalis);
- Lake trout (Salvelinus namaycush); and
- Walleye (Sander vitreus).

4.6.6.5. Fish activity areas

Fish activity areas identified and regulated by the MNR are mapped in the PSA and are associated with Routes A1, A2, and B1. Specifically, this mapping identifies walleye spawning habitat in Wangoon Lake, White Duck Lake, and Boulder Lake, respectively.

4.6.6.6. Enhanced management areas

The CLUPA (MNR, 2026a) identifies EMAs as specialized Crown land designations designed to protect specific natural heritage, recreational, or cultural values while permitting or enhancing designated activities. One EMA, the Tikamaganda Recreation Access Area, intersects with the PSA associated with Routes A1 and A2 (**Figure 4-3**). The CLUPA Policy Report for this area (MNR, 2016a) notes the overall land use intent for this area is to:

- Enhance and maintain the natural and recreational values of the area; and
- Promote and enhance opportunities for diverse recreational activities, with priority given to activities that promote well planned access for recreational activities, community connectivity, and improved resource use in the area.

4.6.6.7. Conservation reserves

Conservation reserves protect significant natural and cultural features while providing opportunities for a variety of compatible traditional activities (i.e., fishing, hunting, trapping). They are also key areas for scientific research and environmental monitoring. Four conservation reserves, as identified by the CLUPA (MNR, 2026a), were identified in the PSA. Conservation reserves are associated with all alternative routes, as listed below:

- Windermere Goldie Lake Complex Conservation Reserve (Routes A1, and A2);

- Ivanhoe River Clay Plain Conservation Reserve (Route B1);
- Vimy Lake Uplands Conservation Reserve (Routes B1, B2, B3, C1, and C2); and
- Tetachikapika River Plain Conservation Reserve (Routes C1, and C2).

Conservation reserves in Ontario are primarily regulated by the MECP and are managed through Ontario Parks under the authority of the *Provincial Parks and Conservation Reserves Act*, 2006, which aims to protect natural/cultural heritage, biodiversity, and scientific research.

4.6.6.8. Provincial parks

Provincial parks protect significant natural and cultural features in Ontario while supporting the economy. They are important for outdoor recreation, scientific research, environmental monitoring and education. Four provincial parks are identified in the PSA and are associated with all alternative routes, as listed below:

- The Shoals Provincial Park (Routes A1, and A2);
- Ivanhoe Lake Provincial Park (Routes B1, B2, and B3);
- Dana-Jowsey Lakes Provincial Park (Routes C1 and C2); and
- Groundhog River Waterway Provincial Park (Routes C1 and C2).

Provincial parks in Ontario are also primarily regulated by the MECP and are managed through Ontario Parks under the authority of the *Provincial Parks and Conservation Reserves Act*, 2006.

4.6.7. Natural heritage features

Most of the PSA is situated in Ecoregion 3E, Lake Abitibi, and a small portion in the west overlaps with Ecoregion 4E, Lake Temagami. The PPS (Section 4.1) highlights the importance of the protecting the following natural heritage features in Ecoregion 3E and Ecoregion 4E:

- Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E, and 7E;
- Fish habitat (development and site alteration are permitted in accordance with provincial and federal requirements);
- Significant ANSIs;

- Habitat of endangered species and threatened species (development and site alteration are permitted in accordance with provincial and federal requirements); and
- SWH.

The PPS identifies these natural heritage features and areas as important for their environmental and social values as a legacy of the natural landscapes of an area.

The key natural heritage features that are defined in the PPS are considered below. Information on natural heritage features was collected from the following sources:

- Protected Species in Ontario List under *O. Reg. 60/26* under the SCA (SCA, 2025);
- SARA (SARA, 2002) database;
- *Invasive Species Act* (2015) *O.Reg 354/16* (General);
- Natural Heritage Information Centre (NHIC) database (MNR, 2026c);
- Land Information Ontario (LIO) (MNR, 2026d);
- Natural Heritage Reference Manual (MNR, 2010);
- Significant Wildlife Habitat Technical Guide (SWHTG) (MNR, 2000);
- SWH Ecoregion 3E Criterion Schedules (MNR, 2015);
- Township of Chapleau OP (2013);
- City of Timmins OP (2010);
- CLUPA (MNR, 2026a);
- DFO Aquatic SAR Mapping Tool (DFO, 2025);
- Ontario Breeding Birds Atlas (Cadman et al., 2008);
- Christmas Bird Count (Birds Canada, 2021);
- Ontario Butterfly Atlas (Toronto Entomologists Association, 2021);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2026);
- Dragonfly and Damselfly (Odonata) Guide, (Ontario Nature, 2017);
- Mammals of the Western Hemisphere (Patterson et al., 2007);
- IBAs – online data (Birds Canada, 2026);
- Early Detection Distribution Mapping System (University of Georgia, 2026);
- Aerial imagery; and
- Ontario Base Map.

As noted in **Section 4.6**, ecological field surveys were completed along the road ROW, or on lands that were publicly accessible. Ecological field surveys were carried out between April 2025 and February 2026. A summary of the ecological field survey results is provided below. Further details including survey locations are provided in **Appendix C-3**.

4.6.7.1. Vegetation community mapping

Vegetation communities were mapped using a combination of aerial imagery and available online databases (i.e., Forest Resource Inventory and Ontario Land Cover mapping) and were subsequently verified in the field. A botanical survey was also conducted to verify ecosite community types and provide confirmation of the presence of culturally significant plants identified by local Indigenous communities. Vascular plant identification also supported the identification of SAR vegetation as well as rare plant species across the landscape. Ecosite mapping was used to further characterize ecosite types of wetlands (marsh, swamp, bog, fen etc.), forest (coniferous, decisions, mixed), and disturbed areas.

Due to the scale of the Project, a representative survey sample was completed across the alternative routes to provide survey representation to ground-verify the ecosite types presence and overall accuracy of the MNR FRI (MNR, 2017) data. Ecosites were classified using the Ecosites of Ontario (Banton et al., 2009).

A total of 165 vegetation surveys were conducted across 29 ecosites to validate the information obtained from the FRI datasets from the Algoma Forest, Missinaibi Forest, Pineland Forest, Gordon Cosens Forest, Romeo-Malette Forest, and Abitibi River Forest. The additional 32 ecosites identified by the FRI database in the LSA were not surveyed because they were inaccessible, disturbed, or represented less than 0.05% of the total area of the LSA. Surveyors systematically walked through the survey plots in a meandering fashion and recorded lists of the tree, shrub, and herbaceous species encountered. Species nomenclature for plants recorded were based on the Ontario Plant List (Newmaster et al., 1998) with updates from the Flora Ontario – Integrated Botanical Information System (Newmaster at al., 2012). Recorded plants were compiled into a comprehensive list, including the following information:

- Season of documentation (e.g., spring, summer, or fall);

- S-Rank;
- Provincial and federal status;
- CC values (i.e., indicator to a species'/vegetation community's sensitivity or native dominance); and
- Wetness index (i.e., reflects a species' moisture preference).

During the vegetation surveys, 98 of the 163 sites were classified as a different ecosite than what was identified by the FRI data. Eight new ecosites not described in the FRI data for the LSA were also identified, bringing the final number of surveyed ecosites represented in the LSA to 37. Based on the results of the ecological field surveys and extrapolated data from the FRI data, a total of 62 unique ecosites are identified in the LSA. The LSA is dominated by upland tree communities (62 percent land cover in the LSA) including jack pine-black spruce dominated, pine-black spruce conifer, and aspen-birch hardwood stands. Wetland ecosites represent less than 4 percent of the total composition on average, and the remaining 34 percent of the LSA is comprised of various upland ecosites.

Of the 62 unique ecosites identified in the LSA, 55 are identified in the PSA. The composition of natural vegetation and cultural communities identified within the PSA per alternative route, as well as the total area (in ha) within the ROW of each alternative route, are listed in **Table 4-8**.

Table 4-8: Vegetation communities identified by FRI within the PSA in hectares (ha)

Note: "---" indicates no value

Ecosite code	Vegetation community	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
B007	Active mineral barren	1.1	1.1	8.9	0.7	---	5.0	4.8
B010	Very shallow, dry to fresh: pine - black spruce conifer	---	---	---	2.4	2.4	215.2	230.1
B012	Very shallow, dry to fresh: aspen - birch hardwood	---	---	---	9.5	10.8	---	---
B016	Dry, Sandy: Red Pine - white pine conifer	---	---	---	---	5.7	4.4	4.4
B034	Dry, Sandy: jack pine - black spruce dominated	85.8	85.8	84.1	80.5	67.3	8.8	12.2
B035	Dry, sandy: pine - black spruce conifer	22.8	22.8	219.3	283.5	290.4	5.7	5.6
B036	Dry, sandy: cedar - hemlock conifer	---	---	---	---	---	---	---
B037	Dry, sandy: spruce - fir conifer	18.9	18.9	0.3	30.2	32.4	2.3	2.3
B040	Dry, sandy: red pine - white pine mixedwood	12.5	12.5	113.1	118.2	127.0	13.8	13.8
B048	Dry, sandy: aspen - birch hardwood	---	---	24.1	23.7	6.9	---	---
B049	Dry to fresh, coarse: field	114.6	114.6	96.3	120.5	188.2	44.8	46.5
B050	Dry to fresh, coarse: shrub	313.7	318.2	214.5	273.4	308.1	290.4	389.1
B051	Dry to fresh, coarse: red pine - white pine conifer		---	17.3	12.3	---	---	---
B052	Dry to fresh, coarse: jack pine - black spruce dominated	162.8	161.6	99.0	113.4	61.0	0.1	---

Ecosite code	Vegetation community	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
B053	Dry to fresh, coarse: pine - black spruce conifer	---	---	2.8	---	---	---	---
B054	Dry to fresh, coarse: cedar - hemlock conifer	6.0	6.0	---	---	---	---	---
B055	Dry to fresh, coarse: spruce - fir conifer	852.0	825.7	801.4	758.6	801.4	323.6	287.6
B058	Dry to fresh, coarse: conifer	32.7	57.9	0.0	0.0	0.0	---	---
B059	Dry to fresh, coarse: red pine - white pine mixedwood	---	---	7.9	34.6	34.6	183.7	221.9
B065	Dry to fresh, coarse: Aspen - birch hardwood	61.4	93.7	216.9	116.4	133.8	36.3	35.2
B066	Dry to fresh, coarse: maple hardwood	1.4	1.4	36.7	41.8	19.6	---	---
B067	Dry to fresh, coarse: mixedwood	14.6	11.1	31.5	36.8	24.2	---	---
B068	Moist, coarse: pine - black spruce conifer	---	---	20.1	19.0	19.9	---	---
B070	Moist, coarse: hemlock - cedar conifer	53.4	46.3	26.4	13.5	35.7	45.1	43.5
B071	Moist, coarse: spruce - fir conifer	---	---	3.0	---	---	---	---
B074	Moist, coarse: conifer	6.2	6.2	---	---	---	---	---
B097	Moist, coarse: aspen - birch hardwood	---	---	---	---	---	---	---
B098	Moist, coarse: elm - ash hardwood	---	---	2.0	---	---	---	---
B099	Moist, coarse: red maple hardwood	0.2	0.2	12.9	6.5	6.5	---	---
B100	Fresh, silty to fine loamy: red pine - white pine conifer	---	---	---	4.4	4.4	---	---
B101	Fresh, silty to fine loamy: jack pine - black spruce dominated	9.5	9.5	34.8	15.3	15.3	---	---

Ecosite code	Vegetation community	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
B104	Fresh, silty to fine loamy: pine - black spruce conifer	---	---	92.9	10.2	10.2	22.8	22.8
B114	Fresh, silty to fine loamy: hemlock - cedar conifer	---	---	6.6	---	---	34.9	34.9
B116	Fresh, silty to fine loamy: aspen - birch hardwood	---	---	---	26.4	26.4	---	---
B119	Moist, fine: pine - black spruce conifer	---	---	9.9	4.6	4.6	35.9	35.9
B126	Moist, fine: hemlock - cedar conifer	---	---	---	4.1	4.1	3.8	8.8
B127	Moist, fine: spruce - fir conifer	15.6	15.6	52.6	52.6	4.8	3.6	3.6
B128	Moist, fine: aspen - birch hardwood	31.8	29.1	326.3	257.8	165.2	521.6	593.1
B129	Treed bog	4.6	4.6	250.4	177.8	103.9	16.6	16.6
B133	Poor conifer swamp	---	---	0.9	1.2	1.2	19.1	29.9
B134	Intermediate conifer swamp	---	---	---	0.8	0.8	23.1	32.5
B135	Rich conifer swamp	18.8	20.6	32.3	33.0	36.6	11.0	11.3
B136	Hardwood swamp	41.8	40.6	20.9	24.4	28.2	21.7	65.5
B139	Sparse treed bog	17.7	17.7	11.2	10.9	7.3	1.3	1.3
B140	Open bog	6.8	4.4	5.9	4.9	3.9	0.2	0.2
B142	Poor fen	41.0	45.0	37.8	27.1	28.8	3.8	3.9
B146	Open moderately rich fen	2.4	0.3	9.5	25.0	19.7	---	---
B164	Cliff	1.1	1.1	---	---	---	---	---
B165	Rock barren	---	---	---	---	---	---	0.3
B193	Active coarse clean fill	---	---	2.0	2.0	---	13.9	13.9

Ecosite code	Vegetation community	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
B197	Pavement/concrete	78.8	77.3	18.2	15.2	26.7	77.0	41.7
B223	Mineral intermediate conifer swamp	7.3	7.3	4.0	---	---	---	---
B224	Mineral rich conifer swamp	---	---	5.5	5.5	---	---	---
U997-999	Infrastructure ROWs	258.6	227.0	1.8	1.8	5.0	40.4	88.5
Water	Water	60.7	58.3	47.0	26.0	20.1	36.2	41.8
	Total area (ha)	**2356.5**	**2342.3**	**3009.1**	**2826.7**	**2693.1**	**2066.2**	**2343.5**

4.6.7.2. Botanical assessment

A total of 314 unique plant species were recorded in the PSA during the vegetation surveys. Species observed were found to be representative of the boreal forest. Of the 314 species identified to the species level, 115 have a CC value of 7 or greater (on a scale of 1-10), indicating these species are sensitive to disturbance or are an indicator of a system with high ecosystem value.

Of the 314 species, 276 are listed as native species considered Secure (SRank of S5) or Apparently Secure (SRank of S4) in Ontario, and 37 species were unranked (SU or SNA). The vegetation surveys and desktop background review documented the presence of black ash (*Fraxinus nigra*) in the overstory of several stands within the LSA. One provincially tracked species, the slender spikerush (*Eleocharis nitida;* S-Rank- S2?: Imperiled) was observed during the ecological field surveys (as shown in **Appendix C-3**, Figure 374). The species observation is beyond the limits of the ROW but within the LSA. No other SAR or provincially tracked plant species were observed in the PSA. Species of Conservation Concern (SCC) and SAR are discussed further in **Section 4.6.7.6** and **Section 4.6.7.7**.

4.6.7.3. Wetlands

Wetland community types observed within the PSA consisted of bog, fen, marsh, and both deciduous and coniferous swamps. These wetland community types were commonly observed to be interconnected as part of wetland complex systems. Fens, marshes and swamps were associated with the PSA of all alternative routes. Bogs were associated with alternative routes B2, B3, C1, and C2.

MNR-identified wetlands are associated with all alternative routes including one Provincially Significant Wetland (PSW) associated with Route B1: Ivanhoe Lake Wetland.

4.6.7.4. Aquatic and fish habitat

A total of 50 aquatic survey locations were assessed during the 2025 field program. Aquatic assessment stations were selected based on thermal regime, permanence, and potential to support fish habitat. Cold-water, permanent and fish bearing features were

prioritized for assessment. All watercourses assessed have a permanent flow regime and potential to provide habitat for fish.

Aquatic habitat assessments were distributed across these watersheds as follows:

- Nine aquatic habitat assessments were completed within the Northeastern Lake Superior watershed;
- 39 aquatic habitat assessments were completed within the Missinaibi River and Mattagami River watershed; and
- Two aquatic habitat assessments were completed within the Abitibi watershed.

The assessed survey locations were determined to be direct fish habitat based on presence of flow, connectivity and the results of the eDNA metabarcoding analysis.

Substrates observed in association with surface aquatic features across all alternative routes consisted predominantly of silt, clay, and mud. Sand, cobble, gravel, and boulder substrates were also observed. Instream cover consisted of a range of overhanging vegetation, macrophytes, woody debris, with some boulders.

Indigenous communities have identified fishing practices as culturally important. Thirty watercourses and waterbodies were identified as having cultural/historical significance to Indigenous communities in the PSA, and are associated with Routes A1, A2, B1, B2, and B3.

Riparian habitat was contiguous and robust at all watercourse crossings except for areas where roads or existing hydro corridors are present. Riparian communities were predominantly coniferous forest, and some had wetland inclusions. In terms of aquatic and fish habitat, riparian areas can filter and absorb nutrients, sediment, and other contaminants from entering the systems. These areas also provide shade and impact water temperatures, as well as provide cover and support the aquatic food cycle. Riparian areas also have the potential to function as wildlife corridors, cover, and a source of food for various wildlife. It is also acknowledged that riparian areas support a variety of traditional plant species used for harvesting and medicinal purposes while also contributing to the cultural continuity of Indigenous communities.

Further details regarding fish habitat observations for each alternative route are provided below, and are shown in **Appendix C-3**, Figures 452 to 463:

- **Route A1**: Aquatic features associated with 12 aquatic survey stations along Route A1 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. Of these 12 features, potential critical habitat was identified at two (WTX_15 and WTX_17). Migratory obstructions were observed at one aquatic feature (WTX_20);
- **Route A2** (same findings as Route A1): Aquatic features associated with 12 aquatic survey stations along Route A2 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. Of these 12 features, potential critical habitat was identified at two (WTX_15 and WTX_17). Migratory obstructions were observed at one aquatic feature (WTX_20);
- **Route B1**: Aquatic features associated with nine aquatic survey stations along Route B1 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. No critical habitat for fish was identified. Migratory obstructions were observed at two aquatic features (eDNA_19 and WTX_01) as a result of beaver activity;
- **Route B2**: Aquatic features associated with six aquatic survey stations along Route B2 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. No critical habitat for fish was identified. Similar to Route B2, migratory obstructions were observed at two aquatic features (eDNA_19 and WTX_01) as a result of beaver activity;
- **Route B3**: Aquatic features associated with one aquatic survey station along Route B3 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. No critical habitat for fish was identified. Migratory obstructions were not observed. One unidentified minnow species (*Cyprinid sp.*) was incidentally observed during assessments;

- **Route C1**: Aquatic features associated with 13 aquatic survey stations along Route C1 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. No critical habitat for fish was identified. Migratory obstructions were observed at two aquatic features (eDNA_13 and eDNA_22), including a beaver dam at eDNA_13;
- **Route C2** (same findings as Route C1): Aquatic features associated with 13 aquatic survey stations along Route C2 are anticipated to provide year-round direct fish habitat based on site-specific conditions, direct fish observations, and eDNA metabarcoding results. No critical habitat for fish was identified. Migratory obstructions were observed at two aquatic features (eDNA_13 and eDNA_22), including a beaver dam at eDNA_13; and
- **No associated route**: A total of 15 aquatic survey stations assessed during the 2025 field program were not associated with any of the alternative routes due to route refinements that occurred following completion of the field studies.

4.6.7.5. eDNA metabarcoding analysis

An eDNA aquatic sampling program was completed concurrent with the aquatic and fish habitat assessments to further characterize aquatic species and to augment background fish and mussel data for the surveyed watercourses in the PSA. In total, 50 eDNA samples were collected from aquatic survey stations at watercourses and analyzed for fish species. Sample analysis was completed by Nature Metrics through the application of metabarcoding for fishes (12S rRNA marker).

eDNA metabarcoding detected a total of 28 unique fish species native to Ontario. Two additional species were identified to the genus-level. Of these species, the conservation status of 26 species was identified as ‘Apparently Secure’ (SRank of S4) or ‘Secure’ (SRank of S5) in Ontario. One species, Atlantic salmon (*Salmo salar*), is not a suitable target for conservation activities due to the species being non-native to the province, a hybrid, or a long-distance migrant (SRank of SNA). One SCC, lake sturgeon (*Acipenser fulvescens*), is assigned a provincial ranking of ‘Vulnerable’ (SRank of S3). The Lake Sturgeon population within the PSA is part of the Southern Hudson Bay - James Bay population, listed as Special Concern under the federal SARA and provincial SCA.

Positive detections (i.e., 10 reads or greater) for lake sturgeon were documented at WTX_10 (18,610 reads accounting for 51.9 percent of the sample) and WTX_02 (10 reads accounting for 0.1 percent of the sample). The results for WTX_10 confirmed the presence of Lake Sturgeon within DFO mapped habitat (Mattagami River). WTX_02 was sampled in Wangoon Lake which was not identified as lake sturgeon habitat nor was it directly connected to lake sturgeon habitat based on DFO mapping. Given the low number of reads, WTX_02 has been identified as potential lake sturgeon habitat and further sampling will be completed at this location as part of the 2026 field studies to increase the replicates and minimize the potential of false positive results.

Ten fish species identified with false positives were omitted from the official list of fish species. Incidental wildlife captured through eDNA samples in the PSA include eight bird species, two amphibian species, and three mammal species all considered to be common and secure (SRank of S4 or S5) in Ontario.

4.6.7.6. Woodlands

Significant woodlands in Ecoregion 3E are defined by the MNR criteria based on size, proximity to other habitats, and ecological function. Under the PPS, significant woodlands are not independently protected in Ecoregion 3E unless associated with significant wetlands, SWHs, and/or ANSIs.

Woodlands that intersect the PSA were assessed for significance based on the significant woodland definitions within the City of Timmins OP (2010) and Township of Chapleau OP (2013) when overlapping with their respective jurisdictional boundaries. Based on review of the OP schedules pertaining to mapped natural heritage features, no significant woodlands are mapped by either of these OPs. In general, all woodlands in the PSA have potential to be significant per the OPs where they apply, due to potential to provide ecologically important features and functions for wildlife, wildlife movement corridors, and habitats of SAR and SCC.

Woodlands are mostly contiguous throughout the PSA and as such an inventory of individual woodlands intersecting the PSA was not completed. Woodlands with potential to be identified as significant according to the respective OPs intersect all alternative routes within their respective jurisdictions.

Outside of municipal jurisdiction, significant woodlands on Crown Land are identified by the MNR through the FRI and are identified as “Significant Ecological Areas,” identifying high-value woodlands, old-growth forests, and rare forest types. No Significant Ecological Areas were identified in the PSA based on MNR data.

The results of the vegetation surveys and community mapping show that upland tree communities dominate the LSA. Those communities include jack pine–black spruce dominated, pine-black spruce conifer, and aspen–birch hardwood stands. Together these communities represent roughly 62 percent of the land cover of the LSA.

4.6.7.7. Wildlife and significant wildlife habitat

It is acknowledged that wildlife play an important role for Indigenous communities to participate in hunting and trapping, which are a critical aspect of the way of life and culture for many Indigenous community members. Hunting and trapping practices support procurement of sustenance for community members. Within the LSA, typical game species include deer, moose, raccoon, mink, muskrat, waterfowl, and other game species which may be associated with SWH.

SCC are defined as:

- Species listed as Special Concern, Threatened, or Endangered under SARA;
- Species that are provincially rare/tracked (i.e., have a Sub-national (provincial) Rank of S1 – Critically Imperiled, S2 – Imperiled, or S3 – Vulnerable); and
- Species that are classified as Special Concern by the Committee on the Status of Species at Risk in Ontario.

As the Project is in Ecoregion 3E and partially in Ecoregion 4E, the presence of SWH was assessed according to the SWHTG (MNR, 2000), and the SWH Criteria Schedules for Ecoregion 3E (MNR, 2015). The SWHTG for Ecoregion 4E is currently in draft and as such, where the Project overlaps with it, SWH in Ecoregion 4E has been evaluated based on the Ecoregion 3E criteria.

Habitat types considered include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for SCC, and animal movement corridors. SWH identified within the PSA was Confirmed, identified as Candidate, or ruled out using criteria outlined in the following sources:

- Ontario Significant Wildlife Habitat Criteria Schedules for Ecoregion 3E (MNR, 2015);
- Habitat mapping reviewed from aerial imagery; and
- Information collected during the 2025 field studies.

Incidental observations of wildlife (including dens, tracks, scats, and other wildlife evidence) were recorded during the 2025 field studies. SWH is further discussed in the Natural Environment Existing Conditions Report (NWES, 2026) which is included in **Appendix C-3**.

Based on the results of the 2025 field program, the following 31 Candidate or Confirmed SWH and nine Rare Vegetation Communities were identified in the LSA:

Seasonal Concentration Areas of Animals

- Confirmed Moose Late Winter Areas (in LSA of all alternative routes);
- Candidate Bat Hibernacula (in LSA of all alternative routes);
- Candidate Bat Maternal Roosting Habitat (in LSA of all alternative routes);
- Candidate Turtle Wintering Area (in LSA of all alternative routes);
- Candidate Reptile Hibernaculum (in LSA of all alternative routes);
- Candidate Colonially-nesting Bird Breeding Habitat – Ground (Routes A1 and A2); and
- Candidate Colonially-nesting Bird Breeding Habitat – Trees/Shrubs (Routes A1, A2, B1, B2, and B3).

Specialized Habitat for Wildlife

- Candidate Waterfowl Nesting Areas (in LSA of all alternative routes);
- Candidate Turtle Nesting Areas (in LSA of all alternative routes);
- Candidate Amphibian Breeding Habitat – Wetland (in LSA of all alternative routes);

- Candidate Amphibian Breeding Habitat – Woodland (in LSA of all alternative routes);
- Confirmed Moose Aquatic Feeding Areas (in LSA of all alternative routes);
- Candidate Sharp-tailed Grouse Lek (Routes A1, A2, and C2);
- Confirmed Bald Eagle and Osprey Nesting Habitat (Routes B1, B2, B3, C1, and C2); and
- Candidate Mast Producing Areas (in LSA of all alternative routes).

Habitat for Species of Conservation Concern

- Candidate Marsh Breeding Bird Habitat (in LSA of all alternative routes);
- Candidate Early Successional Breeding Bird Habitat (in LSA of all alternative routes);
- Confirmed Special Concern and Rare Wildlife – black tern (Routes A1, A2, B1, B2, and B3);
- Confirmed Special Concern and Rare Wildlife – common nighthawk (Routes B1, B2, B3, C1, and C2);
- Confirmed Special Concern and Rare Wildlife – eastern wood-pewee (in LSA of all alternative routes);
- Confirmed Special Concern and Rare Wildlife – evening grosbeak (in LSA of all alternative routes);
- Candidate Special Concern and Rare Wildlife – horned grebe (in LSA of all alternative routes);
- Confirmed Special Concern and Rare Wildlife – olive-sided flycatcher (in LSA of all alternative routes);
- Candidate Special Concern and Rare Wildlife – rusty blackbird (in LSA of all alternative routes);
- Confirmed Special Concern and Rare Wildlife – lake sturgeon (in LSA of all alternative routes);
- Candidate Special Concern and Rare Wildlife – monarch (in LSA of all alternative routes);
- Candidate Special Concern and Rare Wildlife – yellow-banded bumble bee (in LSA of all alternative routes); and

- Candidate Special Concern and Rare Wildlife – midland painted turtle and snapping turtle (in LSA of all alternative routes).

Rare Vegetation Communities

- Confirmed Cliff and Talus Slopes (Routes A1 and A2);
- Confirmed Rare Tree Type – red and sugar maple (Routes A1, A2, B1, B2, and B3);
- Possible Rare Tree Type – elm (Routes B1, B2, B3, C1, and C2);
- Possible Rare Tree Type – oak (Routes B1, B2, B3, C1, and C2);
- Confirmed Rare Tree Type – black ash (Routes B1, B2, B3, C1, and C2);
- Confirmed Rare Tree Type – red and white pine (Routes A1, A2, B1, B2, and B3); and
- Candidate Rare Tree Type – yellow birch (in LSA of all alternative routes).

4.6.7.8. Species at risk

On March 30, 2026, the SCA and several implementing regulations came into force and the ESA was repealed. The SCA introduces new requirements for proceeding with activities that may adversely impact protected species and habitat.

The SCA narrows the habitat definition for SAR to focus primarily on the immediate area of a species' dwelling or resting place, such as a den or nest for animals or the critical root zone of vascular plants. In addition, the SCA introduced a new compliance framework in which activities that may impact SAR can generally proceed under a registration-first approach, with permits required only for specific, prescribed activities identified through regulation.

Federally, the SARA was adopted in 2002 by the Government of Canada to protect SAR and their habitat. The SARA applies to species listed as endangered and threatened under Schedule 1 of the Act on federal lands and/or aquatic species, as well as migratory birds listed under both the *Migratory Birds Convention Act* (MBCA), 1994, as well as Schedule 1 (as Endangered and/or Threatened) of the Act. Under SARA, species listed as Endangered and/or Threatened on Schedule 1 receive species protection (Section 32) and residence protection (Section 33). Critical Habitat is defined under Section 2 of SARA as "the habitat that is necessary for the survival or recovery of

a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species."

A desktop screening to identify potential SAR and SAR habitat within the LSA was completed in support of the Natural Environment Existing Conditions Report (NWES, 2026) for the Project. In total, 36 SAR were identified as having the potential to occur within general vicinity of the LSA based on background review.

Of the 36 SAR with the potential to occur in the LSA, 12 were directly observed during the 2025 field studies, including seven birds and five mammals. Of these 12 species, eight are listed as Threatened or Endangered at the provincial or federal level thus are discussed in the following subsections. The remaining four species are listed as special concern provincially and federally and are not afforded protection. These species are listed in **Section 4.6.7.7** with considerations under SWH for Special Concern and Rare Wildlife.

Areas of potential and confirmed SAR habitat are illustrated in **Appendix C-3**. Summaries of SAR and descriptions of suitable habitat for SAR listed provincially or federally as Threatened or Endangered are provided in the following subsections.

4.6.7.8.1. Bank swallow

Bank swallows (*Riparia riparia*) require near-vertical banks with sand-silt substrates in which they can excavate burrows to use as nests. Bank swallows are a migratory bird protected under the MBCA and listed as Threatened under Schedule 1 of the SARA. Under the SARA, bank swallow have one type of residence: the occupied burrow. These sites can be either natural (e.g., riverbanks, lakes, and ocean bluffs) or artificial (e.g., aggregate pits) in nature. One bank swallow nesting colony site was observed along Route C2 during the 2025 field program. The site was discovered after breeding activity had concluded for the season, so occupancy could not be confirmed. However, bank swallows display a high degree of fidelity towards nesting colonies, and a colony site must be documented as unused for five consecutive breeding seasons to no longer be considered SAR habitat (MNR, 2010).

4.6.7.8.2. Canada warbler

Canada warbler (*Cardellina canadensis*) occur in moist deciduous, coniferous or mixedwood forests with well-developed shrub layers and a structurally complex forest floor (Committee on the Status of Endangered Wildlife in Canada [COSEWIC], 2020). They nest near the ground in wet forested areas, often in dense ferns or fallen logs. All forested ecosites in the PSA (including forested wetlands) serve as potential nesting habitat. As Canada warbler are a migratory bird protected under the MBCA and listed as Threatened under Schedule 1 of the SARA, individuals and their residence are afforded protection. SARA defines a 'residence' as "a dwelling place, such as a den, nest or other similar area or place, which is occupied or habitually occupied by one or more individuals during all or part of their life cycle, including breeding, rearing, staging, wintering, feeding, or hibernating." Though Canada warbler do not have a species-specific definition for 'residence' under SARA, the nest as well as the tree or shrub the nest resides in would qualify as the residence of a Canada warbler based on the above definition. Potential Canada warbler nesting habitat is abundant in all routes of the LSA, and Canada warblers were observed along Routes A1 and A2.

4.6.7.8.3. Eastern whip-poor-will

Eastern whip-poor-wills (*Antrostomus vociferus*) are usually found in areas with a mix of open and forested habitats, such as savannahs, open woodlands, and mature forest stands (COSEWIC, 2022). They nest on the ground, typically on a bed of dead leaves in shaded areas that provide camouflage, depositing their eggs directly on the forest floor. As eastern whip-poor-will are a migratory bird protected under the MBCA and listed as Threatened under Schedule 1 of the SARA, individuals and their residence are afforded protection. SARA defines a 'residence' as "a dwelling place, such as a den, nest or other similar area or place, which is occupied or habitually occupied by one or more individuals during all or part of their life cycle, including breeding, rearing, staging, wintering, feeding, or hibernating." Though eastern whip-poor-will do not have a species-specific definition for 'residence' under SARA, the nest site and the immediate ground area containing the eggs or nestlings would qualify as the residence of an eastern whip-poor-will based on the above definition. As ground-nesters, they are particularly susceptible to nest-site disturbance. All forested ecosites (including forested

wetlands) serve as potential nesting habitat. Potential eastern whip-poor-will nesting habitat is abundant in all routes of the LSA, and eastern whip-poor-will were observed along Routes A1 and A2.

4.6.7.8.4. Migratory bats: eastern red bat, hoary bat, and silver-haired bat

All three migratory bat species (eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*)) will roost in deciduous, mixedwood and coniferous forests, with minor local preferences towards deciduous trees where they are abundant (COSEWIC, 2023). Hoary bat and eastern red bat roost among the foliage of trees, while the silver-haired bat roost under bark and in the cavities of trees like the habitats used by Myotis species. These bat species and their maternity roost or hibernacula are protected under the provincial SCA. Potential maternal roosting habitat is abundant in all routes of the LSA, and migratory bat SAR were documented with ultrasonic automated recording units (Wildlife Acoustics Sone Meter MiniBAT) along Routes A1, A2, B3, C1, and C2 during the 2025 field program.

4.6.7.8.5. Resident bats: little brown myotis, tri-colored bat

These species are generally associated with the boreal forest, and will roost in tree cavities, under loose bark and in human-made structures (COSEWIC, 2013). They will hibernate in large colonies in areas that remain humid and above freezing throughout the winter (e.g., caves and abandoned mines). These bat species and their maternity roost or hibernacula are protected under the provincial SCA, as well as under the federal SARA. Potential hibernation habitat was identified along the LSA of Routes C1 and C2 and potential roosting habitat is abundant in all routes of the LSA. Resident bat SAR were identified with ultrasonic automated recording units (Wildlife Acoustics Sone Meter MiniBAT) along Routes B3, C1, and C2 during the 2025 field program.

4.6.7.9. Non-native and invasive species

During vegetation community and botanical surveys throughout the PSA, minimal signs of disturbance by past and ongoing land use were observed. As a result, the PSA contained limited non-native species, which are not associated with conservation rankings. Of the 314 botanical species observed during survey, one plant species listed

in the *Invasive Species Act*, 2015 was observed during the vegetation surveys: spotted knapweed (*Centaurea stoebe*).

Three plants listed as noxious weeds in Ontario's *Weed Control Act*, 1990 were observed during the surveys, including bull thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), and spotted knapweed.

Physical site disturbance may increase the likelihood that non-native and/or invasive flora species will be introduced to the surrounding botanical communities. Invasive species can establish in disturbed sites more efficiently than native flora and can encroach into neighbouring undisturbed areas as well.

4.7. Recreational resources

There are several outdoor recreational areas within the general vicinity of the LSA, including conservation areas and provincial parks where walking and cycling trails are available. Additionally, the general Project area supports a robust recreational industry including lodges, camps, outdoor clubs, air tourism operators, and hunting and fishing operators, as discussed in **Section 4.4.2**.

Conservation reserves in the Project area, including the Tetachikapika River Plain and the Vimy Lake Uplands, are noted as prime areas for recreational activities such as hiking, biking, bird watching, and natural photography (MECP, 2016b; MECP, 2016c). Conservation reserves are intended to protect significant natural and cultural features while providing opportunities for compatible traditional activities (Ontario Parks, 2025).

The Ivanhoe Lake Provincial Park and The Shoals Provincial Park offer a variety of activities including camping, boating, cycling, canoeing, fishing, hiking, swimming, snowmobiling, and hunting (Ontario Parks, 2025). The Groundhog River Waterway provincial park and Dana-Jowsey Lakes Provincial Park offer hunting (Ontario Parks, 2025). Apart from Ivanhoe Lake Provincial Park, these provincial parks are identified as non-operating parks, meaning they have no dedicated staff and minimal or no facilities.

The Anjigami River Canoe Route extends through Anjigami Lake, which is within the LSA of Routes A1 and A2 but is not crossed by either of the routes. The canoe route travels east from Lake Superior along the Michipicoten River before connecting to the Anjigami River and travelling south to Mijinemunshing Lake (MNR, 2026e).

Porcupine Ski Runners is a volunteer-run, not for profit organization offering cross-country ski and snowshoe trails in the City of Timmins. Portions of their trails are located within the LSA of Routes C1 and C2 (MNR 2026b; Porcupine Ski Runners, 2026).

The Chapleau Ski Club is a volunteer-run, not-for-profit organization that provides downhill skiing, snowboarding, and cross-country skiing. The Chapleau Ski Club is operated out of the Township of Chapleau, approximately 1.4 km northeast of Routes A1 and A2 (Township of Chapleau, 2026a).

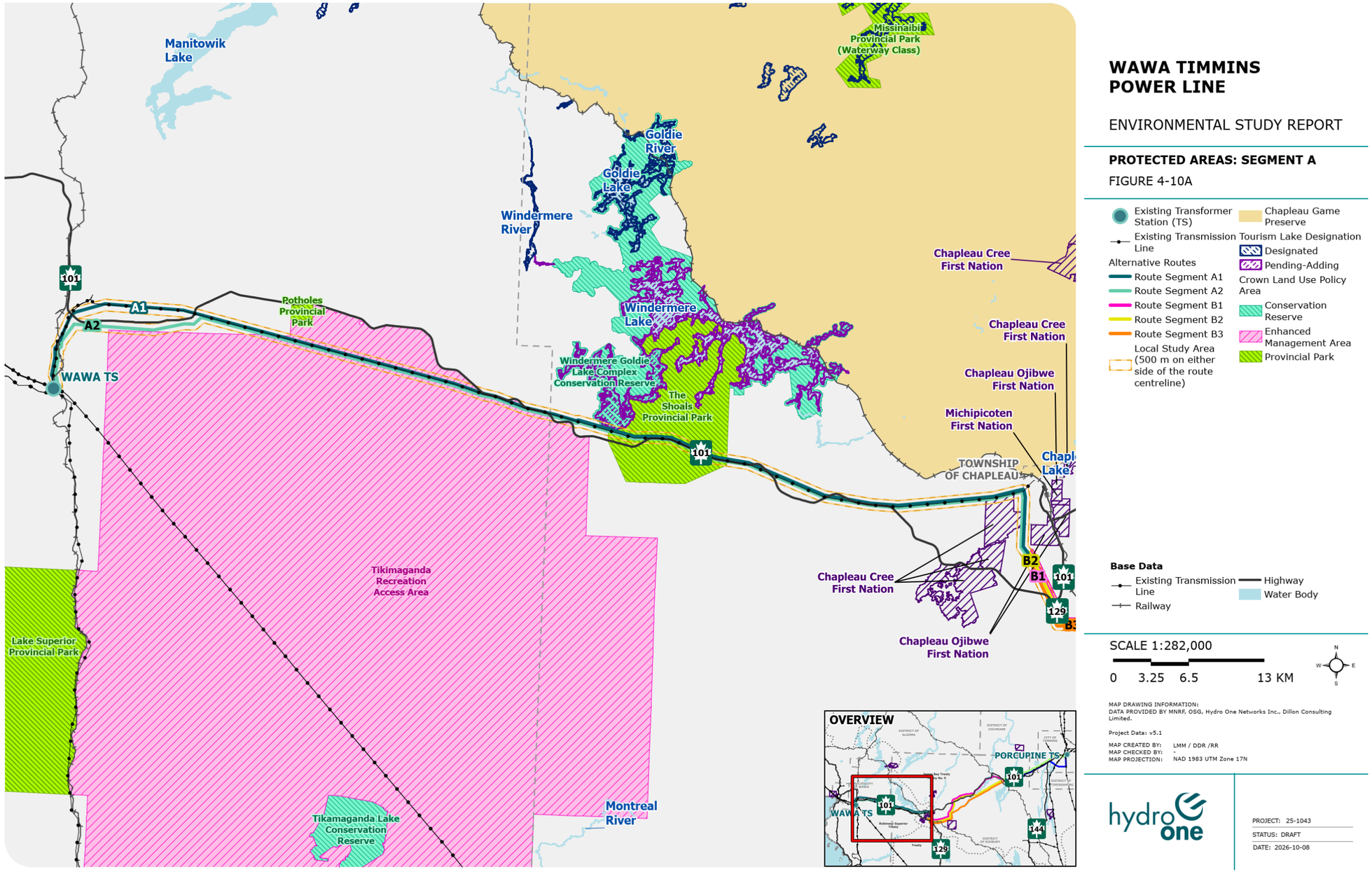
Snowmobiling is a popular wintertime recreational activity with several organizations in the general Project area, including the Wawa Snow Riders, the Chapleau Arctic Watershed Snowmobile Club, and the Timmins Snowmobile Club (Municipality of Wawa, 2021; Township of Chapleau, 2026b; City of Timmins, 2026). Permits to snowmobile are obtained from the Ontario Federation of Snowmobile Clubs (OFSC), which maintains an interactive trail guide outlining snowmobile trails in Ontario (OFSC, 2026). Mapped snowmobile trails intersect the PSA of all alternative routes.

The Chapleau Crown Game Preserve is the largest Crown game preserve in the world. Located approximately 1.4 km from Routes A1 and A2, abutting the Township of Chapleau to the north, it is a significant tourist attraction in the region. The preserve covers approximately 809,371 ha and features an array of wildlife including moose, black bears, wolves, lynx, beavers, bald eagles, and red foxes (Township of Chapleau, 2026c). Accommodations for the Chapleau Crown Game Preserve primarily consist of remote fly-in or train-in lodges centred around fishing and hunting. For example, Camp Lochalsh is located within the preserve, bounded on the south side by the CPKC railway, and additional cottages are located on nearby McLennan Lake (Loch Island Lodge & Camp Lochalsh, 2026). Camping is also available within the preserve, in Missinaibi Provincial Park.

The Trans Canada Trail is the longest multi-use recreational trail network in the world, spanning across Canada, and running for approximately 28,000 km. The Trans Canada Trail passes approximately 18 km west of Routes A1 and A2, near the Municipality of Wawa (Trans Canada Trail, 2026).

Protected areas where recreational activities are permitted, including designated remote tourism lakes, conservation reserves, provincial parks, and EMAs, are shown in **Figure 4-10**. A designated remote tourism lake is a land-use classification used to protect the environmental and aesthetic qualities essential for the resource-based tourism industry (MNR, 2016b). A forest reserve is an area where protection of natural heritage and special landscapes is a priority, but there is some pre-existing interest or tenure under the *Mining Act* or *Aggregate Resources Act*, and activities authorized under these Acts can continue to take place (MNR, 2021). EMAs, conservation reserves, and provincial parks are defined in **Section 4.6.6.6**, **Section 4.6.6.7**, and **Section 4.6.6.8**, respectively.

Figure 4-10A: Protected areas – Segment A



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

PROTECTED AREAS: SEGMENT A

FIGURE 4-10A

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Local Study Area (500 m on either side of the route centreline)

- Chapleau Game Preserve

Tourism Lake Designation
- Designated
- Pending-Adding

Crown Land Use Policy Area
- Conservation Reserve
- Enhanced Management Area
- Provincial Park

Base Data
- Existing Transmission Line
- Railway
- Highway
- Water Body

SCALE 1:282,000

0 3.25 6.5 13 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

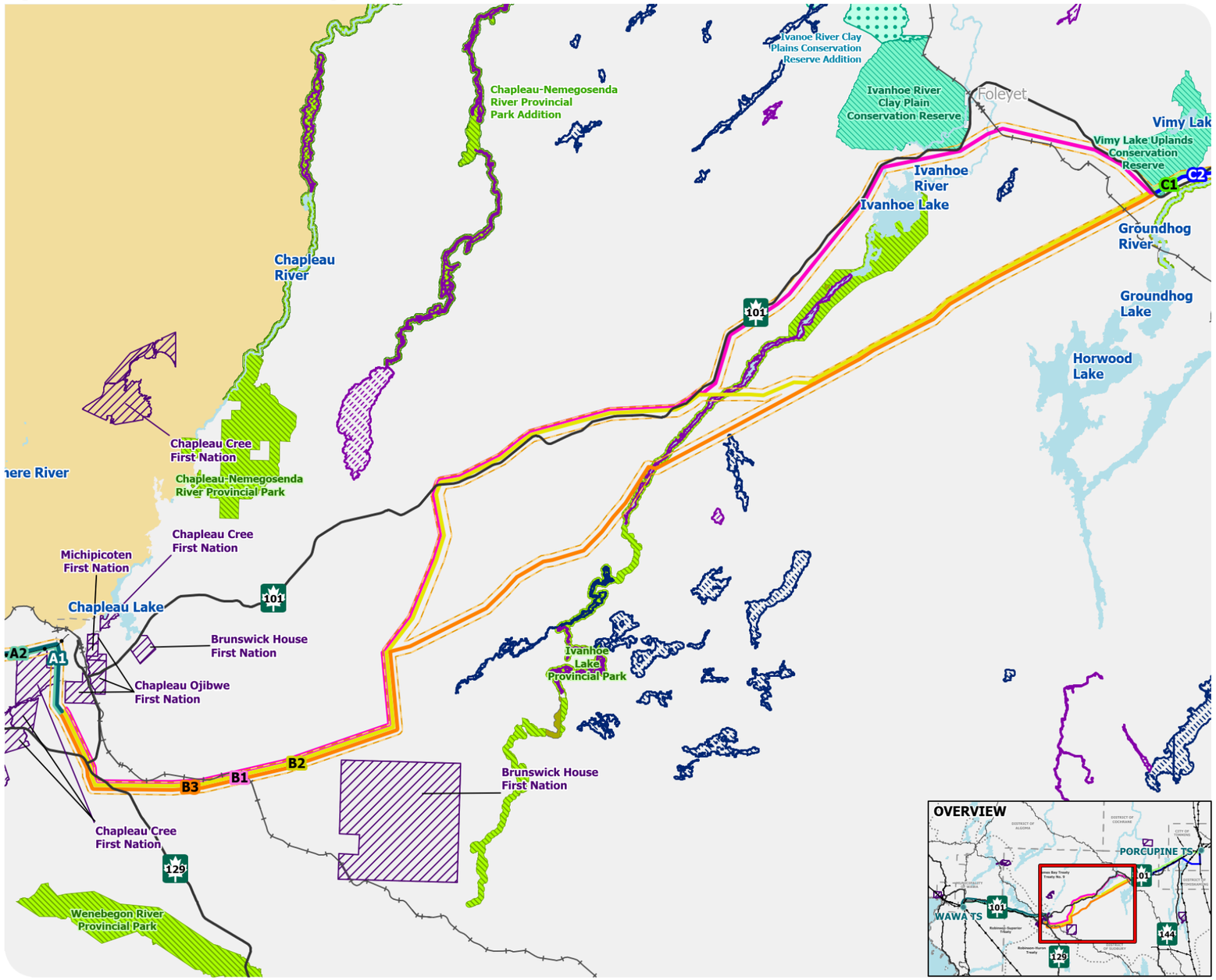
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MAP CREATED BY: LMM / DDR /RR
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MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
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Figure 4-10B: Protected areas – Segment B



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

PROTECTED AREAS: SEGMENT B

FIGURE 4-10B

- Existing Transmission Line
- Alternative Routes
  - Route Segment A1
  - Route Segment A2
  - Route Segment B1
  - Route Segment B2
  - Route Segment B3
  - Route Segment C1
  - Route Segment C2
- Local Study Area (500 m on either side of the route centreline)
- Chapleau Game Preserve
- Tourism Lake Designation
  - Designated
  - Pending-Adding
- Crown Land Use Policy Area
  - Conservation Reserve
  - Forest Reserve
  - Provincial Park
  - Recommended Conservation Reserve
  - Recommended Provincial Park

Base Data

- Existing Transmission Line
- Highway
- Railway
- Water Body

SCALE 1:299,000

0 3.5 7 14 KM

MAP DRAWING INFORMATION:
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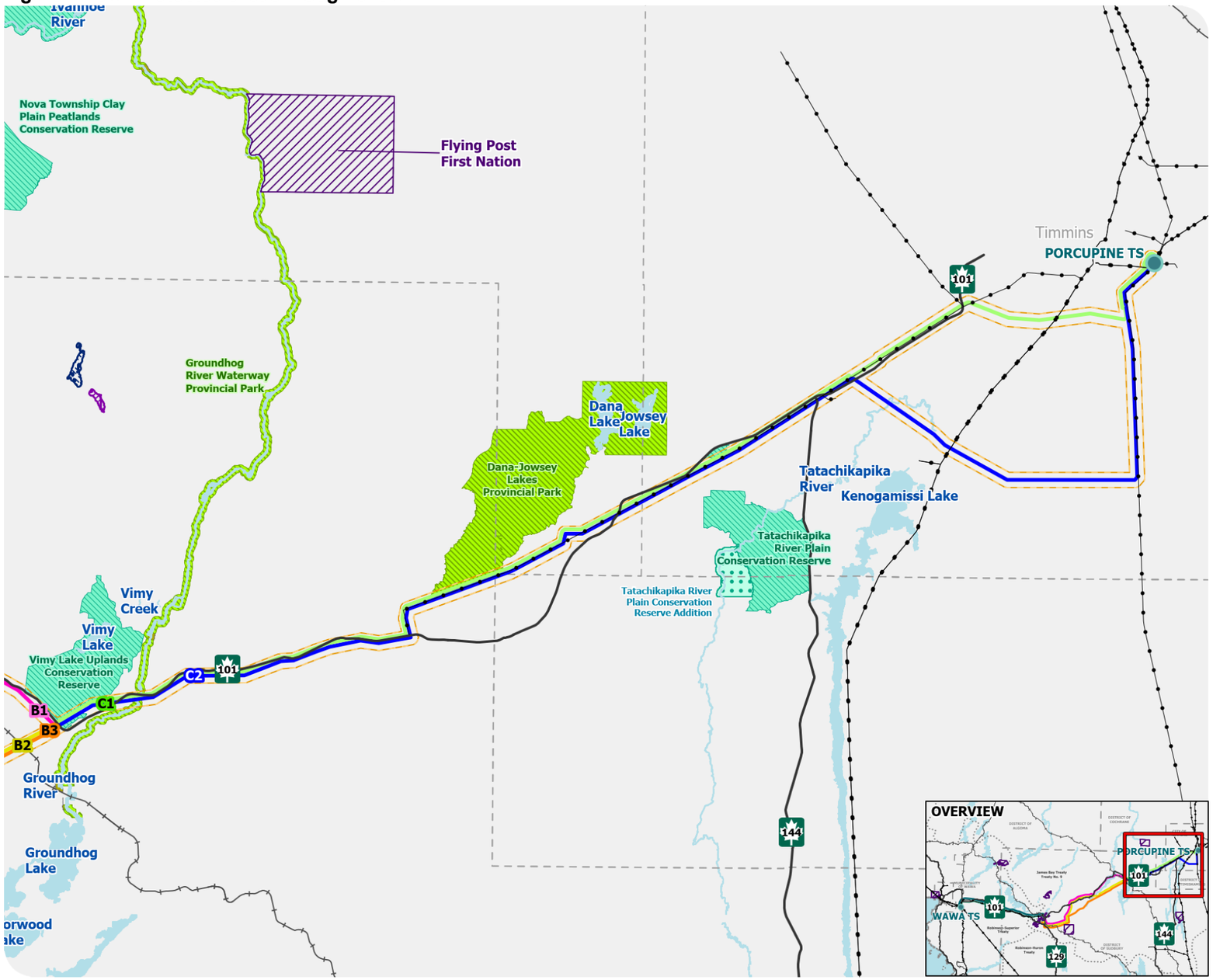
Project Data: v5.1

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MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR12_CH04_ProtectedAreas

Figure 4-10C: Protected areas – Segment C



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

PROTECTED AREAS: SEGMENT C

FIGURE 4-10C

- Existing Transformer Station (TS)
- Existing Transmission Line

Alternative Routes
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2
- Local Study Area (500 m on either side of the route centreline)

Tourism Lake Designation
- Designated
- Pending-Adding

Crown Land Use Policy Area
- Conservation Reserve
- Forest Reserve
- Provincial Park
- Recommended Conservation Reserve

Base Data
- Existing Transmission Line
- Railway
- Highway
- Water Body

SCALE 1:244,000

0 2.75 5.5 11 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR /RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
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DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter4.aprx; LAYOUT: 251043_ESR12_CH04_ProtectedAreas

4.8. Visual and aesthetic resources

Hydro One recognizes there will be a visual change associated with the new transmission line. This section highlights factors that influence how the Project may change physical appearances across the landscape, and the overall susceptibility to change.

The Project is located within predominantly forested areas, providing scenic views. Natural elements include forest cover, lakes, and other successional riparian vegetation adjacent to waterways. Existing vertical elements within the LSA are mostly limited to trees, steep slopes, and existing electrical distribution/transmission lines.

From a visual perspective, most of the sensitive receptors in the surrounding area are dwellings, campgrounds, cottages, and tourism lakes. Many of these areas are encircled by heavily forested areas that offer localized privacy from adjacent visual elements.

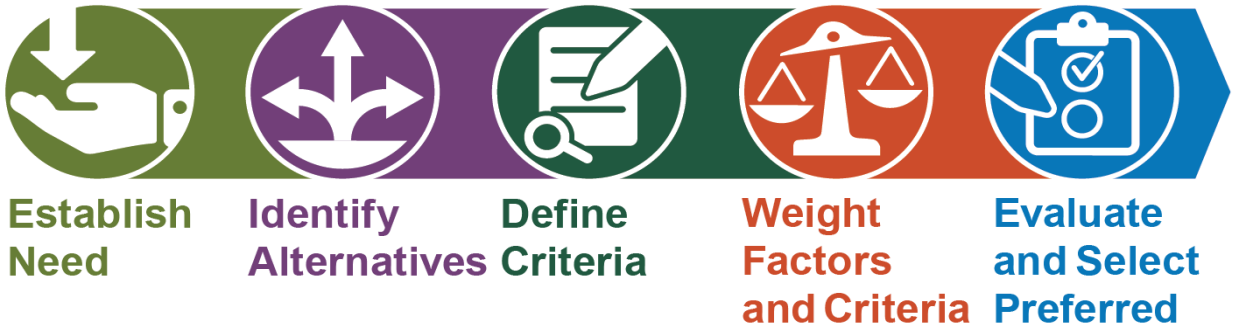
5.0 Identification and evaluation of alternative routes

This section describes the identification and evaluation of the alternative methods for carrying out the Project. “Alternative methods” refer to different means of carrying out the same task to achieve the purpose of the undertaking. In this case, the undertaking involves the construction of a new single-circuit 500 kV transmission line connecting the Wawa TS near the Municipality of Wawa and the Porcupine TS in the City of Timmins. Following the identification of the “alternative methods” for the undertaking, a comparative evaluation of alternatives is completed to determine the preferred alternative.

The Class EA for TF (as defined in **Section 1.6.1**) requires the identification of feasible and reasonable alternative routes. The alternatives are required by the Class EA for TF to be evaluated based on criteria related to the Natural Environment, Socio-Economic Environment, and Technical and Cost Considerations to determine the preferred alternative. Consistent with Hydro One’s standard practice, the evaluation of alternatives also incorporates Indigenous Culture, Values, and Land Use considerations.

For this undertaking, a weighted MCDA was used to select the preferred alternative. MCDA is a common decision-making approach involving a five-step process outlined below (**Figure 5-1**).

Figure 5-1: Multi-criteria decision analysis process



5.1. Step 1: Establish need

As outlined in **Section 1.2**, the IESO identified the need for a new single-circuit 500 kV transmission line in northeastern Ontario. Hydro One received direction from the IESO to initiate work on development activities for the transmission line, including seeking relevant approvals to construct the transmission line. The new transmission line is required to extend from the Wawa TS near the Municipality of Wawa to the Porcupine TS in the City of Timmins.

5.2. Step 2: Identify alternative routes

The Class EA process requires identification of technically feasible and reasonable alternatives to address the need for the Project. The initial identification of alternative routes is completed through a routing study prior to the start of the Class EA process and the initial alternative routes are presented with the NoC.

Hydro One adopted an advanced Geographic Information System (GIS) analysis approach to identify potential alternative routes that reflect a broad range of considerations in a rigorous and systematic manner. The analysis considered the most efficient routes between Wawa TS and Porcupine TS by analyzing constraints and opportunities across the following factor areas:

- Technical and Cost Considerations;
- Natural Environment constraints;
- Socio-Economic Environmental factors; and
- Early input regarding Indigenous Values.

During the pre-NoC period, in-community CISs were conducted with Partner First Nations in addition to calls and meetings, as outlined in **Section 3.11.5**. The primary objective of this engagement was to understand community Values and perspectives relevant to the identification of alternative routes. Each CIS commenced with an overview presentation by Hydro One describing the Project, the route identification process, and the Class EA requirements. The following key themes emerged through the early engagement with Partner First Nations and were incorporated into the initial alternative routes identification process:

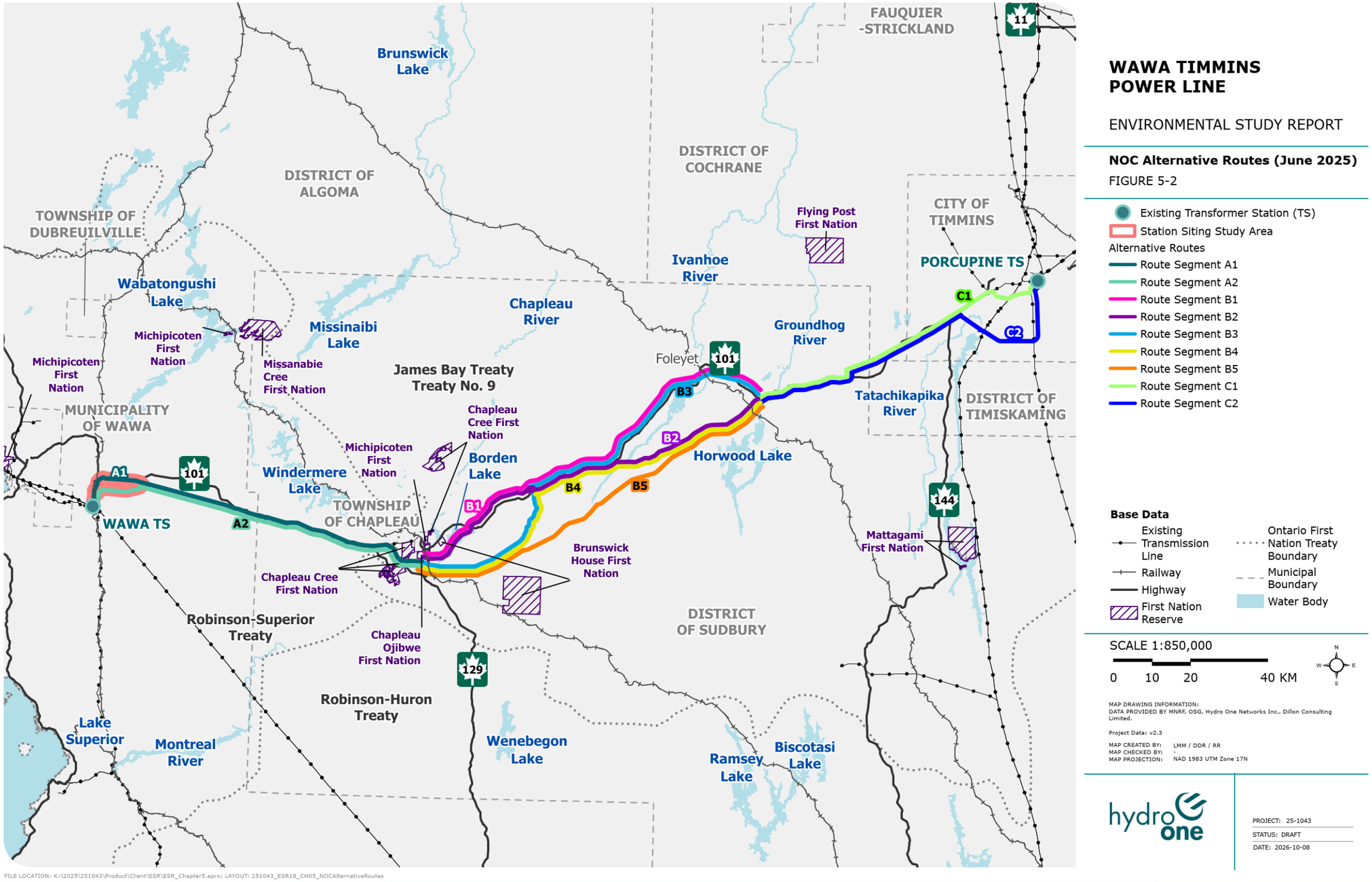
- Strong support for routing the transmission line along existing linear infrastructure, including existing transmission lines and Highway 101;
- The importance of avoiding the Chapleau Game Preserve, identified by multiple Partner First Nations as a protected area within their traditional territory; and
- The need to incorporate community Values into the routing study and EA process from the outset.

The input gathered during the CISs was integrated into the GIS analysis along with Hydro One mapping and secondary source information from publicly available datasets such as LIO. Constraints and opportunities were mapped using available data and weighted based on their relative importance. Weighting was developed by the Project team considering the pre-NoC engagement with Partner First Nations in combination with past project experience. GIS analysis was then employed to develop alternative routes that consider the weighted constraints and opportunities.

Following the initial route development, the Project team applied engineering principles and best practices to refine the alternative routes. For example, the number and degree of angles were reduced to the extent practical due to the high cost associated with sharper angles along transmission lines. The initial alternative routes were also shared with the Partner First Nations for review to identify any “fatal flaws” that would preclude their use as a starting point for the Class EA.

Based on the preliminary assessment and engagement completed during the routing phase, an initial set of alternative routes was presented in June 2025 as part of the NoC (**Figure 5-2**). Throughout the Class EA, refinements were made to the alternative routes as discussed in **Section 5.2.1**.

Figure 5-2: NoC alternative routes (June 2025)



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

NOC Alternative Routes (June 2025)

FIGURE 5-2

- Existing Transformer Station (TS)
- Station Siting Study Area

Alternative Routes

- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment B4
- Route Segment B5
- Route Segment C1
- Route Segment C2

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v2.3

MAP CREATED BY: LMM / DDR / RR
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PROJECT: 25-1043
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FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter5.aprx; LAYOUT: 251043_ESR18_CH05_NOCAlternativeRoutes

5.2.1. Route refinements

Through engagement with communities, listening to feedback, and completing further technical review, 27 refinements to the alternative routes were made. Three substantial refinements are discussed below. The other, more minor refinements are summarized based on the type of refinement or rationale for the refinement. The route refinements are visually presented in **Figure 5-3** and **Figure 5-4** and can be summarized as follows:

- **Routes A1 and A2 refinement (Figure 5-3):** This refinement was initiated in August 2025 following the identification of Chapleau Cree First Nation's ATR lands located southwest of the Township of Chapleau and the existing Chapleau Cree Fox Lake Reserve. The primary objective of the refinement was to avoid the ATR lands, which Routes A1 and A2 originally extended through. To achieve this objective, the centrelines of Routes A1 and A2 were realigned around the Chapleau Cree Fox Lake Reserve lands shown in **Figure 5-3** while maintaining a 100 m buffer from existing residences and structures to the edge of the ROW. The refined routes parallel an existing 115 kV line further eastward until past the reserve, at which point they extend southward toward the junction with Segment B. The north-south portion passes between the Chapleau Cree First Nation and Chapleau Ojibwe First Nation reserves while avoiding their boundaries. This refinement introduces technical challenges, including an additional transmission line crossing and a waterbody crossing. In addition, portions of the refined routes extend into the Township of Chapleau boundaries, which necessitated consultation with the Township as outlined in **Section 3.14.3**. However, these challenges are offset by the avoidance of the Chapleau Cree First Nation ATR lands. The refinement minimized deviation from the alternative routes originally developed while respecting reserve boundaries.
- **Removal of original Routes B1 and B2 (Figure 5-4):** Based on comments received through Indigenous and community engagement, the Project team identified the need to eliminate the original Routes B1 and B2 to better reflect community priorities and minimize potential impacts. The decision was driven by feedback from multiple Partner First Nations identifying the Borden Lake area as

a location of cultural importance for activities including hunting, fishing, trapping as well as occupancy. Maintaining alternative routes near Borden Lake was determined to present an increased risk of adverse effects on culturally significant areas, as well as concern related to traditional land use and stewardship. In addition to responding to concerns from Partner First Nations, the refinement is responsive to community feedback about potential impacts to a built-up area of recreational properties and seasonal residences surrounding Borden Lake. The decision resulted in less potentially impacted landowners and an evaluation that was focused on viable routes so that the Project is built on time to support communities, residents and businesses in northern Ontario.

- **Realignment of Routes B1, B2, and B3 (Figure 5-4):** Concurrent with the removal of original Routes B1 and B2, the remaining routes within Segment B (Routes B3, B4, and B5) were realigned south of the Town of Devon and Poulin Lake. This refinement was informed by both technical considerations and feedback received during the COHs and from Partner First Nations. As only three routes remained in Segment B, Routes B3, B4, and B5 were subsequently renamed to Routes B1, B2, and B3, respectively. Similar to the removal of the original Routes B1 and B2, the key driver was reducing impacts to features of Indigenous cultural significance as well as residences/cottages in the Borden Lake area. Additional minor refinements were also incorporated, including shifting the route away from parcel corners and removing unnecessary line angles to improve the routes from an engineering perspective. Collectively, these realignments improved span configuration, reduced technical complexity, and demonstrated responsiveness to community feedback.
- **Minor refinements to avoid constraints – all routes:** Several minor changes were made to the alternative routes to avoid constraints the Project team became aware of during the Class EA. These constraints were based on stakeholder feedback and additional environmental field surveys and technical analysis undertaken on the alternative routes. Examples of constraints that resulted in minor changes include:

- **Building setbacks:** To reduce property impacts, refinements were implemented to establish a setback of 100 m between the transmission line centreline and existing homes or buildings where feasible;
- **Communication and cellular tower setbacks:** Refinements were required to meet fall clearance requirements for the setback of the transmission line from communication and cellular towers;
- **Mining constraint zones:** Routes were refined to avoid key constraints related to mines, such as active mining tailing ponds and planned mine expansion footprints;
- **Recreational infrastructure:** Refinements were made to avoid crossing established recreational areas, such as the Porcupine Ski Runner trails;
- **Waterbody and river proximity:** The alignment was shifted away from the immediate edges of waterbodies to improve constructability and eliminate the need for certain water crossings; and
- **Private property "clipping:"** Minor alignment shifts were implemented to avoid crossing through the middle of private parcels or clipping property corners as practical, thereby reducing the number of impacted landowners.

The updated alternative routes, reflecting the refinements made as of June 5, 2026, are illustrated in **Figure 5-5**. These refined routes were discussed with Partner First Nations during CISs in January 2026 and presented at COH #2 in February 2026.

Figure 5-3: Routes A1 and A2 refinement

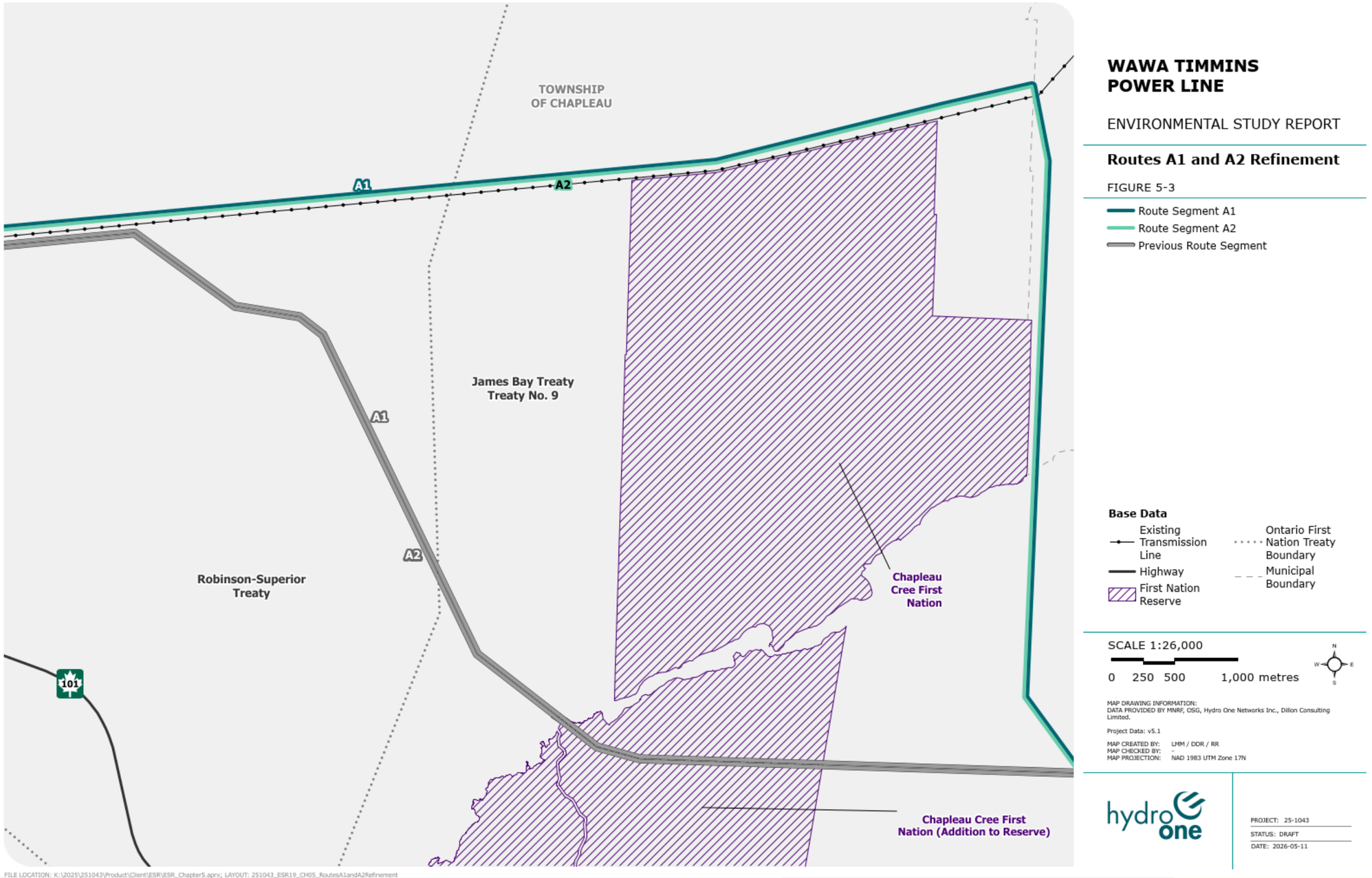
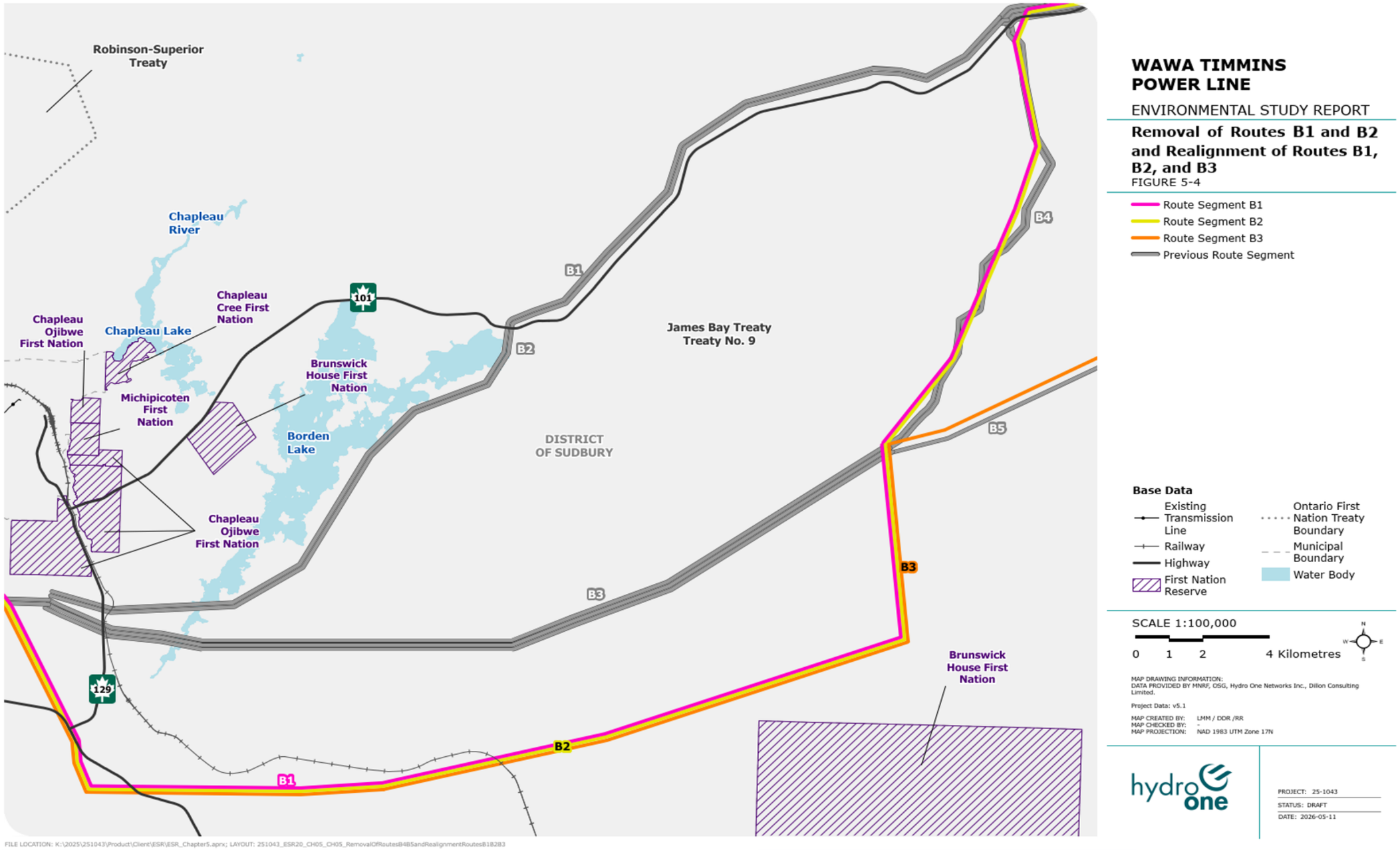


Figure 5-4: Removal of original Routes B1 and B2; realignment of Routes B1, B2, and B3



5.2.2. Alternative routes

The alternative routes that were carried into the comparative evaluation (**Figure 5-5**) are described in the following sections. The route descriptions are divided based on the three segments that were used to group the routes.

5.2.2.1. Segment A

Route A1 begins at the existing Wawa TS and proceeds generally north to Highway 101, paralleling an existing 115 kV transmission line for most of this stretch. The route then takes a more direct route crossing Highway 101 and turning eastward before rejoining the existing transmission line. Route A1 then parallels the existing transmission line for approximately 82 km east/southeast. Along this section, Route A1 crosses Highway 101 a total of six times and parallels the highway (along with the 115 kV transmission line) for several stretches. The route turns southward approximately 1 km from the urban area of Chapleau and extends for approximately 5 km towards the Town of Devon, before tying into Segment B. The total length of Route A1 is approximately 97 km.

Route A2 also begins at the Wawa TS and extends generally north toward Highway 101. However, this route turns eastward sooner than Route A1, remaining on the south side of Highway 101 where it traverses approximately 13 km of forest. Route A2 converges with Route A1 near Highway 101 and continues eastward to parallel the existing 115 kV transmission line. The remainder of Route A2 is identical to Route A1. The total length of Route A2 is approximately 96 km.

5.2.2.2. Segment B

Route B1 extends southeast from Segment A, crossing Highway 101 before turning eastward. The route extends approximately 25 km east/northeast through forests, crossing Highway 129, and a railway. Route B1 then turns northward and extends approximately 21 km until it crosses to the north side of Highway 101. The route then continues northeast, generally paralleling Highway 101 (apart from a portion of the highway that extends through Foleyet) for approximately 72 km. The total length of Route B1 is approximately 125 km.

Route B2 follows the same path as Route B1 for approximately 78 km until it diverges eastward from Highway 101 approximately 32 km from Foleyet. The route then extends approximately 41 km east/northeast through forests, crossing Ivanhoe Lake Provincial Park. The total length of Route B2 is approximately 117 km.

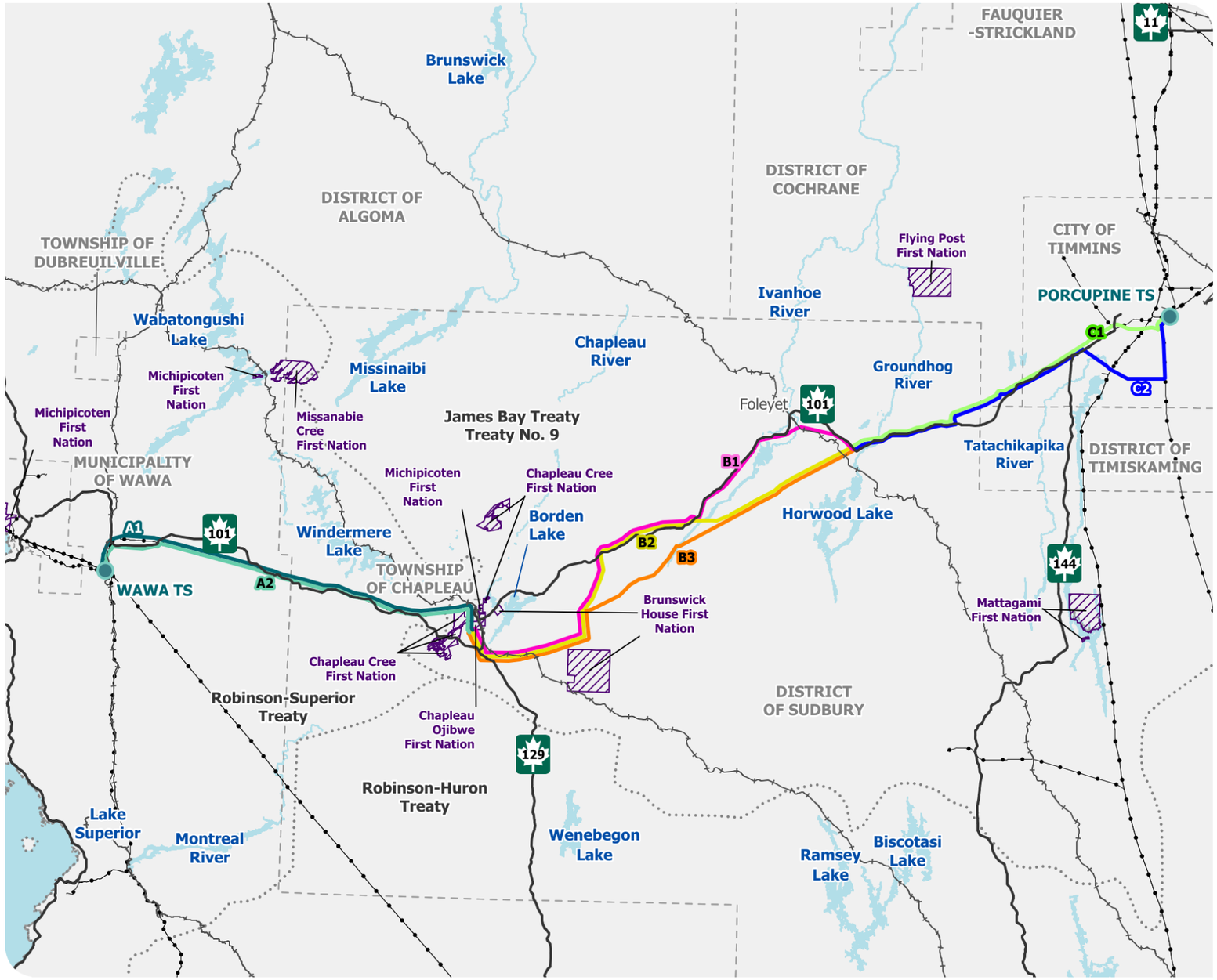
Route B3 follows the same path as Routes B1 and B2 for approximately 39 km until it diverges and extends northeast for approximately 42 km through forests, also crossing Ivanhoe Lake Provincial Park. The route converges with Route B2 east of the park and continues on the same alignment as Route B2 through approximately 32 km of forest. Route B3 does not parallel Highway 101, apart from an 800 m stretch within the initial portion that it shares with Routes B1 and B2. The total length of Route B3 is approximately 112 km.

5.2.2.3. Segment C

Route C1 extends northeast from Segment B, generally paralleling Highway 101 for approximately 25 km before turning north and then northeast to parallel an existing 115 kV transmission line for roughly 45 km. The route then turns eastward and extends through forests for approximately 11 km until it reaches an existing 115 kV transmission line. Route C1 then turns northward to parallel the existing transmission line for approximately 4 km before diverging to enter the Porcupine TS. The total length of Route C1 is approximately 85 km.

Route C2 follows the same alignment as Route C1 for approximately 60 km, generally paralleling Highway 101 and the existing 115 kV transmission line northeastward. The route then diverges southeast through forests for roughly 21 km until it reaches the same 115 kV transmission line that Route C1 parallels. Route C2 then turns northward and parallels the 500 kV transmission line for approximately 15 km before diverging to enter the Porcupine TS. The final 5 km of this route follows the same alignment as Route C1. The total length of Route C2 is approximately 97 km.

Figure 5-5: Refined alternatives routes (February 2026)



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

Alternative Routes (February 2026)

FIGURE 5-5

Existing Transformer Station (TS)

Alternative Routes
- Route Segment A1
- Route Segment A2
- Route Segment B1
- Route Segment B2
- Route Segment B3
- Route Segment C1
- Route Segment C2

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
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DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter5.aprx; LAYOUT: 251043_ESR13_CH05_AlternativeRoutes

5.3. Step 3: Define criteria

Following the identification of alternative routes, the next step in the MCDA process is to establish criteria and associated metrics for measuring the alternative routes.

The evaluation criteria were developed based on input provided by Partner First Nations, stakeholders, agencies, the TACs and Project team members (see **Section 3.10** for a list of key comments). The primary forum for gathering input into the evaluation criteria was the TACs, which are discussed in **Section 3.10**.

Evaluation criteria for the Project were grouped into the following four categories, which are each discussed in the following sections:

- Indigenous Culture, Values, and Land Use;
- Natural Environment;
- Socio-Economic Environment; and
- Technical and Cost Considerations.

Each category includes a range of criteria, and each criterion has one or more metrics. The metrics represent what is measured to compare the alternative routes.

Upon review of the evaluation framework, the Project team determined that there was an inordinate level of bias toward shorter routes. This bias created a situation where a longer route was unlikely to score high overall in the comparative evaluation even if it had important advantages over shorter route(s). To reduce the bias toward shorter routes, per km rates were used for several of the metrics to remove the influence of line length. For example, rather than comparing the alternative routes based on the total area of wetlands within the ROW, the routes were compared based on the area of wetlands within the ROW per km of the route. This allowed for the alternatives to be compared independent of their lengths. Line length was considered directly in its own metric under the Technical and Cost Considerations category, and indirectly within a number of metrics where per km rates were not used. The results outlined in **Section 5.5** specify which measurements per km rates were used for.

5.3.1. Natural Environment category

The Natural Environment category comprises six criteria, as shown in **Table 5-1**. The criteria aim to measure the potential effects of the alternative routes on key natural environment features within the Study Area.

Table 5-1: Natural Environment criteria

Criterion	Effects measured
Surface Water Resources and Aquatic Habitat	Effects to aquatic habitat, including area of mapped waterbodies within the ROW, length of watercourse within the ROW, and lake trout lakes within a 300 m buffer.
Designated Natural Areas	Effects to designated natural areas including provincial parks, conservation reserves, PSWs, and natural environment AOCs within the ROW.
Wetlands and Regulated Areas	Effects to wetlands and Conservation Authority regulated areas within the ROW.
Vegetation and Vegetation Communities	Effects to vegetation, particularly the removal of incompatible[13] vegetation that would require permanent removal within the ROW.
Wildlife and Wildlife Habitat	Effects to SWH and candidate SWH, measured by footprint effects within the ROW and broader potential disturbance within the PSA.
SAR	Effects to SAR and their habitats, including temporary and permanent habitat disturbance and/or alteration within the ROW and PSA, where applicable.

Data used to measure the alternative routes in the Natural Environment category included:

- Field data collected through the following surveys:
  - Aquatic habitat assessments;
  - eDNA metabarcoding;
  - Owl surveys;
  - Winter aerial surveys;

[13] Vegetation is considered incompatible if its height at maturity has potential to interfere with the safe and reliable operation of the transmission line. This vegetation needs to be permanently removed from the ROW to accommodate the Project.

- Botanical assessment;
- Breeding bird surveys;
- Amphibian breeding surveys; and
- SAR habitat assessments.

- Publicly accessible LIO and NHIC datasets;
- Datasets provided by the City of Timmins; and
- FMPs.

5.3.2. Socio-Economic Environment category

The Socio-Economic Environment category comprises seven criteria, as shown in **Table 5-2**. The criteria generally aim to measure the potential effects of the alternative routes on social and economic features within the PSA and LSA.

Table 5-2: Socio-Economic Environment criteria

Criteria	Measure
Co-Location and Repurpose of Existing Infrastructure	Alignment with PPS policies that encourage co-location, reflected as the length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.
Forestry Resources and Operations	Effects to forestry, including the area of active forestry sites within the ROW (based on FMPs) and the total count of forestry road crossings.
Mineral Resources and Operations	Effects to mining, including the area of active mining sites and mining claim areas within the ROW.
Residential Properties	Effects to residential dwellings, including proximity to existing properties and buildings within the ROW and PSA.

Criteria	Measure
Commercial, Industrial, Institutional, and Recreational Areas, Business, and Facilities	Effects on existing commercial, industrial, institutional, and recreational areas, businesses, and properties within the ROW and PSA, as well as designated remote tourism lakes and tourism/ recreation areas (e.g., canoe routes, snowmobile trails) within the PSA.
BHRs and CHLs	Effects on properties with known or potential BHRs or CHLs within the ROW and PSA.
Archaeological Resources	Effects on areas within the ROW identified with archaeological potential that would require a Stage 2 AA.

Data used to evaluate the alternative routes in the Socio-Economic Environment category included:

- FMPs;
- Provincial mining datasets;
- Parcel fabric;
- Publicly accessible LIO geographic datasets;
- Aerial photography;
- CHEC report completed for the Project; and
- Stage 1 AA completed for the Project.

5.3.3. Indigenous Culture, Values, and Land Use category

The Indigenous Culture, Values, and Land Use evaluation category consists of seven criteria, as shown in **Table 5-3**. As described in **Section 3.11.2**, Hydro One and Partner First Nations participated in the route evaluation process in different ways, including through:

- Three Indigenous TAC workshops with Partner First Nations to gather input on the evaluation framework, criteria weighting, and the results;
- Indigenous-specific route evaluation workshops and discussions;

- Community-specific CISs where the Project team presented information and discussed the Project with community members at key milestones;
- Bi-weekly PEC meetings to discuss Project updates and feedback;
- Requests for community Values mapping for consideration in the evaluation;
- Provision of alternative route shapefiles for Partner First Nations review; and
- Review of other Project data such as results of environmental field surveys and technical cultural heritage reports.

The criteria below reflect discussions with Indigenous communities and aim to measure the potential effects of the alternative routes on key features from the perspective of Indigenous Culture, Values, and Land Use.

Table 5-3: Indigenous Culture, Values, and Land Use criteria

Criteria	Measure
Areas of Historical/Cultural Significance	Effects on features of historical significance identified by Partner First Nations including ceremonial sites and occupancy areas within the ROW.
Hunting, Trapping, and Harvesting	Effects on lands with habitat or vegetation types that support or have the potential to support hunting/trapping/harvesting activities and medicinal plants within the ROW.
Surface Water and Fisheries	Effects on aquatic habitat, including total number and length of watercourse/drain crossings within ROW.
Rare/Undisturbed Native Habitats/Ecosystems	Effects to undisturbed/natural communities with minimal anthropogenic influence within the ROW, excluding cultural communities and open water areas.
Rare/Sensitive Species	Long-term effects on SAR and their habitat within the ROW and PSA, including potential temporary and/or permanent SAR habitat removals within the ROW.
Culturally Significant Species and Protected Areas	Effects on specific species identified by Indigenous communities as culturally significant, including moose habitat, birch stands, and black ash stands within the ROW.

Criteria	Measure
Co-Location and Repurposing of Existing Infrastructure	Length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.

Evaluation of criteria in the Indigenous Culture, Values, and Land Uses category were based on community Values mapping that was received from Indigenous communities, where applicable. In addition, data sources that were used for other categories were also used for this category, adapted where required to suit the intent of Indigenous interests as discussed with the communities. The following types of data were used for this component of the evaluation:

- Community Values mapping;
- ELC, focusing on vegetation communities that support hunting/trapping and harvesting;
- Aquatic habitat assessments;
- Botanical assessments;
- Breeding bird surveys;
- Amphibian breeding surveys;
- SAR habitat assessments; and
- Publicly accessible LIO geographic datasets.

5.3.4. Technical and Cost Considerations category

The Technical and Cost Considerations category consists of eight criteria, as shown in **Table 5-4**. The criteria aim to measure characteristics of the alternative routes that are expected to have the greatest influence on their engineering complexity and cost.

Table 5-4: Technical and Cost Considerations criteria

Criteria	Measure
Line Length	Total length of each alternative route.
Light and Heavy Angle Structures	Number of light and heavy angle structures.
Non-Transmission Line Crossings	Total number of crossings of major waterbodies, railways, highways, pipelines, large ditches, and distribution lines.

Criteria	Measure
Transmission Line Crossings	Total number of crossings of existing 115 kV transmission lines.
Co-Location and Repurpose of Existing Infrastructure	Length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.
Other Facilities/Infrastructure Considered	Number of registered airstrips within 1000 m of the centreline and number of buildings with 200 m of the centreline.
Real Estate Considerations	Real estate and land acquisition considerations that influence the cost of the transmission line.
Overall Constructability	Features that impact the construction complexity, including flexibility for tower placement or minor route refinements, the need for transmission circuit outages during construction, areas with steeper slopes, and access road constructability.

Data used to evaluate criteria in the Technical and Cost Considerations category included:

- Property ownership and parcel fabric;
- Publicly accessible LIO geographic datasets;
- Engineering standards and best practices; and
- Preliminary engineering and system planning information on the alternative routes.

5.4. Step 4: Weight criteria

Following identification of the evaluation criteria and their measures, the Project team assigned weights for the criteria within each evaluation category. This weighting process was guided by input provided by the Agency and Indigenous TACs during the second round of workshops (see **Section 3.10.2.2**), environmental studies, and Project team technical expertise. The higher the weighting, the more potential influence the criteria had on the outcome of the evaluation. Refer to **Appendix B-5** for a summary of the TAC workshops and criteria weighting input.

The Project team applied Hydro One's approach of assigning equal weighting to each of the four evaluation categories (Indigenous Culture, Values, and Land Use, Natural

Environment; Socio-Economic Environment; and Technical and Cost Considerations). This determination provides a balanced evaluation and avoids a situation where one evaluation category has more influence over the results of the evaluation than others. The various criteria within each category received different weighting to reflect their relative importance.

Within each category, a total weighting of 100 percent was distributed amongst the criteria within that category. For the Indigenous Culture, Values, and Land Use; Natural Environment; and Socio-Economic Environment categories, criteria weights generally reflect their relative importance as communicated through the consultation process (i.e., TAC surveys, input received at COHs, direct engagement with Partner First Nations, etc.). Project team judgement was also used to refine the criteria weights where required. This judgement was informed by past experience for transmission line projects, specific characteristics of the Project and its setting, and which criteria are more applicable for differentiating the alternative routes. For the Technical and Cost Considerations category, weights were allocated by the Hydro One Project team based on the anticipated cost/constructability impact of each criterion (e.g., criteria with greater potential cost impacts received a higher weighting).

Certain Project effects were considered within more than one evaluation category because they have effects from multiple perspectives. For example, private property impacts are included in the Socio-Economic Environment category as they relate to effects to people and communities. Property impacts are also included in the Technical and Cost Considerations category as they relate to property acquisition costs and additional effort/complexity for the Project. Including considerations like this in multiple categories allows them to be weighted in a way that is proportional to their importance from each perspective. Where effects are considered in multiple categories, the Project team considered the combined influence of the criteria during the weighting process to avoid over-emphasizing an effect in the overall route evaluation.

The following criteria were initially included in the evaluation framework; however, based on the available data, they did not contribute to differentiating the routes for the reasons described below. As a result, these criteria were removed, and the weights they were

initially assigned were redistributed amongst other criteria in the respective category. This adjustment allowed for criteria that contribute to differentiating the alternative routes to have a higher weight.

- Indigenous Culture, Values, and Land Use Category:
  - Traditional Territory, Land Claims, and Reserve Lands: Due to the broad coverage of traditional territory and avoidance of land claims and reserve lands, this criterion did not differentiate the alternative routes;
  - System Benefits and Impacts to Indigenous Communities: No circuit outage impacts to Indigenous revenue generating facilities were identified; and
  - Effects to Drinking Water Sources: Drinking water sources identified by Indigenous communities are located within areas where the alternative routes are on the same alignment; therefore, this criterion did not differentiate the alternative routes.
- Socio-Economic Environment Category:
  - Aggregate Resource Extraction (Pits/Quarries): Mapped active and inactive aggregate sites are located within areas where the alternative routes are on the same alignment; therefore, this criterion did not differentiate the alternative routes; and
  - SWP: None of the alternative routes are within areas where SWP policies apply.

The final criteria weights are outlined in **Table 5-5** to **Table 5-8**.

Table 5-5: Natural Environment criteria weighting

Criterion	Metrics of measurement	Weight (%)
Surface Water Resources and Aquatic Habitat	Effects to aquatic habitat, including area of mapped waterbodies within the ROW, length of watercourse within the ROW, and lake trout lakes within a 300 m buffer.	15
Designated Natural Areas	Effects to designated natural areas including provincial parks, conservation reserves, PSWs, and natural environment AOCs within the ROW.	20
Wetlands and Regulated Areas	Effects to wetlands and Conservation Authority regulated areas within the ROW.	15
Vegetation and Vegetation Communities	Effects to vegetation, particularly the removal of incompatible vegetation that would require permanent removal within the ROW.	15
Wildlife and Wildlife Habitat	Effects to SWH and candidate SWH, measured by footprint effects within the ROW and broader potential disturbance within the PSA.	20
SAR	Effects to SAR and their habitats, including temporary and permanent habitat disturbance and/or alteration within the ROW and PSA, where applicable.	15
	Total weight	100

Table 5-6: Socio-Economic Environment criteria weighting

Criterion	Metrics of measurement	Weight (%)
Co-Location and Repurpose of Existing Infrastructure	Alignment with PPS policies that encourage co-location, reflected as the length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.	15
Forestry Resources and Operations	Effects to forestry, including the area of active forestry sites within the ROW (based on FMPs) and the total count of forestry road crossings.	15
Mineral Resources and Operations	Effects to mining, including the area of active mining sites and mining claim areas within the ROW.	15
Residential Properties	Effects to residential dwellings, including proximity to existing properties and buildings within the ROW and PSA.	10
Commercial, Industrial, Institutional, and Recreational Areas, Business, and Facilities	Effects on existing commercial, industrial, institutional, and recreational areas, businesses, and properties within the ROW and PSA, as well as designated remote tourism lakes and tourism/recreation areas (e.g., canoe routes, snowmobile trails) within the PSA.	15
BHRs and CHLs	Effects on properties with known or potential BHRs or CHLs within the ROW and PSA.	15
Archaeological Resources	Effects on areas within the ROW identified with archaeological potential that would require a Stage 2 AA.	15
	Total weight	100

Table 5-7: Indigenous Culture, Values, and Land Use criteria weighting

Criterion	Metrics of measurement	Weight (%)
Areas of Historical/Cultural Significance	Effects on features of historical significance identified by Indigenous communities, including ceremonial sites and occupancy areas within the ROW.	15
Hunting, Trapping, and Harvesting	Effects on lands with habitat or vegetation types that support or have the potential to support hunting/trapping/harvesting activities and medicinal plants within the ROW.	15
Surface Water and Fisheries	Effects on aquatic habitat, including total number and length of watercourse/drain crossings within ROW.	15
Rare/Undisturbed Native Habitats/Ecosystems	Effects to undisturbed/natural communities with minimal anthropogenic influence within the ROW, excluding cultural communities and open water areas.	15
Rare/Sensitive Species	Long-term effects on SAR and their habitat within the ROW and PSA, including potential temporary and/or permanent SAR habitat removals within the ROW.	15
Culturally Significant Species and Protected Areas	Effects on specific species identified by Indigenous communities as culturally significant, including moose habitat, birch stands, and black ash stands within the ROW.	15
Co-Location and Repurposing of Existing Infrastructure	Length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.	10
	Total weight	100

Table 5-8: Technical and Cost Considerations criteria weighting

Criterion	Metrics of measurement	Weight (%)
Line Length	Effects on features of historical significance identified by Indigenous communities, including ceremonial sites and occupancy areas within the ROW.	25
Light and Heavy Angle Structures	Effects on lands with habitat or vegetation types that support or have the potential to support hunting/trapping/harvesting activities and medicinal plants within the ROW.	10
Non-Transmission Line Crossings	Effects on aquatic habitat, including total number and length of watercourse/drain crossings within ROW.	10
Transmission Line Crossings	Effects to undisturbed/natural communities with minimal anthropogenic influence within the ROW, excluding cultural communities and open water areas.	10
Co-Location and Repurpose of Existing Infrastructure	Long-term effects on SAR and their habitat within the ROW and PSA, including potential temporary and/or permanent SAR habitat removals within the ROW.	5
Other Facilities/Infrastructure Considered	Effects on specific species identified by Indigenous communities as culturally significant, including moose habitat, birch stands, and black ash stands within the ROW.	5
Real Estate Considerations	Length of the alternative route that parallels existing infrastructure or repurposes abandoned transmission line corridors.	15
Overall Constructability	Effects on features of historical significance identified by Indigenous communities, including ceremonial sites and occupancy areas within the ROW.	20
	Total weight	100

5.5. Step 5: Evaluate and select

Following identification and weighting of the evaluation criteria, the Project team used GIS analysis to measure each alternative route based on the various criteria using available data sources. This provided quantitative information such as area of overlap, length of line, and the number of features within the ROW. As noted in **Section 5.3**, per km rates were used for some metrics. The quantitative information was then used to calculate numerical weighted scores per criterion and the total for each evaluation category in a comparative evaluation matrix.

The alternative routes within each segment were compared only to the other route(s) within that segment. For example, Route A1 was compared to Route A2 to determine the preferred route for Segment A. The same process was completed for Segment B and Segment C. The preferred route is a combination of the preferred routes within Segments A, B, and C.

In addition to the quantitative evaluation, the analysis for each criterion was rationalized with a reasoned argument statement that identifies the measured differences and similarities between the alternative routes. Following completion of the comparative evaluation matrix, a summary was provided for each category, and an overall reasoned argument was prepared for the technically preferred alternative route.

The results of the weighted MCDA are provided in **Table 5-9** through **Table 5-12**.

Table 5-9: Natural Environment category comparative evaluation results

Criterion	Metrics of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Surface Water Resources and Aquatic Habitat	Effects to aquatic habitat including total area of mapped waterbodies and length of watercourse within the ROW, as well as proximity to lake trout lakes within a 300 m buffer.	**15%**	Traverses 0.15 ha/km of waterbodies, 0.06 km/km of watercourses, and includes 0.03 lake trout lakes/km.	Traverses 0.13 ha/km of waterbodies, 0.06 km/km of watercourses, and includes 0.02 lake trout lakes/km.	Traverses 0.10 ha/km of waterbodies, 0.05 km/km of watercourses, and includes 0 lake trout lakes/km.	Traverses 0.05 ha/km of waterbodies, 0.06 km/km of watercourses, and includes 0 lake trout lakes/km.	Traverses 0.04 ha/km of waterbodies, 0.06 km/km of watercourses, and includes 0 lake trout lakes/km.	Traverses 0.09 ha/km of waterbodies, 0.07 km/km of watercourses, and includes 0 lake trout lakes/km.	Traverses 0.11 ha/km of waterbodies, 0.08 km/km of watercourses, and includes 0 lake trout lakes/km.
			Weighted score: 3.39	**Weighted score: 3.75**	**Weighted score: 2.94**	**Weighted score: 3.12**	**Weighted score: 3.24**	**Weighted score: 3.75**	**Weighted score: 3.20**
Designated Natural Areas	Effects to designated natural areas including provincial parks, conservation reserves, PSWs, and natural environment AOCs identified in FMPs within the ROW.	**20%**	Traverses 1.92 ha/km of EMAs and 0.03 ha/km of conservation reserves; includes 0.83 AOCs/km.	Traverses 1.93 ha/km of EMAs and 0.03 ha/km of conservation reserves; includes 0.84 AOCs/km.	Traverses 0.01 ha/km of PSWs and 0.91 AOCs/km; does not traverse EMAs or conservation reserves.	Traverses 0.90 AOCs/km; does not traverse EMAs, conservation reserves, or PSWs.	Traverses 0.96 AOCs/km; does not traverse EMAs, conservation reserves, or PSWs.	Traverses 0.19 ha/km of conservation reserves and 0.41 AOCs/km; does not traverse EMAs or PSWs.	Traverses 0.17 ha/km of conservation reserves and 0.34 AOCs/km; does not traverse EMAs or PSWs.
			Weighted score: 5.00	**Weighted score: 4.98**	**Weighted score: 4.67**	**Weighted score: 5.00**	**Weighted score: 4.88**	**Weighted score: 4.68**	**Weighted score: 5.00**
Wetlands and Regulated Areas	Effects to wetlands and Conservation Authority regulated areas within the ROW.	**15%**	Traverses 0.78 ha/km of wetlands and 0 ha/km of regulated areas.	Traverses 0.77 ha/km of wetlands and 0 ha/km of regulated areas.	Traverses 1.91 ha/km of wetlands and 0 ha/km of regulated areas.	Traverses 1.67 ha/km of wetlands and 0 ha/km of regulated areas.	Traverses 1.15 ha/km of wetlands and 0 ha/km of regulated areas.	Traverses 2.44 ha/km of wetlands and 0.64 ha/km of regulated areas.	Traverses 2.76 ha/km of wetlands and 0.33 ha/km of regulated areas.
			Weighted score: 3.71	**Weighted score: 3.75**	**Weighted score: 2.4**	**Weighted score: 2.69**	**Weighted score: 3.75**	**Weighted score: 3.57**	**Weighted score: 3.36**

Criterion	Metrics of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Vegetation and Vegetation Communities	Effects to vegetation, particularly the removal of incompatible vegetation that would require permanent removal within the ROW.	**15%**	Affects 6.83 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 6.86 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 7.14 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 7.14 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 7.11 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 6.54 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).	Affects 6.49 ha/km of vegetation communities that are incompatible with transmission lines (long-term effects).
			Weighted score: 3.75	**Weighted score: 3.73**	**Weighted score: 3.73**	**Weighted score: 3.73**	**Weighted score: 3.75**	**Weighted score: 3.72**	**Weighted score: 3.75**
Wildlife and Wildlife Habitat	Effects to SWH and candidate SWH, measured by footprint effects within the ROW and broader potential disturbance within the PSA.	**20%**	Affects 13.88 ha/km of SWH within the ROW and 39.15 ha/km within the PSA.	Affects 13.95 ha/km of SWH within the ROW and 39.86 ha/km within the PSA.	Affects 13.09 ha/km of SWH within the ROW and 41.70 ha/km within the PSA.	Affects 13.33 ha/km of SWH within the ROW and 42.51 ha/km within the PSA.	Affects 13.68 ha/km of SWH within the ROW and 43.63 ha/km within the PSA.	Affects 11.74 ha/km of SWH within the ROW and 36.11 ha/km within the PSA.	Affects 11.73 ha/km of SWH within the ROW and 35.77 ha/km within the PSA.
			Weighted score: 5.00	**Weighted score: 4.96**	**Weighted score: 5.00**	**Weighted score: 4.91**	**Weighted score: 4.78**	**Weighted score: 4.99**	**Weighted score: 5.00**
SAR	Effects to SAR and their habitats, including temporary and permanent habitat disturbance and/or alteration within the ROW and PSA, where applicable.	**15%**	Affects 1,077.06 ha of SAR habitat within the ROW and 33.96 ha/km within the PSA, with 4.20 ha/km of permanent habitat removal.	Affects 1,064.05 ha of SAR habitat within the ROW and 33.97 ha/km within the PSA, with 4.22 ha/km of permanent habitat removal.	Affects 1,465.97 ha of SAR habitat within the ROW and 37.29 ha/km within the PSA, with 4.95 ha/km of permanent habitat removal.	Affects 1,340.74 ha of SAR habitat within the ROW and 36.23 ha/km within the PSA, with 4.84 ha/km of permanent habitat removal.	Affects 1,258.26 ha of SAR habitat within the ROW and 35.68 ha/km within the PSA, with 4.61 ha/km of permanent habitat removal.	Affects 1,021.88 ha of SAR habitat within the ROW and 36.82 ha/km within the PSA, with 4.87 ha/km of permanent habitat removal.	Affects 1,167.92 ha of SAR habitat within the ROW and 36.89 ha/km within the PSA, with 4.88 ha/km of permanent habitat removal.
			Weighted score: 3.73	**Weighted score: 3.74**	**Weighted score: 3.41**	**Weighted score: 3.57**	**Weighted score: 3.75**	**Weighted score: 3.75**	**Weighted score: 3.58**
Total weighted score – Natural Environment category (out of 25%)			**24.58**	**24.92**	**22.16**	**23.03**	**24.15**	**24.46**	**23.88**

Table 5-10: Socio-Economic Environment category comparative evaluation results

Criterion	Metric of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Co-Location and Repurpose of Existing Infrastructure	Alignment with infrastructure corridors as defined by the PPS, largely reflected as the ability to parallel or utilize existing transmission corridors.	**15%**	Parallels or repurposes 0.90 km/km of existing linear infrastructure, maximizing the use of previously disturbed corridors.	Parallels or repurposes 0.81 km/km of existing linear infrastructure, utilizing existing corridors for the majority of the route.	Parallels or repurposes 0.30 km/km of existing linear infrastructure, requiring significantly more new clearing.	Parallels or repurposes 0.16 km/km of existing linear infrastructure, resulting in a high degree of new corridor creation.	Parallels or repurposes only 0.07 km/km of existing linear infrastructure, representing the least amount of co-location.	Parallels or repurposes 0.75 km/km of existing linear infrastructure, effectively utilizing existing corridors.	Parallels or repurposes 0.67 km/km of existing linear infrastructure, maintaining a moderate level of co-location.
			Weighted score: 3.75	**Weighted score: 3.37**	**Weighted score: 3.75**	**Weighted score: 2.07**	**Weighted score: 0.91**	**Weighted score: 3.75**	**Weighted score: 3.34**
Forestry Resources and Operations	Effects to forestry, including the area of active forestry sites within the ROW (based on FMPs) and the total count of forestry road crossings.	**15%**	Traverses 0.56 ha/km of active forestry sites and requires 0.07 forestry road crossings per km.	Traverses 0.57 ha/km of active forestry sites and requires 0.08 forestry road crossings per km.	Traverses 0.73 ha/km of active forestry sites. Includes 0 forestry road crossings.	Traverses 0.47 ha/km of active forestry sites. Includes 0 forestry road crossings.	Traverses 0.32 ha/km of active forestry sites. Includes 0 forestry road crossings.	Traverses 0.88 ha/km of active forestry sites. Includes 0 forestry road crossings.	Traverses 0.73 ha/km of active forestry sites. Includes 0 forestry road crossings.
			Weighted score: 3.75	**Weighted score: 3.54**	**Weighted score: 2.39**	**Weighted score: 3.00**	**Weighted score: 3.75**	**Weighted score: 3.35**	**Weighted score: 3.75**
Mineral Resources and Operations	Effects to mining infrastructure, including the area of active mining sites and mining claim areas within the ROW.	**15%**	No active mining sites or mining claims (0 ha/km) are traversed by the route.	No active mining sites or mining claims (0 ha/km) are traversed by the route.	Traverses 0.74 ha/km of active mining sites and 3.66 ha/km of mining claims.	Traverses 0.79 ha/km of active mining sites and 3.37 ha/km of mining claims.	Traverses 0.06 ha/km of active mining sites and 3.16 ha/km of mining claims.	Traverses 2.31 ha/km of active mining sites and 5.09 ha/km of mining claims.	Traverses 1.39 ha/km of active mining sites and 5.35 ha/km of mining claims.
			Weighted score: 3.75	**Weighted score: 3.75**	**Weighted score: 1.47**	**Weighted score: 1.57**	**Weighted score: 3.75**	**Weighted score: 2.85**	**Weighted score: 3.67**
Residential Properties	Effects on existing residential properties, including proximity to existing homes within the ROW and PSA.	**10%**	Affects 3 residences within the ROW and has a density of 0.05 residences/km within the PSA.	Affects 3 residences within the ROW and has a density of 0.05 residences/km within the PSA.	Affects 2 residences within the ROW and has a density of 0.02 residences/km within the PSA.	Affects 2 residences within the ROW and has a density of 0.03 residences/km within the PSA.	Contains 0 residences within the ROW and has 0/km residences within the PSA.	Affects 14 residences within the ROW and has a density of 0.29 residences/km within the PSA.	Affects 14 residences within the ROW and has a density of 0.27 residences/km within the PSA.
			Weighted score: 2.50	**Weighted score: 2.49**	**Weighted score: 1.64**	**Weighted score: 1.64**	**Weighted score: 2.50**	**Weighted score: 2.40**	**Weighted score: 2.50**

Criterion	Metric of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Commercial, Industrial, Institutional, and Recreational Areas, Businesses, and Facilities	Effects on existing commercial, industrial, institutional, and recreational businesses and properties within the ROW and PSA, as well as designated remote tourism lakes and other tourism/recreation areas (e.g., canoe routes, snowmobile trails) within the PSA.	**15%**	Affects 0.08 buildings per km and 0.04 properties per km; includes 0.03 ha of remote tourism lakes per km and 0 ha of other tourism/recreation areas.	Affects 0.03 buildings and 0.03 properties per km; includes 0.03 ha of remote tourism lakes per km and 0 ha of other tourism/recreation areas.	Overlaps 0 buildings and 0.18 properties per km; includes 0.73 ha of remote tourism lakes per km and 0.85 ha of other tourism/recreation areas per km.	Overlaps 0 buildings and 0.19 properties per km; includes 0.93 ha of remote tourism lakes per km and 0.93 ha of other tourism/recreation areas per km.	Overlaps 0 buildings and 0.02 properties per km; includes 2.31 ha of remote tourism lakes per km and 2.31 ha of other tourism/recreation areas per km.	Affects 0.09 buildings and 0.47 properties per km; includes 0 ha of remote tourism lakes and 0.05 ha of other tourism/recreation areas per km.	Affects 0.01 buildings and 0.38 properties per km; includes 0 ha of remote tourism lakes and 0.12 ha of other tourism/recreation areas per km.
			Weighted score: 2.87	**Weighted score: 3.74**	**Weighted score: 3.08**	**Weighted score: 2.76**	**Weighted score: 2.51**	**Weighted score: 2.61**	**Weighted score: 3.33**
BHRs and CHLs	Effects on properties with known or potential BHRs or CHLs within the ROW and PSA.	**15%**	Traverses areas with 0.03 known or potential BHRs/CHLs per km.	Traverses areas with 0.02 known or potential BHRs/CHLs per km.	Traverses areas with 0.02 known or potential BHRs/CHLs per km.	Traverses areas with 0.03 known or potential BHRs/CHLs per km.	Traverses areas with 0.03 known or potential BHRs/CHLs per km.	Traverses areas with 0.04 known or potential BHRs/CHLs per km.	Traverses areas with 0.02 known or potential BHRs/CHLs per km.
			Weighted score: 2.52	**Weighted score: 3.75**	**Weighted score: 3.75**	**Weighted score: 3.53**	**Weighted score: 3.37**	**Weighted score: 2.20**	**Weighted score: 3.75**
Archaeological Resources	Effects on areas within the ROW identified with archaeological potential that would require a Stage 2 AA.	**15%**	Traverses 1.22 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 1.17 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 1.27 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 1.20 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 1.12 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 0.95 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.	Traverses 1.13 ha/km of land identified as having archaeological potential requiring a Stage 2 AA.
			Weighted score: 3.59	**Weighted score: 3.75**	**Weighted score: 3.30**	**Weighted score: 3.51**	**Weighted score: 3.75**	**Weighted score: 3.75**	**Weighted score: 3.15**
Total weighted score – Socio-Economic Environment category (out of 25%)			**22.72**	**24.40**	**19.38**	**18.09**	**20.53**	**20.9**	**23.03**

Table 5-11: Indigenous Culture, Values, and Land Use category comparative evaluation results

Criterion	Metric of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Areas of Historical/Cultural Significance	Effects on features of historical significance identified by Indigenous communities, including ceremonial sites and occupancy areas within the ROW.	**15%**	Traverses 0.10 lakes/rivers of cultural/historic significance per km and 0.03 ha/km of Indigenous community occupancy areas.	Traverses 0.10 lakes/rivers of cultural/historic significance per km and 0.03 ha/km of Indigenous community occupancy areas.	Traverses 0.02 lakes/rivers of cultural/historic significance per km with 0 ha/km of Indigenous community occupancy areas.	Traverses 0.03 lakes/rivers of cultural/historic significance per km and 0.01 ha/km of Indigenous community occupancy areas.	Traverses 0.03 lakes/rivers of cultural/historic significance per km with 0 ha/km of Indigenous community occupancy areas.	No lakes/rivers of cultural/historic significance or Indigenous community occupancy areas were identified along this route.	No lakes/rivers of cultural/historic significance per or Indigenous community occupancy areas were identified along this route.
			Weighted score: 3.75	**Weighted score: 3.73**	**Weighted score: 3.75**	**Weighted score: 3.18**	**Weighted score: 3.56**	**Weighted score: 3.75**	**Weighted score: 3.75**
Hunting, Trapping, and Harvesting	Effects on lands with habitat or vegetation types that support or have the potential to support hunting/trapping/harvesting activities and medicinal plants within the ROW.	**15%**	Affects 7.35 ha/km of support lands, 0.14 ha/km of trapping grounds, and 0.12 ha/km of fishing areas identified for traditional use.	Affects 7.36 ha/km of support lands, 0.14 ha/km of trapping grounds, and 0.12 ha/km of fishing areas identified for traditional use.	Affects 7.46 ha/km of support lands, 0.18 ha/km of trapping grounds, and 0.02 ha/km of fishing areas identified for traditional use.	Affects 7.47 ha/km of support lands, 0.17 ha/km of trapping grounds, and 0.06 ha/km of fishing areas identified for traditional use.	Affects 7.44 ha/km of support lands, 0.21 ha/km of trapping grounds, and 0.02 ha/km of fishing areas identified for traditional use.	Affects 7.17 ha/km of support lands with no identified trapping grounds or fishing areas within the route.	Affects 7.34 ha/km of support lands with no identified trapping grounds or fishing areas within the route.
			Weighted score: 3.75	**Weighted score: 3.73**	**Weighted score: 3.58**	**Weighted score: 2.94**	**Weighted score: 3.55**	**Weighted score: 3.75**	**Weighted score: 3.72**
Surface Water and Fisheries	Effects on aquatic habitat, including total number and length of watercourse/drain crossings within ROW.	**15%**	Traverses 0.15 ha/km of waterbodies and 0.06 km/km of watercourses.	Traverses 0.13 ha/km of waterbodies and 0.06 km/km of watercourses.	Traverses 0.10 ha/km of waterbodies and 0.05 km/km of watercourses.	Traverses 0.05 ha/km of waterbodies and 0.06 km/km of watercourses.	Traverses 0.04 ha/km of waterbodies and 0.06 km/km of watercourses.	Traverses 0.09 ha/km of waterbodies and 0.07 km/km of watercourses.	Traverses 0.11 ha/km of waterbodies and 0.08 km/km of watercourses.
			Weighted score: 3.48	**Weighted score: 3.75**	**Weighted score: 2.83**	**Weighted score: 3.05**	**Weighted score: 3.20**	**Weighted score: 3.75**	**Weighted score: 3.14**

Criterion	Metric of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Rare/Undisturbed Native Habitats/Ecosystems	Effects to undisturbed/natural communities with minimal anthropogenic influence within the ROW, excluding cultural communities and open water areas.	**15%**	Traverses 7.20 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.23 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.36 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.41 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.39 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.06 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.	Traverses 7.22 ha/km of rare or undisturbed ecosystems characterized by minimal anthropogenic influence.
			Weighted score: 3.75	**Weighted score: 3.73**	**Weighted score: 3.75**	**Weighted score: 3.72**	**Weighted score: 3.73**	**Weighted score: 3.75**	**Weighted score: 3.67**
Rare/Sensitive Species	Long-term effects on SAR and their habitat within the ROW and PSA, including potential temporary and/or permanent SAR habitat removals within the ROW.	**15%**	Affects 1,077.06 ha of SAR habitat within the ROW and 33.96 ha/km within the PSA, requiring 4.20 ha/km permanent habitat removal.	Affects 1,064.05 ha of SAR habitat within the ROW and 33.97 ha/km within the PSA, requiring 4.22 ha/km of permanent habitat removal.	Affects 1,465.97 ha of SAR habitat within the ROW and 37.29 ha/km within the PSA, requiring 4.95 ha/km of permanent habitat removal.	Affects 1,340.74 ha of SAR habitat within the ROW and 36.23 ha/km within the PSA, requiring 4.84 ha/km of permanent habitat removal.	Affects 1,258.26 ha of SAR habitat within the ROW and 35.68 ha/km within the PSA, requiring 4.61 ha/km of permanent habitat removal.	Affects 1,021.88 ha of SAR habitat within the ROW and 36.82 ha/km within the PSA, requiring 4.87 ha/km of permanent habitat removal.	Affects 1,167.92 ha of SAR habitat within the ROW and 36.89 ha/km within the PSA, requiring 4.88 ha/km of permanent habitat removal.
			Weighted score: 3.73	**Weighted score: 3.74**	**Weighted score: 3.41**	**Weighted score: 3.57**	**Weighted score: 3.75**	**Weighted score: 3.75**	**Weighted score: 3.58**
Culturally Significant Species and Protected Areas	Effects on specific species of importance including moose habitat, birch stands, and black ash stands within the ROW.	**15%**	Impacts 0.02 ha/km of moose habitat, 3.10 ha/km of birch stands, and 0.04 ha/km of black ash stands within the ROW.	Impacts 0.02 ha/km of moose habitat, 2.98 ha/km of birch stands, and 0.04 ha/km of black ash stands within the ROW.	Impacts 0.19 ha/km of moose habitat, 1.61 ha/km of birch stands, and 0.05 ha/km of black ash stands within the ROW.	Impacts 0.44 ha/km of moose habitat, 1.94 ha/km of birch stands, and 0.04 ha/km of black ash stands within the ROW.	Impacts 0.02 ha/km of moose habitat, 1.62 ha/km of birch stands, and 0.02 ha/km of black ash stands within the ROW.	Impacts 0.55 ha/km of birch stands and 0.07 ha/km of black ash stands; no moose habitat identified in the ROW.	Impacts 0.05 ha/km of moose habitat, 0.48 ha/km of birch stands, and 0.07 ha/km of black ash stands within the ROW.
			Weighted score: 3.69	**Weighted score: 3.74**	**Weighted score: 2.01**	**Weighted score: 1.75**	**Weighted score: 3.74**	**Weighted score: 3.57**	**Weighted score: 2.35**

Criterion	Metric of measurement	Criterion weight	Route A1	Route A2	Route B1	Route B2	Route B3	Route C1	Route C2
Co-Location and Repurposing of Existing Infrastructure	Length of the proposed transmission line that parallels existing infrastructure or repurposes existing transmission line corridors.	**10%**	Parallels or repurposes 0.90 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.81 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.30 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.16 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.07 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.75 km/km of existing corridors to minimize new disturbances to traditional lands.	Parallels or repurposes 0.67 km/km of existing corridors to minimize new disturbances to traditional lands.
			Weighted score: 2.50	**Weighted score: 2.25**	**Weighted score: 2.50**	**Weighted score: 1.38**	**Weighted score: 0.60**	**Weighted score: 2.50**	**Weighted score: 2.23**
Total weighted score – Indigenous Culture, Values, and Land Use category (out of 25%)			**24.66**	**24.67**	**21.83**	**19.59**	**22.13**	**24.82**	**22.43**

Table 5-12: Technical and Cost Considerations category comparative evaluation results

Criterion	Metric of measurement	Criterion weight	Alternative Route A1	Alternative Route A2	Alternative Route B1	Alternative Route B2	Alternative Route B3	Alternative Route C1	Alternative Route C2
Line Length	Total length of each alternative route.	**25%**	Total line length is 97.06 km.	Total line length is 96.47 km.	Total line length is 124.62 km.	Total line length is 117.42 km.	Total line length is 111.84 km.	Total line length is 85.05 km.	Total line length is 96.54 km.
			Weighted score: 6.21	**Weighted score: 6.25**	**Weighted score: 5.61**	**Weighted score: 5.95**	**Weighted score: 6.25**	**Weighted score: 6.25**	**Weighted score: 5.51**
Light angle and heavy angle structures	Number of light and heavy angle structures.	**10%**	Requires 9 heavy angle structures and 0.27 medium angle structures per km.	Requires 11 heavy angle structures and 0.24 medium angle structures per km.	Requires 10 heavy angle structures and 0.20 medium angle structures per km.	Requires 7 heavy angle structures and 0.24 medium angle structures per km.	Requires 7 heavy angle structures and 0.21 medium angle structures per km.	Requires 16 heavy angle structures and 0.26 medium angle structures per km.	Requires 14 heavy angle structures and 0.24 medium angle structures per km.
			Weighted score: 2.42	**Weighted score: 2.18**	**Weighted score: 1.98**	**Weighted score: 2.38**	**Weighted score: 2.45**	**Weighted score: 2.22**	**Weighted score: 2.5**
Non-Transmission Line Crossings	Total number of crossings of major waterbodies, railways, highways, pipelines, large ditches, and distribution lines.	**10%**	Requires 0 major waterbody crossings and 14 other major crossings (railways, highways, or pipelines).	Requires 0 major waterbody crossings and 10 other major crossings (railways, highways, or pipelines).	Requires 1 major waterbody crossing and 7 other major crossings (railways, highways, or pipelines).	Requires 1 major waterbody crossing and 7 other major crossings (railways, highways, or pipelines).	Requires 0 major waterbody crossings and 5 other major crossings (railways, highways, or pipelines).	Requires 0 major waterbody crossings and 6 other major crossings (railways, highways, or pipelines).	Requires 0 major waterbody crossings and 6 other major crossings (railways, highways, or pipelines).
			Weighted score: 1.89	**Weighted score: 2.50**	**Weighted score: 1.71**	**Weighted score: 1.71**	**Weighted score: 2.50**	**Weighted score: 2.50**	**Weighted score: 2.50**

Criterion	Metric of measurement	Criterion weight	Alternative Route A1	Alternative Route A2	Alternative Route B1	Alternative Route B2	Alternative Route B3	Alternative Route C1	Alternative Route C2
Transmission Line Crossings	Total number of crossings of existing 115 kV transmission lines.	**10%**	Crosses 3 existing 115 kV transmission lines.	Crosses 3 existing 115 kV transmission lines.	Crosses 0 existing 115 kV transmission lines.	Crosses 0 existing 115 kV transmission lines.	Crosses 0 existing 115 kV transmission lines.	Crosses 9 existing 115 kV transmission lines.	Crosses 7 existing 115 kV transmission lines.
			Weighted score: 2.50	**Weighted score: 2.50**	**Weighted score: 2.50**	**Weighted score: 2.50**	**Weighted score: 2.50**	**Weighted score: 1.94**	**Weighted score: 2.50**
Co-Location and Repurpose of Existing Infrastructure	Length of the proposed transmission line that parallels existing infrastructure or repurposes existing transmission line corridors.	**5%**	Parallels or repurposes 0.90 km/km of existing linear infrastructure.	Parallels or repurposes 0.81 km/km of existing linear infrastructure.	Parallels or repurposes 0.30 km/km of existing linear infrastructure.	Parallels or repurposes 0.16 km/km of existing linear infrastructure.	Parallels or repurposes 0.07 km/km of existing linear infrastructure.	Parallels or repurposes 0.75 km/km of existing linear infrastructure.	Parallels or repurposes 0.67 km/km of existing linear infrastructure.
			Weighted score: 1.25	**Weighted score: 1.12**	**Weighted score: 1.25**	**Weighted score: 0.69**	**Weighted score: 0.30**	**Weighted score: 1.25**	**Weighted score: 1.11**
Other Facilities/ Infrastructure Considered	Number of registered airstrips within 1,000 m of the centreline and number of buildings with 200 m of the centreline.	**5%**	Located near 3 airstrips and 0.27 buildings per km within 200 m of the centreline.	Located near 3 airstrips and 0.21 buildings per km within 200 m of the centreline.	Located near 1 airstrip and 0.01 buildings per km within 200 m of the centreline.	Located near 0 airstrips and 0 buildings per km within 200 m of the centreline.	Located near 0 airstrips and 0 buildings per km within 200 m of the centreline.	Located near 0 airstrips and 0.73 buildings per km within 200 m of the centreline.	Located near 0 airstrips and 0.37 buildings per km within 200 m of the centreline.
			Weighted score: 1.18	**Weighted score: 1.25**	**Weighted score: 0.78**	**Weighted score: 1.25**	**Weighted score: 1.25**	**Weighted score: 1.10**	**Weighted score: 1.25**
Real Estate Considerations	Real estate and land acquisition considerations and associated project costs.	**15%**	Affects 0.11 property parcels per km and 155.82 ha of land, with 0.05 commercial buildings within the ROW per km.	Affects 0.09 property parcels per km and 149.96 ha of land, with 0 commercial buildings within the ROW.	Affects 0.22 property parcels per km and 109.89 ha of land, with 0 commercial buildings within the ROW.	Affects 0.24 property parcels per km and 108.55 ha of land, with 0 commercial buildings within the ROW.	Affects 0.04 property parcels per km and 3.21 ha of land, with 0 commercial buildings within the ROW.	Affects 1.16 property parcels per km and 157.48 ha of land, with 0.04 commercial buildings within the ROW per km.	Affects 0.90 property parcels per km and 139.53 ha of land, with 0 commercial buildings within the ROW.
			Weighted score: 3.44	**Weighted score: 3.75**	**Weighted score: 1.71**	**Weighted score: 1.70**	**Weighted score: 3.75**	**Weighted score: 3.32**	**Weighted score: 3.75**

Criterion	Metric of measurement	Criterion weight	Alternative Route A1	Alternative Route A2	Alternative Route B1	Alternative Route B2	Alternative Route B3	Alternative Route C1	Alternative Route C2
Overall Constructability	Features that increase the complexity of construction planning, including terrain/slope, flexibility for future refinements, and circuit outage requirements that would need to be considered during construction. Construction access roads are also factored into this measure.	**20%**	Includes 0.04 non-parallel property parcels per km, constructability rank of 1, and requires 1 outage.	Includes 0.04 non-parallel property parcels per km, constructability rank of 2, and requires 1 outage.	Includes 0.21 non-parallel property parcels per km, constructability rank of 1, and requires 0 outages.	Includes 0.22 non-parallel property parcels per km, constructability rank of 2, and requires 0 outages.	Includes 0.04 non-parallel property parcels per km, constructability rank of 3, and requires 0 outages.	Includes 0.65 non-parallel property parcels per km, constructability rank of 1, and requires 2 outages.	Includes 0.36 non-parallel property parcels per km, constructability rank of 1, and requires 1 outage.
			Weighted score: 5.00	**Weighted score: 3.60**	**Weighted score: 3.34**	**Weighted score: 3.04**	**Weighted score: 4.05**	**Weighted score: 3.50**	**Weighted score: 4.67**
Total weighted score – Technical and Cost Considerations category (out of 25%)			**23.89**	**23.16**	**18.87**	**19.22**	**23.05**	**22.08**	**23.79**

Table 5-13: Total weighted scores – Segment A

Category	Route A1	Route A2
Natural Environment	24.58 Less Preferred	24.92 More Preferred
Socio-Economic Environment	22.72 Less Preferred	24.40 More Preferred
Technical and Cost Considerations	23.89 More Preferred	23.16 Less Preferred
Indigenous Culture, Values, and Land Use	24.66 Less Preferred	24.67 More Preferred
Overall weighted score	**95.85 Less Preferred**	**97.15 More Preferred**

Table 5-14: Total weighted scores – Segment B

Category	Route B1	Route B2	Route B3
Natural Environment	22.16 Less Preferred	23.03 Less Preferred	24.15 More Preferred
Socio-Economic Environment	19.38 Less Preferred	18.09 Less Preferred	20.53 More Preferred
Technical and Cost Considerations	18.87 Less Preferred	19.22 Less Preferred	23.05 More Preferred
Indigenous Culture, Values, and Land Use	21.83 Less Preferred	19.59 Less Preferred	22.13 More Preferred
Overall weighted score	**82.24 Less Preferred**	**79.93 Less Preferred**	**89.86 More Preferred**

Table 5-15: Total Weighted Scores – Segment C

Category	Route C1	Route C2
Natural Environment	24.46 More Preferred	23.88 Less Preferred
Socio-Economic Environment	20.90 Less Preferred	23.50 More Preferred
Technical and Cost Considerations	22.08 Less Preferred	23.79 More Preferred
Indigenous Culture, Values, and Land Use	24.82 More Preferred	22.43 Less Preferred
Overall weighted score	**92.26 Less Preferred**	**93.60 More Preferred**

5.6. Summary of comparative evaluation

After comparing and evaluating the alternative routes, the route that best balances all the elements Hydro One must consider was selected. These elements include considerations for the Indigenous Culture, Values, and Land Use; Natural Environment; Socio-Economic Environment; and Technical and Cost Considerations criteria.

When alternative routes are closely scored, Hydro One recognizes it can be difficult to see one route selected over another, particularly when different options have strengths in different areas. Selecting a route that strikes the best overall balance of all the criteria that are considered is the optimal choice. The goal of the comparative evaluation is to build a transmission line that carefully balances technical, environmental, cultural, and social considerations, guided by continued feedback with various people including community members, landowners, and Indigenous communities.

5.6.1. Segment A preferred alternative: Route A2

Overall, Route A2 is preferred for Segment A. Route A2 is preferred in the Indigenous Culture, Values, and Land Use; Socio-Economic Environment; and Natural Environment categories. This route is particularly advantageous from the social and cultural perspectives because it is expected to result in less disruption to existing businesses and cultural heritage features.

Socio-Economic Environment: Route A2 avoids more commercial, industrial, institutional, and recreational business buildings and properties compared to Route A1. It also ranks higher in the Built Heritage and Archaeological Resources criteria by avoiding more known or potential cultural heritage features.

Natural Environment: Route A2 is preferred as it results in less physical interaction with mapped waterbodies and wetlands and maintains a smaller footprint within potential SAR habitat.

Indigenous Culture, Values, and Land Use: Route A2 is preferred overall. Route A2 is preferred for the protection of Rare, Undisturbed Native Habitats and the avoidance of Culturally Significant Species.

Technical and Cost Considerations: Route A1 was technically preferred in this segment, largely due to flatter terrain, overall constructability, and fewer anticipated challenges for

constructing access roads. Route A1 also benefits from a higher level of infrastructure co-location. However, Route A2 has less impacts to landowners and has a shorter line length.

5.6.2. Segment B preferred alternative: Route B3

Overall, Route B3 is preferred for Segment B. Route B3 is preferred in all four categories, with the strongest preference in the Technical and Cost Considerations category due to its shorter length, lesser property impacts, and greater flexibility for tower placement.

Socio-Economic Environment: This category was an important differentiator for Route B3 due to its avoidance of active mining sites and forestry operations. Notably, Route B3 is the highest-performing route for Residential Properties, as it contains zero residential buildings within the proposed ROW or PSA.

Natural Environment: Route B3 is preferred in this category. The primary advantage is the avoidance of wetlands and a smaller area of mapped waterbodies within the ROW compared to Routes B1 and B2.

Indigenous Culture, Values, and Land Use: Route B3 is preferred as it avoids more moose habitat and black ash stands than the other alternative routes. It also ranks higher for Surface Water and Fisheries due to the smaller area of mapped waterbodies within its ROW.

Technical and Cost Considerations: Route B3 offers significant advantages in this category, particularly in the Real Estate Considerations criterion. It impacts significantly fewer property parcels and has a smaller total area of impact compared to Routes B1 and B2. It is also preferred for constructability, offering the most direct path and the greatest flexibility for tower placement.

5.6.3. Segment C preferred alternative: Route C2

Overall, Route C2 is preferred for Segment C. Route C2 scored meaningfully higher in the Socio-Economic category, particularly because it involves significantly less disruption to people and communities as well as impacts to landowners. While Route C1 scored slightly higher in the Indigenous Culture, Values, and Land Use and Natural Environment categories, the differences between the two routes were relatively minor in the context of the broader Project.

Socio-Economic Environment: Route C2 is better avoids properties with known/potential heritage value as well as commercial and industrial buildings. It also avoids active mining sites and mining claims.

Natural Environment: Route C1 scored marginally higher compared to C2 in this category. Route C1 has less surface water features and wetlands within its ROW and a reduced area of potential SAR habitat disturbance than Route C2. However, Route C2 extends through an area with fewer designated natural areas and has a lower density of incompatible vegetation within its ROW.

Indigenous Culture, Values, and Land Use: Route C1 is the preferred alternative for this category. This is primarily due to its greater avoidance of moose habitat and fewer interactions with surface water features. It is noted the additional area of moose habitat within the ROW of Route C2 is relatively small compared to the area avoided through selection of Route B3.

Technical and Cost Considerations: This category favors Route C2, largely due to constructability and in particular, flexibility for tower placement. Route C1 also impacts less properties and includes less crossings of existing transmission lines.

5.7. Technically preferred alternative route

Overall, Routes A2, B3, and C2 (**Figure 5-6**) comprise the preferred route. This alignment provides a balanced approach to minimizing overall effects and costs relative to the other alternative routes.

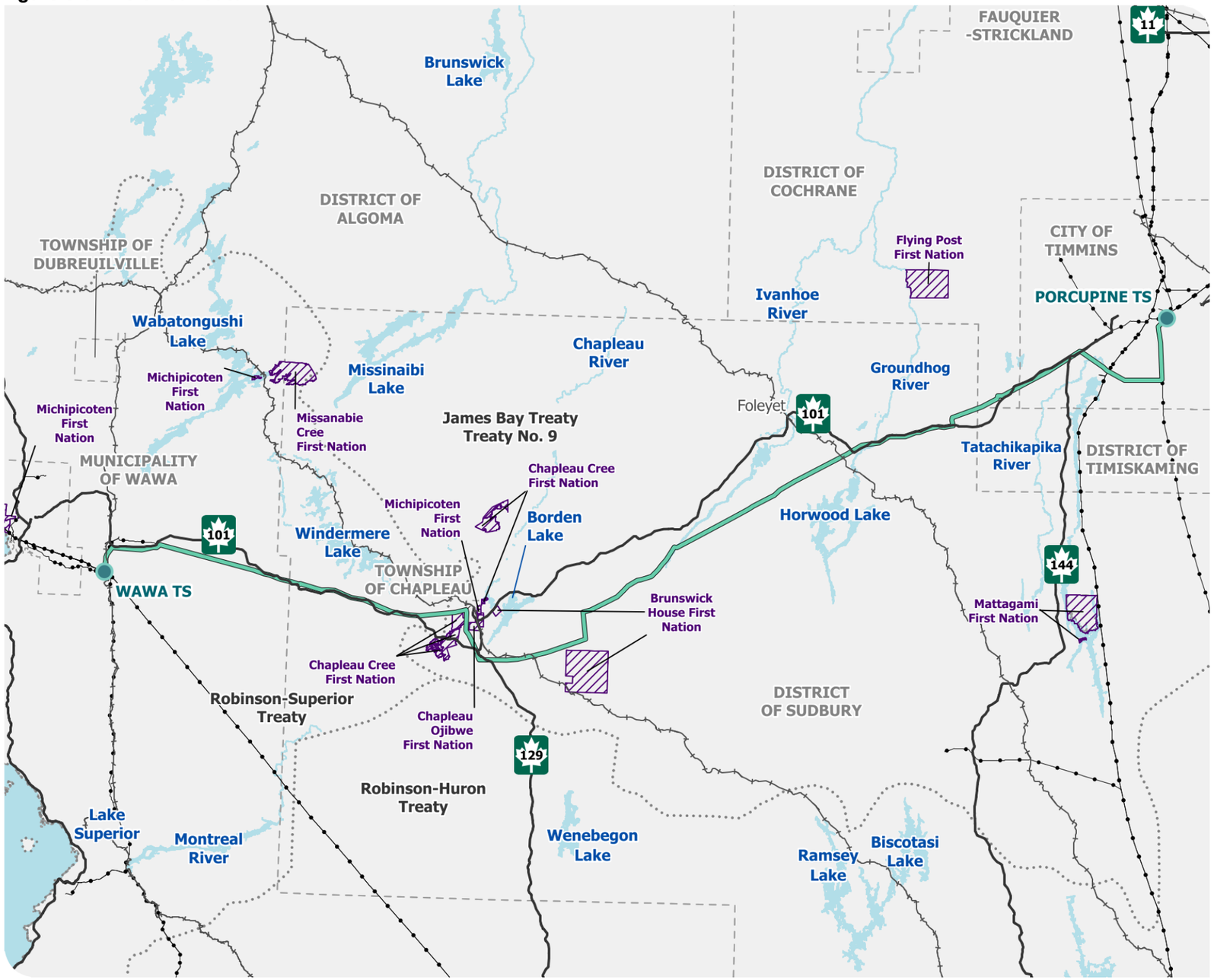
With regards to the Natural Environment, the preferred route minimizes physical interaction with mapped waterbodies and results in less wetland area removal, particularly through the selection of Routes A2 and B3. This alignment also performs well in terms of avoidance of SAR and potential SAR habitat by reducing the overall footprint within suitable habitat areas compared to the other alternative routes.

From a Socio-Economic perspective, an advantage of the preferred route is avoidance of BHRs, CHLs, and areas of archaeological potential. The preferred route also minimizes effects on residential and commercial properties, most notably in Segment B where Route B3 has no residential buildings within its ROW. Furthermore, the selection of Routes B3 and C2 protects regional economic interests by minimizing conflicts with active mining claims and forestry operations.

With regards to Indigenous Culture, Values, and Land Use, key advantages of the preferred route include avoidance of surface water, fisheries, and culturally significant species. The selection of Routes A2 and B3 reduces potential impacts on culturally significant species such as moose and birch.

From a Technical and Cost Considerations perspective, the preferred route takes advantage of the combined efficiencies of Route B3's shorter line length and Route C2's constructability advantages. This alignment is also strongly preferred in terms of real estate considerations, with Routes A2, B3, and C2 all resulting in less property impacts than the alternatives within the respective segments.

Figure 5-6: Preferred route



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

Preferred Route
FIGURE 5-6

- Existing Transformer Station (TS)
- Preferred Route

Base Data

- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:850,000

0 10 20 40 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter5.aprx; LAYOUT: 251043_ESR14_CH05_PreferredRoute

6.0 Project description

As outlined in **Section 1.2**, the IESO identified the need for additional transmission capacity in Ontario's northeast in its report, "Need for Northeast Bulk System Reinforcement" (October 2022). The report recommended new transmission infrastructure, including a transmission line connecting the existing Wawa TS and the existing Porcupine TS. On November 28, 2024, Hydro One received an OIC to have the Project incorporated into Hydro One's transmission license and designated the Project as a priority transmission project. In December 2024, the MEM designated Hydro One as the proponent for a new single-circuit 500 kV transmission line extending from the vicinity of the Wawa TS near Wawa to the Porcupine TS in Timmins. The purpose of this new transmission line is to:

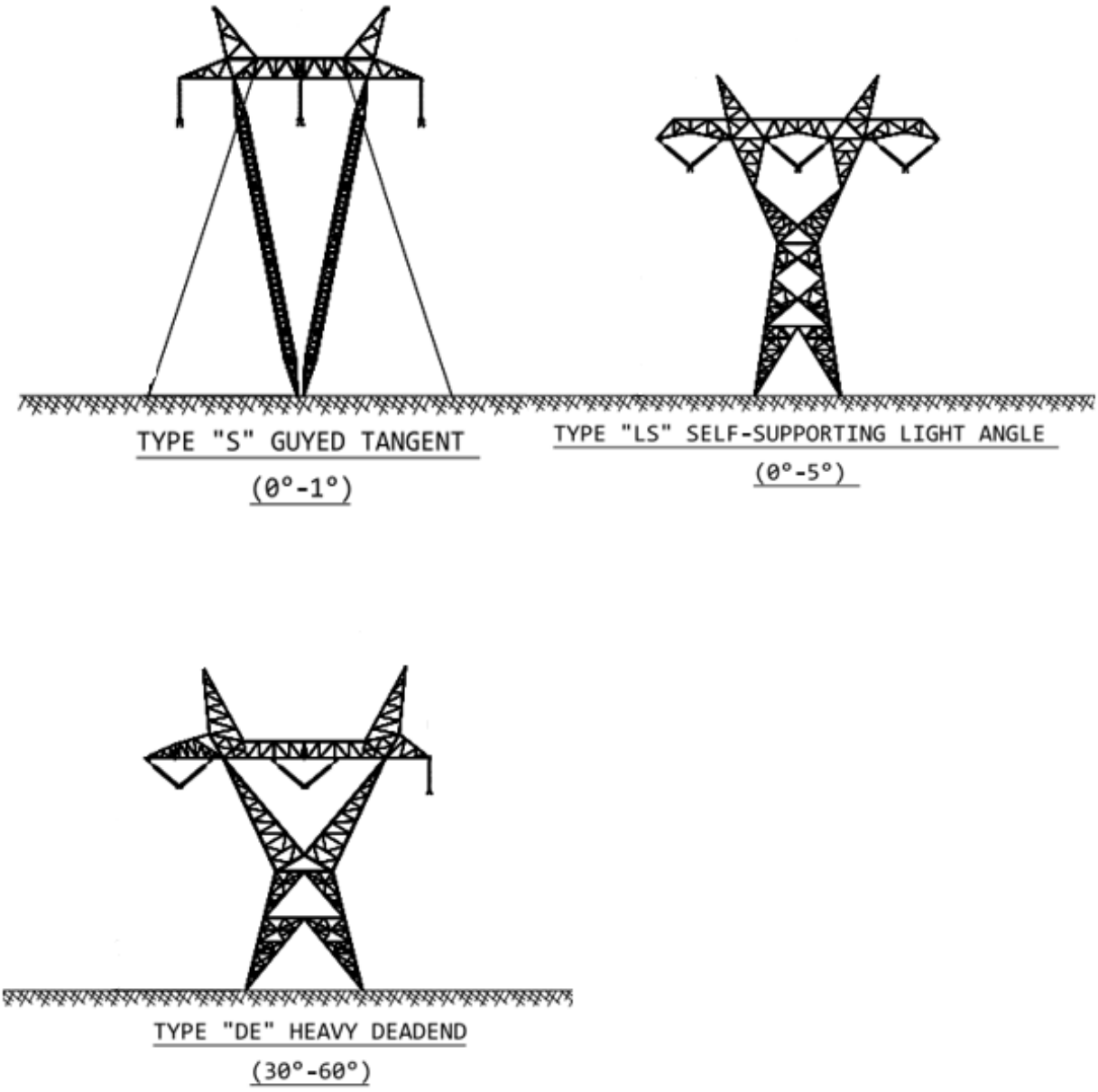
- Improve reliability for existing and future electricity needs in the Timmins area;
- Reinforce the transmission system in northeast Ontario and support the growing electricity demands of communities, industries, businesses, and residents; and
- Strengthen the connection between the northeast and northwest and improve overall resiliency of the northern Ontario transmission network.

The Project will primarily utilize lattice steel transmission towers. This structure type has been selected for its proven performance in navigating long spans and challenging terrain typical of northern Ontario. The ROW required for this configuration is 75 m in total width (i.e., 37.5 m from either side of the centreline). While the final designs are subject to detailed engineering, **Figure 6-1** provides a preliminary and illustrative example of the proposed transmission towers.

To facilitate the connection of the new transmission line, the Project will also involve establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS. The approximate location of the 500 kV TS site near the Wawa TS and the Porcupine TS upgrades are shown in **Figure 6-2** and **Figure 6-3**, respectively. These works can be summarized as follows; further details are provided in **Section 6.2**:

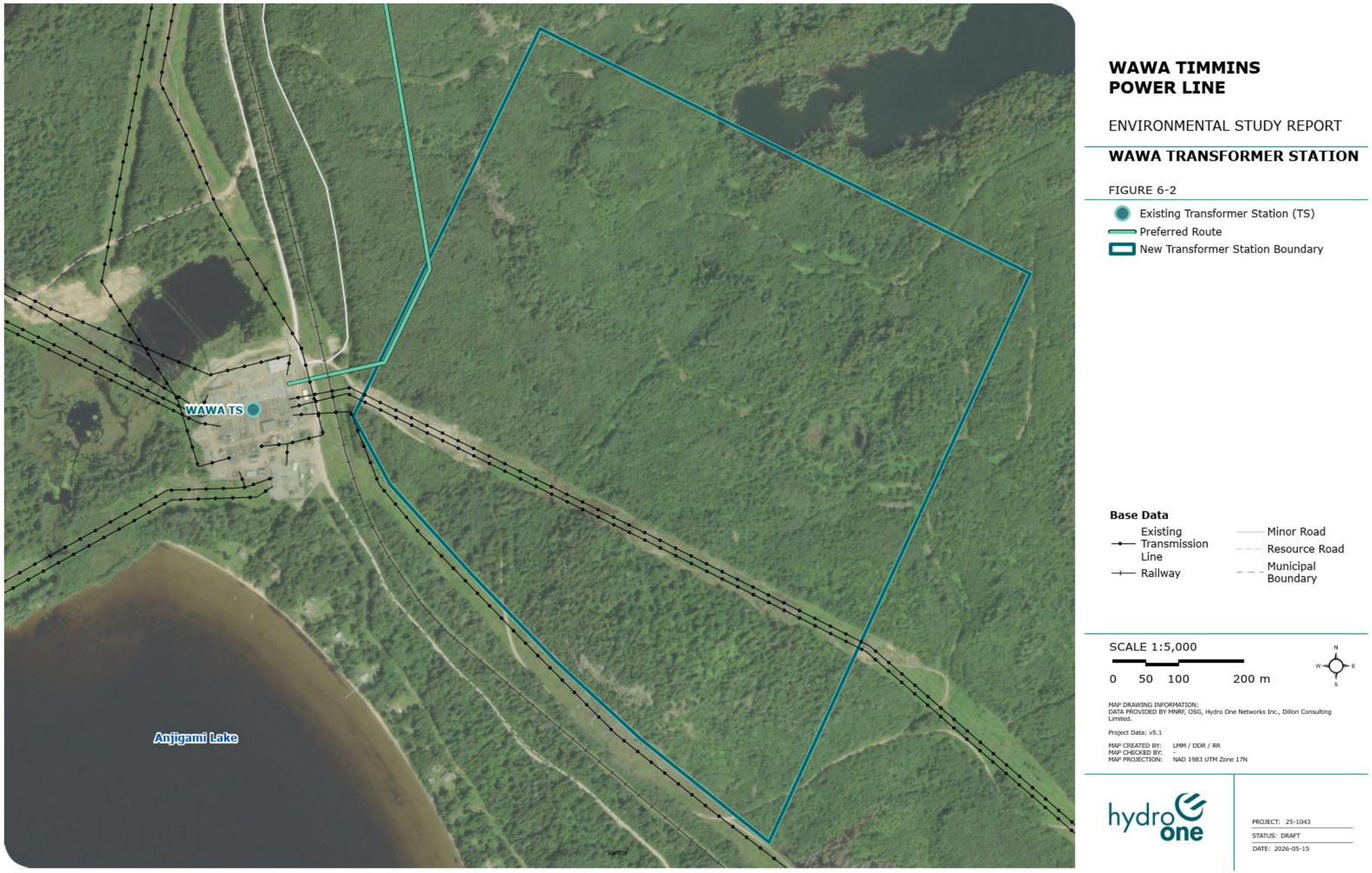
- Upgrades to the existing Wawa TS will be required to accommodate the connection of the new Wawa Timmins Power Line. These upgrades involve adjusting and relocating existing power line connections and installing new equipment so the new transmission line can be safely integrated into the electricity system;
- A proposed 500 kV TS is planned to be developed near the existing Wawa TS to support the Wawa Timmins Power Line and future system needs. The TS will be constructed in two stages as outlined in **Section 6.2.3**; and
- Upgrades are planned at the existing Porcupine TS to support the connection of the Project. The work will include expanding the station area, relocating and modifying some existing facilities, constructing new support and relay buildings, and restoring the site once construction is complete. These upgrades are required to safely and reliably integrate the new power line into the regional electricity network. A future phase of work at the Porcupine TS will be required to accommodate higher capacity operation of the Project. This would involve connecting the 500 kV line to new station facilities as part of planned long-term system expansion.

Figure 6-1: Example of transmission structures proposed for the Project[14]



[14] Transmission structures are subject to change following detailed design. It is anticipated that the Type “S” Guyed Tangent will be the most frequent transmission structure used for the Project.

Figure 6-2: Existing Wawa TS and future 500 kV Wawa TS site[15]



[15] The area in Figure 6-2 is the proposed site for the future 500 kV Wawa TS. The final footprint and specific location of the TS within this site will be confirmed during the detailed design phase.

Figure 6-3: Porcupine TS upgrade



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

PORCUPINE TRANSFORMER STATION
FIGURE 6-3

- Existing Transformer Station (TS)
- Preferred Route
- Porcupine Transformer Station Expansion

Base Data

- Existing Transmission Line
- Minor Road
- Municipal Boundary

SCALE 1:3,500

0 40 80 160 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR / RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-06

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter6.aprx; LAYOUT: 251043_ESR16_CH06_PorcupineTS

6.1. Design phase

Following completion of the Class EA process, detailed engineering and design for the proposed Project will be undertaken. The final design plans will be based on necessary studies, including geotechnical surveys, archaeological investigations, and consultation with stakeholders. Concurrent with finalization of the design, required permits, licences, and approvals, as listed in **Section 1.6.1**, will be obtained. Hydro One will also finalize restoration plans in consultation with appropriate stakeholders and the local communities, as necessary.

Hydro One recognizes a changing climate is likely to result in an increase of unusual weather patterns and severe weather events, which could potentially damage or adversely affect infrastructure and other public facilities. The Class EA for TF requires proponents to consider the potential effects of climate change in the design, siting, construction, and operation of TFs, and encourages the use of provincial, national, and international best practices. Hydro One facilities being planned for this Project will be engineered to adequately withstand the effects of climate change. Climate change considerations are discussed further in **Section 7.5.2.1**.

6.2. Construction phase

Construction activities will be carried out in accordance with Hydro One construction standards, environmental and safety guidelines, and Project-specific procedures, in addition to applicable provincial and international requirements. The key documents that will guide construction include Hydro One Line Design and Line Standards related to construction methods, hardware, grounding, foundations, clearances, and quality assurance. Further details on construction standards, oversight, and works planned during the construction phase are provided in the following sections.

6.2.1. Standards and oversight

Construction contractors and subcontractors will be required to adhere to the following standards for safe, compliant, and environmentally responsible construction practices:

- Relevant Canadian Standards Association (CSA) standards for insulators, conductor materials, hardware, electromagnetic noise, and overhead systems;

- Institute of Electrical and Electronics Engineers (IEEE) standards for conductor installation, structure assembly, inspection, and energized maintenance (e.g., IEEE 524, 951, 1441, and 516);
- International Electrotechnical Commission (IEC) standards applicable to construction testing and live working (such as IEC 60652 and IEC 61472);
- American Society for Testing and Materials (ASTM) A394 and associated CSA/Limited Smoke hardware and materials requirements; and
- Ontario Provincial Standard Specifications (OPSSs) governing erosion and sediment control, dewatering, excess materials management, dust control, seeding, and waterbody protection (including OPSS 180, 182, 185, 506, 517, 518, 804, and 805).

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

In addition, a Project-specific EMS will be prepared prior to construction to outline specific requirements to be followed for the proposed Project. The EMS will include a series of plans for the construction phase such as fuel storage and handling plans and erosion and sediment control plans. Further details on the required plans and mitigation measures for the Project are provided in **Section 7.10**.

A dedicated team of qualified environmental monitors and inspectors, under the direction of a lead Environmental Manager, will be responsible for verifying that construction activities conform to the EMS. The frequency and intensity of on-site monitoring will be determined by the specific construction activity, its location and the associated environmental risk. The monitors will conduct regular inspections and be on-site for all environmentally sensitive work as defined by the EMS. This approach will allow the team to manage environmental issues, address any unforeseen effects in a timely manner, and provide recommendations for mitigation.

Should any archaeological finds be uncovered during construction, work in the vicinity of the discovery will be required to stop immediately pending:

- Assessment by the archaeologist for the Project; and
- Further consultation with the MCM – Heritage Program Unit, as well as the appropriate Indigenous communities.

Further details on mitigation measures for archaeological resources are provided in **Section 7.2.1**.

6.2.2. Transmission line

Construction of the new single-circuit 500 kV transmission line will involve the following activities:

- Mobilization and demobilization to the site;
- Development and maintenance of laydown yards until completion of construction;
- Construction staking;
- Site preparation including clearing as required (selective clearing or trimming outside the ROW width to maintain trees fall-over clearances) and grading;
- Developing construction access routes (i.e., building or upgrading temporary and permanent access roads to each structure location);
- Constructing crossings for rivers, streams, wetlands etc., as required, by using culverts, temporary or permanent bridges, ice/snow bridges during frozen season, rig mats, and log fills (only where appropriate);
- Installing foundations at the new structure locations, which may include excavations, blasting of rocks, rebar placement, installation of anchor bolts, soil/rock anchors, concrete placement, backfilling, and compaction;
- Assembly and installation of the transmission structures onsite;
- Stringing new transmission conductors (wires) on the structures and installation of associated equipment;
- Stringing, sagging, clipping, splicing/splice boxes, and testing of two optical ground wires;
- Installation of grounding via counterpoise installed horizontal to the surface or grounding wells installed vertically into the ground, both within the ROW;
- Installation of spacers, dampers, marker balls, other line hardware and structure markings;
- Installation, testing, and commissioning of repeater station(s); and
- Final inspections, testing, commissioning, and energization of the transmission line.

6.2.3. Wawa TS

Upgrades to the Wawa TS will involve the following activities:

- Site preparation including clearing and grading;
- Development and maintenance of laydown yards until completion of construction;
- Modification and relocation of existing circuits;
- Installation of new Wawa Timmins Power Line circuit;
- Installation of foundations at the new structure locations; and
- Installation of major station equipment including bus work, breaker, disconnect switches, and associated grounding work.

The first stage of construction of the 500 kV yard and connection at the Wawa TS will involve the following activities:

- Site preparation including clearing and grading;
- Installation of foundations at the new structure locations;
- Construction of new autotransformers, bus work, and associated equipment;
- Construction of the drainage system and oil water separator; and
- Rerouting of the Wawa Timmins Power Line into the new 500 kV yard.

The ultimate stage of the future 500 kV yard and connection at the Wawa TS will include additional autotransformers, breakers, and associated facilities.

6.2.4. Porcupine TS

Upgrades to the Porcupine TS will involve the following activities:

- Site preparation including clearing and grading;
- Development and maintenance of laydown yards until completion of construction;
- Potential bedrock excavation, involving controlled blasting, to accommodate the proposed expansion;
- Expansion of the 230 kV switchyard beyond the existing fence line;
- Installation of a new septic bed or city sewer/water connection;
- Expansion of the subgrade drainage system;
- Installation of foundations at the new structure locations;
- Removal of the existing communication building;
- Construction of a new 230 kV relay building;
- Installation of circuit breakers and associated equipment; and

- Relocation of existing infrastructure onsite.

Construction of the 500 kV connection at the Porcupine TS will involve expansion of the existing switchyard footprint beyond the existing fence line, extending bus work to connect to the new terminal, and rerouting of the Wawa Timmins Power Line to the new 500 kV terminal.

6.2.5. Access and ancillary components

This section outlines specific activities required for access roads (access to, and within the ROW), as well as ancillary components. The term “ancillary component” is used to refer to all other activities that may require occupation or use of areas outside the ROW.

Ancillary components could include:

- Storage, laydown, tower erection, and temporary fly yards (including helicopter pads);
- Construction camps and offices;
- Connections to existing distribution circuits;
- Fuelling and maintenance areas;
- Aggregate sites; and
- Concrete production and batch plants.

Ancillary components may be modified during detailed design of the Project. Any additions or deviations from preliminary planning will be limited to areas that are of a similar or less sensitive environmental setting.

6.2.5.1. Temporary and permanent access roads

Temporary access roads will be required to transport Project personnel, equipment, and materials to and along the ROW for the construction of the Project. Specifically, access roads will support clearing, site preparation, construction and erection of towers utilizing heavy equipment, site clean-up, and restoration.

Some temporary access roads for the construction phase may become permanent access roads for use during the operations phase of the Project. During the operations phase, lighter vehicles would use the roads to conduct inspections, maintenance, emergency repairs, and vegetation management. The need and location for which access roads are

required to become permanent for the operations phase will be determined at a later stage (e.g., detailed design) of the Project and further discussed with the MNR during permitting.

To limit vegetation clearing and ground disturbance, Hydro One will prioritize the use of the ROW and existing roads and trails for access where feasible. The use of existing roads will require ongoing monitoring and maintenance to verify that Project-related impacts are mitigated accordingly. In some cases, these roads may require upgrades, widening, or improvements. In the event there are segments of the new ROW that cannot be accessed by existing roads or trails, new access roads will be constructed. The specific number, location, and characteristics of existing and proposed new access roads to be used for the Project will be finalized as part of design with input from Indigenous communities, Hydro One's construction contractor, and stakeholders.

Temporary access roads for construction will be approximately 8 m wide within a vegetation clearing zone of up to 20 m. The vegetation clearing zone is required to provide sufficient space for ditches as well as cut and fill areas (depending on local terrain) and sufficient sight lines for road safety. Existing roads and trails will be used as construction access roads, where feasible, and may require improvements, including widening up to approximately 8 m wide within a vegetation clearing zone of up to 20 m. Ground access for transporting materials, equipment, and personnel may be supplemented by helicopter transport in select areas.

Timber may be used as corduroy to support the road subgrade or as fill in the subgrade to facilitate road construction over soft soils and in uneven terrain. Use of corduroy will also facilitate the maintenance of surface water drainage patterns under the road surface, as appropriate.

Blasting may be required for some specific activities, which is contingent upon terrain. Where blasting is required, Hydro One will comply with regulatory requirements and best industry practices to protect nearby communities, wildlife, and fish.

During the finalization of the access plan, any additions or deviations from preliminary access planning will be limited to areas that are of a similar or less sensitive environmental setting. All access roads will be designed and constructed in compliance with applicable legislation, regulations, guidelines [e.g., Environmental Guidelines for Access Roads and Water Crossings (MNR, 1990)] and requirements identified in permits and authorizations.

AAs will be completed to identify and protect archaeological resources ahead of road building and existing road upgrades, widening, or improvement activities.

Temporary access roads that are required only for construction access will be restored following construction, including those within the Project ROW. Gates and fencing for both temporary and permanent access roads may be used by Hydro One for safety purposes and will be discussed with Indigenous communities and stakeholders.

6.2.5.2. Access road waterbody crossings

Waterbody crossings for access roads will be required for the Project. This will include the installation of culverts, clear-span bridges, ice bridges, snow fills, or rig mats/plates at an access road crossing of waterbodies. Where the overhead transmission line will cross waterbodies, but no equipment or vehicle crossings are required, no access roads or in-water crossing structures will be required.

The number of waterbody crossings required will be minimized to the greatest extent practicable by conducting a field screening and assessment of access requirements. The assessment will emphasize using existing waterbody crossings or working around the waterbodies (without crossing) where possible during construction.

The following types of waterbody crossing structures are required for the Project:

- Clear-span structures, which include:
  - Clear-span bridges that are installed across a waterbody with the bridge deck supported on abutment type structures, if required, located above the ordinary high water mark and out of the bed and bank of the waterbody; and
  - Rig mats or plates, which are rigid, portable platforms used to support construction equipment, which function as a temporary clear-span bridge over small waterbodies (i.e., they span bank to bank of the waterbody).
- Ice bridges: Temporary bridges used during winter construction to travel over frozen waterbodies where the snow is cleared and water is added to strengthen the crossing;
- Snow fills: Temporary bridges used during winter construction to travel over frozen waterbodies, where the snow is gathered from the surrounding area and is then formed and compacted between the two banks of the waterbody to create a crossing;

- Culverts: Tunnel-like structures or pipes installed in the bed of the waterbody to maintain water flow under the access road. The length, diameter, and type of culvert selected will consider site-specific conditions such as the width of the waterbody crossing, fish habitat characteristics, substrate type and flow characteristics of the waterbody. Culverts will be sized to accommodate the estimated peak flow and aligned parallel to the waterbody channel on a straight section of uniform gradient. Temporary flow isolation methods (e.g., dam and pump bypass) will be used for the installation and removal of culverts where surface water and fish may be present at the time of construction.

The type of crossing and construction method will be determined on a case-by-case basis and will be chosen based on fish habitat characteristics with lower sensitivity, width of the waterbody and duration of crossing, fish timing windows, and in discussion with regulators, as appropriate. Crossing types and construction methods for installation and removal will be finalized as part of the Project design.

Regulatory approvals/permits will be obtained from the applicable regulatory agencies (e.g., MNR, DFO) prior to installation of the temporary or permanent waterbody crossing structures. Waterbody crossings will be constructed and operated to conform with the following guidelines, including the use of sediment and erosion control measures to protect waterbodies:

- DFO Measures to Avoid Causing Harm to Fish and Fish Habitat Including Aquatic Species at Risk (DFO, 2016); and
- MNR Environmental Guidelines for Access Roads and Water Crossings (MNR, 1990).

Vegetation clearing will be limited to the extent practicable at waterbody crossings in accordance with industry best management practices and government agency guidelines. For temporary access roads, crossing structures will be removed following completion of the construction of the Project, and the bed and banks of the waterbody restored and stabilized to prevent erosion where required.

6.2.5.3. Storage yards, laydown yards, and temporary fly yards

Contractors will minimize the number of storage, laydown, and temporary fly yards to those required to efficiently and safely construct the Project. These yards will be required to

receive and store materials and equipment needed for construction along the transmission line. The storage, laydown, and temporary fly yards will vary in size. Materials, equipment, and supplies from the storage yards will be transported by truck to laydown yards or to structure locations within the ROW, as required. Hydro One's construction contractor may choose to transport materials by helicopter to structure locations not accessible by ground vehicle. Permits and/or authorizations for the storage yards will be obtained prior to their use, where applicable.

Existing fly yards located remotely from the corridor for helicopter use will also be used for the Project where transport of materials for assembly/erection of towers is required.

If possible, existing yards will be utilized to minimize further disturbances. The laydown yards will be cleared of vegetation, grubbed, and may be graded with placement of a gravel surface to allow for safety and stability. The laydown yards may be equipped with perimeter lighting and fencing for safety and security. Examples of materials stored at the laydown yards include lattice tower components, poles, anchoring and guy wire material, structure materials, conductor reels, fuel, insulators and conductor fittings, and miscellaneous tools and equipment needed in support of construction.

Locations of low environmental sensitivity will be prioritized for these areas, such as existing cut blocks or previously established or disturbed areas/commercial sites. Where such sites are unavailable, other areas that are of a similar or lower environmental sensitivity as the ROW will be used. Locations near the ROW will be prioritized, where feasible.

Locations will be determined during detailed design and construction planning stages of the Project.

6.2.5.4. Construction camps and offices

Accommodation for the construction workforce will be provided through use of temporary construction camps that will be established along the transmission line or near the ROW. The final area required for each construction camp will ultimately be determined by the contractor, with consideration of site characteristics and environmental constraints. It is likely construction offices and/or camps will be located adjacent to storage yards, laydown yards and temporary fly yards.

Locations of low environmental sensitivity will be prioritized for these areas, such as existing cut blocks or previously established or disturbed areas/commercial sites. Where such sites are unavailable, other areas that are of a similar or lower environmental sensitivity as the ROW will be used. Locations near the ROW will be prioritized.

It is anticipated that potable water for most camps will be obtained from groundwater wells or hauled in and stored on site if a well is not a viable option. Domestic wastewater will be managed as part of an approved on-site septic system or stored on site and then transported by tanker truck for disposal to an existing licenced municipal wastewater treatment facility. Permits and authorizations will be acquired for taking of groundwater, construction of septic systems, and for the transport and disposal of wastewater, as required. Based on the Project, it is expected that approximately two to three construction camps will be developed, however, the number, area, location, and elements of camps will be confirmed during the detailed design and construction planning for the Project.

Each construction camp may include the following typical elements:

- Accommodations (bunkhouse) for workers;
- Kitchen and dining hall;
- First aid station;
- Communications system;
- Wastewater treatment holding tank and/or treatment system;
- Groundwater supply well, or potable water storage;
- Solid waste (hazardous and non-hazardous) handling and storage facility, including a designated waste recycling area;
- Electricity supply from diesel generators and/or connecting to the existing distribution grid; and
- Aboveground fuel storage tanks and refuelling area.

In addition, Hydro One's construction contractor will establish temporary construction offices and communications. The construction offices will be decommissioned and/or returned to existing uses following completion of construction. Offices may also be leased or rented and may be located in the Municipality of Wawa, Township of Chapleau, the City of Timmins, or near laydown yards, construction camps, storage yards, or other temporary facilities.

Locations of camps and offices will be determined during detailed design and construction planning stages of the Project.

6.2.5.5. Fuelling and maintenance areas

During construction, fuel designated for use by construction equipment will be transported by tanker trucks or in drums to designated fuelling areas established at laydown yards, storage yards, and/or construction camps, where steel aboveground storage tanks with secondary containment systems are located. The aboveground storage tanks will be registered under and installed and maintained in compliance with applicable federal and provincial legislation. Aboveground storage tanks will meet the Canadian Council of Ministers of the Environment Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (Canadian Council of Ministers of the Environment (CCME), 2003). Transport, storage, and handling will comply with the Ontario *Technical Standards and Safety Act*, 2000 and Canada's *Transportation of Dangerous Goods Act*, 1992. The transport vehicles used for fuel will be licenced and maintained according to safety requirements.

Fuelling areas within laydown areas and/or construction camps may include concrete pads, drainage controls, and security fencing to restrict access and prevent accidental collisions. Equipment with reduced mobility, such as heavy lift cranes and excavators, will have fuel delivered by a mobile refuelling vehicle or portable transfer tank, and refuelling will take place onsite. The fuel transfers will follow safety and environmental operational procedures to prevent leaks and spills. Spill response kits will be available on the vehicles used to transport fuel and at designated fuel storage and dispensing areas. Vehicles will be fuelled at the camps or in designated areas setback a minimum of 30 m from an environmentally sensitive area or waterbody. Fuelling stations will be inspected regularly to avoid accidental release of fluids.

6.2.5.6. Aggregate sites

New access roads will be built as close as possible to the natural terrain contours to limit the amount of earthworks and aggregate material required for road surfaces. Laydown yards, storage yards, and camps will also be graded in a manner that minimizes the volume of aggregate needed for construction. Aggregate may also be required to upgrade existing access roads, for concrete mixing, and for transmission structure foundations.

The total quantity of aggregate required will be estimated during detailed design, recognizing that ground conditions at the time of construction will impact the total volume of potential aggregate required. Hydro One's construction contractor plans to source aggregate from existing permitted aggregate pits. However, if Hydro One's contractor identifies that additional aggregate sources are required, it will follow the permitting process and regulatory requirements for the development, operation, and decommissioning of an aggregate pit. Forestry aggregate pits will not be relied upon at any stage of the Project.

6.2.5.7. Concrete production/batch plants

Concrete may be mixed on site in batch plants, or may be sourced from local suppliers, if available. If concrete batch plants are required, the owner/operator of the plant will operate the facility in compliance with applicable regulatory requirements (e.g., ECA).

6.2.5.8. Access and ancillary components plan finalization

It is likely that refinements to the preliminary access plan and locating ancillary components will be required during detailed design. All final access plans will be subject to environmental due diligence.

The following commitments are made to afford the Project a reasonable level of flexibility to address Project design refinements during detailed design:

- Refinements to locations or implementation methods of Project components will not result in new net effects that go beyond the level of sensitivity or significance described in the final ESR;
- Refinements to the locations or implementation methods of Project components will not require additional mitigation measures beyond those described in the final ESR;
- Existing access roads not identified in the final access plan may be used, but work on such roads will be limited to minor improvements. Hydro One will work with the applicable landowner(s) (e.g., forest management companies, municipalities) on these improvements;
- To reduce the overall area of disturbance, access roads may be shifted within existing disturbed areas (e.g., existing transmission line ROW) or within the Project ROW;
- The access footprint may be moved or modified to accommodate local ground conditions, or if new information is received about the potential effect of an access

location on an environmental or cultural feature. For example, if a culturally sensitive site or feature is identified by an Indigenous community that requires a component to be moved, the access road will be moved to avoid the sensitive feature. Access adjustments outside of the ROW on private land will be discussed with and included under negotiated agreement with private landowners prior to proceeding. If this involves Crown land, localized adjustments of the final access plan (e.g., within 10 m) will not result in a net increase in the area of disturbance and will not be within areas of greater sensitivity;

- Project footprint components will not be moved to cross new types of sensitive environmental features not previously assessed (e.g., new types of designated features) or within the stipulated protection buffers outlined in this report;
- Aggregate sites, laydown yards, storage yards, fly yards, and camp sites may be relocated if more suitable locations are identified that reduce or maintain the same level of Project effects; and
- For all modifications listed above, applicable regulatory agency permitting and approvals, as well as Indigenous community consultation, will be completed as required.

6.2.6. Clean-up and restoration

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

6.3. Maintenance, operation, and retirement phases

The proposed Project is planned to be in service by 2030. The new transmission line and TSs will undergo regular inspection and maintenance in accordance with Hydro One's maintenance standards, operating procedures, and regulatory requirements for the continued safe and reliable operation of the transmission system. Maintenance activities will be carried out in accordance with the following standards for safety, consistency, and compliance with provincial and industry requirements:

- Applicable Hydro One Line Design and Line Standards documents that govern routine inspection, component replacement, grounding integrity, hardware performance, vegetation management, and safety practices;
- Relevant IEEE guidelines for maintenance and inspection of transmission lines, including:
  - IEEE 1441 (Guide for the Inspection of Transmission Line Construction);
  - IEEE 516 (Maintenance Methods on Energized Power Lines); and
  - IEEE 1243 (Improving Lightning Performance).

Hydro One has discussed post-construction vegetation management with Partner First Nations in response to concerns regarding the use of herbicides. Current options under consideration include mechanical-only management and IVM. Mechanical-only management uses physical methods such as hand cutting, brush saws, chainsaws, and mowing equipment to remove unwanted vegetation. IVM uses physical methods to remove unwanted vegetation, combined with selective herbicide application. Hydro One has committed to not using herbicides unless it is jointly determined with the Partner First Nations to be appropriate in specific and defined circumstances. If Partner First Nations maintain their current position that herbicide use should not be permitted throughout the life of the Project, that commitment stands.

Hydro One will continue to involve Partner First Nations in developing the post-construction vegetation management plans, including additional consideration for sensitive natural habitats.

When TFs become obsolete or unserviceable and/or are deemed to be at end-of-life, the equipment is retired from service. TFs retired from service are often left in place (idle) for potential future use. The facilities may eventually be removed, and the site made suitable for other purposes.

When transmission structures are removed, the approach to foundation removal depends on site conditions. In soil/overburden conditions, foundations are typically cut back 0.5 to 1.0 m below ground surface, backfilled, and the area restored to surrounding grade. At bedrock sites, the structure and above-ground components are removed. Anchor rods or bolts are cut flush with, or slightly below, the bedrock surface and capped or grouted as required. The remaining foundation embedded in bedrock is left in place, and disturbed areas are restored.

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

6.4. Project schedule

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

Table 6-1: Project schedule

Activity	Period
Draft ESR 30-day public comment period	Fall 2026
Comment integration and response	Late 2026
Filing of final ESR and Class EA Statement of Completion with the MECP	Early 2027
Submission of Section 92 application to the OEB	2027
OEB Section 92 approval	2027
Construction start	Late 2027
Planned in-service date	Late 2030

7.0 Potential effects and mitigation measures

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

The term “Project footprint” is used within this section to describe both temporary and permanent areas that will be taken up by the Project. This includes the ROW, access roads, construction laydown areas, and other off-ROW lands required for the Project. The location of these off-ROW components will be determined during detailed design.

In some cases, additional field investigations or other studies are recommended in this section to support further IA during detailed design.

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

Based on the Project design and implementation of the proposed mitigation measures, adverse net effects (i.e., effects following the implementation of mitigation) are anticipated to be minimized. The following subsections detail the effects assessment for the Project. Avoidance, mitigation, and compensation commitments for the Project are summarized in **Section 7.10**.

7.1. Forestry resources

This section describes the potential effects related to forestry resource uses, including existing resources and the availability of planned forestry resources. Within this section and

the corresponding mitigation measures in **Table 7-1**, the following terms are used to refer to various land users:

- "Forestry resource land users" is a broad term used to refer to a range of land users such as loggers, trappers, and commercial tourism operators;
- Interest holders are parties with officially registered legal rights to an area of land;
- Landowners are parties that own land, which is referred to as "patent" land in forest management terms (as opposed to Crown land);
- Lessees hold leases to allow use of Crown land for purposes other than timber harvesting (e.g., mines, commercial tourism);
- Tenure holders are parties that manage forests and are responsible for long-term planning; and
- Licence holders are parties that hold a licence to use forestry resources in an area, including:
    - SFL holders (parties granted a long-term area-based licence to manage an FMU); and
    - FRL holders (short-term, volume-based operators).

7.1.1. Changes to the area and access of forestry resources

During construction and maintenance, there is the potential that the Project will affect the availability of the forest resources through vegetation removals within the PSA. Some areas of the PSA will be restored through erosion control, revegetation, and returned to natural drainage patterns, while some areas will be permanently maintained such as the ROW and permanent access roads.

The Project ROW intersects approximately 161.7 ha of land where timber harvesting is planned within the 10-year horizon of the respective FMP, as well as eight mapped forestry roads. It is acknowledged that other roads are also used by forestry companies. Overall, the forestry resources affected by the Project represent a relatively small proportion of the total productive forest area within the FMUs intersected by the Project (approximately 6.8 million ha total, as outlined in **Section 4.2.1**).

Project activities during construction may temporarily reduce or limit access to certain portions of existing areas for identified landowners, lessees, and licence holders. Unless otherwise directed by regulatory agencies, Hydro One does not anticipate requiring closure

of public roads during construction activities. Traffic control may be required from time-to-time, which may cause short-term interruptions/delays to road users. Temporary road disturbances and restrictions will not be continuous, as construction will be completed using a staged approach. Access restrictions are expected to occur only within certain segments of the PSA, most heavily within the Project ROW. The Project will use existing road and trail infrastructure where practical to limit disturbances resulting from construction of new access roads and trails, although constructing new access roads may alleviate additional pressure on the roads.

During operations and maintenance, vegetation management in previously forested areas will occur within the ROW to ensure the delivery of safe and reliable power.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects to forestry resources are expected to be minimized.

7.2. Cultural heritage resources

7.2.1. Archaeological resources

As noted in **Section 4.3.1**, a Stage 1 AA was completed by AECOM (2026a; PIF # P316-0568-2025). The Stage 1 AA determined that the PSA contains land with archaeological potential. The Stage 1 AA is included in **Appendix C-1**.

A Stage 2 AA is currently ongoing within the identified areas of archaeological potential along the Project ROW and access roads as part of detailed design. Stage 2 assessment must be completed prior to any ground disturbing activities within areas of archaeological potential. The assessment is following the MCM Standards and Guidelines. In alignment with these requirements, and as noted in **Section 3.11.1.3**, Hydro One has engaged with the Partner First Nations and interested Indigenous communities to participate in the Stage 2 AA field program.

If the Stage 2 AA identifies the need for further assessment, a Stage 3 and/or 4 AA will occur as required and as outlined in the MCM Standards and Guidelines (2011). Hydro One remains committed to meaningful Indigenous participation throughout the remaining stages of AA process. Copies of all AA reports will be shared with Partner First Nations and interested Indigenous communities for review and comment.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licenced archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licenced archaeologist has completed archaeological field surveys on the site, submitted a report to the Ministry stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, no net effects to archaeological resources are predicted.

The Stage 1 AA report is subject to change in response to Partner First Nation comments. This section and the associated row in **Table 7-1** will be updated accordingly, if required, for the final ESR.

7.2.2. Built heritage resources and cultural heritage landscapes

The CHEC (**Appendix C-2**) identified seven potential CHLs and one potential BHR within the PSA of the preferred route (AECOM, 2026b) and recommended completion of a PIA. Specifically, the following potential CHLs have been identified:

- Three railways identified as potential CHLs;
- Three rivers identified as potential CHLs (Ivanhoe, Groundhog, and Mattagami);
- One provincial park identified as a potential CHL (The Shoals Provincial Park); and
- One camp identified as a potential BHR (Kamp Kinniwabi).

A PIA was subsequently completed for the potential CHLs and BHRs identified within the PSA of the preferred route (AECOM, 2026c). The PIA determined that:

- There are potential direct impacts to the three potential river CHLs (the Ivanhoe, Groundhog, and Mattagami Rivers), as hydro towers and access roads have the potential to be constructed within 100 m of these resources;
- It is anticipated that one potential CHL (The Shoals Provincial Park) will have potential indirect adverse impacts from the removal of vegetation or other natural features;
- It is anticipated that the three potential river CHLs and The Shoals Provincial Park will require a construction access road that would constitute a potential impact;

- No impacts are anticipated to the three railways that were identified as potential CHLs; and
- No impacts are anticipated to the potential BHR (Kamp Kinniwabi).

With the effective implementation of the mitigation measures outlined in **Table 7-1**, no net effects to BHRs and CHLs are predicted.

The CHEC and PIA reports are subject to change in response to Partner First Nation comments. This section and the associated row in **Table 7-1** will be updated accordingly, if required, for the final ESR.

7.3. Land use and communities

The PSA of the preferred route passes through municipal boundaries of the Township of Chapleau and the City of Timmins, as well as the unorganized districts of Algoma, Sudbury, Cochrane, and Timiskaming. Most of the preferred route is located on Crown land. An overview of the applicable provincial and municipal land use policies is provided in **Section 4.4.1**. It is recognized that the PSA crosses multiple provincial and municipal land use designations, including rural, open space, resource development, employment area, and neighbourhood area.

Generally, provincial policies and municipal OPs include support for energy transmission and investment in Ontario. The Growth Plan (2011) supports investment in energy generation and transmission infrastructure in northern Ontario. The local OPs provide for the provision of opportunities to develop energy supply, including electricity TFs, in all land use designations. Crown land use policy permits electrical transmission lines in General Use Areas, which comprise most of the Project ROW. EMAs are designated to protect special features or values and, while electrical transmission lines are not prohibited, they are subject to additional scrutiny. Within provincial parks and conservation reserves, a work permit is required under the *Provincial Parks and Conservation Reserves Act* as noted in **Section 1.6.2**.

7.3.1. Business operations

Project activities are not anticipated to significantly impact existing industrial operations such as aggregate pits and mines located along the PSA of the preferred route and near the Township of Chapleau and the City of Timmins. Mineral resource impacts are assessed in **Section 7.4**.

Business access will be maintained throughout construction where practical. During construction and operation, there is potential for effects on areas used for hunting, fishing, and trapping as well as access to these areas. Construction noise and vibration may cause wildlife to avoid the area. Waste generated by construction crews may attract bears or other wildlife if not managed appropriately. Construction also has the potential to impact existing trails used for tourism, hunting, fishing, and trapping.

During operations, the new ROW and access roads may provide hunters and fishers with beneficial opportunities to reach areas that were previously inaccessible or challenging to reach. However, this increased access may also negatively impact existing hunters, fishers, and trappers by introducing increased activity and decreasing the level of remoteness. Resource-based business operators in the LSA may be impacted by habitat changes such as loss of mature forested habitat used by furbearers and introduction of a new movement and foraging corridor for moose, bears, wolves and other species.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects to business operations are expected to be minimized.

7.3.2. Effects to existing and future land use designations and potential future development

The location of a transmission line corridor will introduce certain restrictions to future development potential within the corridor.

Throughout the province, development (both residential and commercial or industrial) occurs around and adjacent to existing transmission line corridors and stations. Hydro One and agencies (e.g., IO) have existing processes to review proposals for developments that are planned adjacent to or within transmission line ROWs and facilitate compatible uses of these corridors.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects to future land uses in the area are expected to be minimized.

7.3.3. Effects to transportation

The Project is located within a rural landscape with local roads, resource roads, and highways serving as potential access routes in the PSA. Highway 101 passes through the PSA from east to west and serves as the primary access route. Highway 129 extends

northwest to southeast through a portion of the PSA south of Chapleau. The preferred route runs parallel to Highway 101 for approximately 18.8 km and parallel to Highway 129 for approximately 0.5 km.

Construction activities have the potential to disrupt highway traffic and local traffic on municipal and resource roads. Specifically, the stringing of conductors across roads and the construction of new access roads may require temporary road closures, rolling closures, land occupancy, and/or detours. Heavy equipment may also increase traffic and loads, which may result in localized wear and tear on lower order roadways. Effects on road and highway traffic and roadways are expected to be minimal and temporary.

As noted in **Section 4.4.3**, there is one heliport located within the preferred route LSA, as well as a seaplane base which is located approximately 300 m north of the LSA, near the Township of Chapleau. Hydro One and/or its contractor will coordinate with TC to complete the necessary permits, licences, and approvals. Based on the scope of work, a TC Aeronautical Assessment form is anticipated to be required. Following the completion of engineering and the finalization of structure locations and heights, Hydro One will submit the form if it is deemed necessary. Disruption to the heliport and seaplane base are not anticipated.

Three rail lines intersect the preferred route LSA; one of these is operated by Watco, one is operated by CN Rail, and the other is operated by CPKC Rail. Hydro One and/or the construction contractor will coordinate with the applicable authorities to complete any necessary permits, licences, and approvals.

The Project is not anticipated to disrupt transit services in the Township of Chapleau nor the City of Timmins.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects to transportation are expected to be minimized.

7.3.4. Mud and construction debris

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

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects associated with mud and construction debris are expected to be minimized.

7.3.5. Electric and magnetic fields

EMFs are invisible fields that surround electrical equipment, such as power cords, wires and everyday household items such as microwaves, televisions, and vacuums. EMFs are strongest close to their source, and the strength of the field decreases with distance from the source.

Hydro One has a dedicated team that regularly monitors global studies around EMFs and ensures that infrastructure is built and maintained following best practices and industry standards. Hydro One looks to Health Canada, the World Health Organization, and the International Commission on Non-Ionizing Radiation Protection for guidance on EMF and Hydro One's approach. Based on global studies, these organizations indicate that neither members of the public nor wildlife require additional mitigation measures to protect from EMFs produced by extremely low frequencies such as transmission lines. Hydro One monitors global studies as research is updated.

Hydro One takes safety very seriously and designs and operates equipment in accordance with all regulatory requirements to account for safety. A Hydro One developed information sheet that addresses concerns related to EMF is available in **Appendix D**.

With the Project being designed and operated in accordance with the appropriate regulatory requirements, no net effects associated with EMFs are predicted.

7.3.6. Noise and vibration

Construction and maintenance activities have the potential to affect ambient noise and vibration levels, while the operation of the transmission line has the potential to affect noise levels during temporary weather events (i.e., storms). These effects in turn may create temporary nuisance or disturbance effects for residents, land users, and wildlife.

All work is expected to be completed using common construction methods and in general accordance with the MECP's Publication NPC-115 (Construction Equipment; 1978), Publication NPC-118 (Motorized Conveyances; 1978), and Publication NPC-119 (Blasting; 1978). The noise and vibration associated with construction would likely be a result of activities such as general site grading, foundation work, construction traffic, tower assemblies and erection, stringing, and implosive splicing. Each of these activities requires various pieces of heavy equipment such as bulldozers, front-end loaders, small trucks, backhoes, bobcats, dump trucks, compactors, concrete trucks, helicopters, and/or cranes.

The movement of delivery and worker vehicles would also add to the noise levels during the construction period.

During construction, noise and vibration effects are anticipated to be transient. Vibration is expected to occur only during specific activities (e.g., implosive splicing) and be limited to the immediate vicinity of the construction work area. Indirect noise disturbance effects on wildlife during construction can include temporary declines in habitat occupancy, as well as changes to mobility and feeding habitat patterns.

Noise sources and vibration levels from maintenance activities and operation after construction would be variable and transient. Except for periodic maintenance activities (e.g., inspection from ground-based or aerial vehicles and vegetation maintenance), no additional noise or vibration is expected during maintenance of the transmission line. Therefore, no additional mitigation is required during the maintenance and operation of the Project.

Noise emitted by transmission lines during normal operation relates to several factors, such as weather conditions and how heavily loaded the transmission line is. For example, during regular weather, transmission lines are typically almost silent, but during more severe weather like thunderstorms, the noise levels can be raised. Regarding the potential for the operation of the transmission line to affect noise levels, Hydro One is committed to investigating the application of the MECP's final draft Publication NPC-360, Protocol for the Measurement and Prediction of Audible Noise from HV Transmission Lines (2011), during detailed design.

The proposed 500 kV yard at the Wawa TS and new 500 kV connection at the Porcupine TS will require the installation of new 500 kV transformers, which will be an additional noise source at each of the TSs. Noise studies and modelling at the TSs will be conducted during detailed design, as required, and the applicable approvals and/or registrations will be determined and acquired prior to construction if necessary. Based on O. Reg 1/17, the TS expansions are expected to be eligible for registration on the EASR.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects of noise and vibration are expected to be minimized.

7.4. Mineral resources

As discussed in **Section 4.5**, there are several mineral and aggregate resources and associated operations within the LSA. The Project ROW intersects with approximately 140.4 ha of active mining sites, and approximately 1.2 ha of an aggregate extraction area.

During construction, the following activities are anticipated to occur in areas with existing or potential mining and aggregate resource use:

- Site preparation;
- Clearing;
- Infrastructure construction;
- Assembly and erection of Project structures; and
- Transportation of construction workers, equipment, and materials.

This section provides details related to the potential effects, mitigation measures, and net effects related to mineral resource uses that may be impacted by the Project, including existing mines and aggregate pits and/or extraction areas.

During construction and maintenance, the Project may temporarily reduce or limit access to certain portions of existing areas for landowners, lessees, licence holders, and claim holders. Intermittent, short-term road closures may partially displace users both due to the activities occurring and to protect user safety.

The Project will use existing road and trail infrastructure where practical to limit disturbances resulting from the construction of new access roads and trails, although the construction of new access roads may be required in certain portions of the ROW.

Access to existing mining and aggregate operations in the Project PSA and LSA may also be temporarily disrupted by Project-related increases in traffic and temporary road restrictions during the construction stage, should the timing of construction and other resource use activities overlap. Intermittent, short-term road closures for cable stringing could also necessitate detours on roads that are also used for accessing lands, resources, and amenities beyond the PSA. Traffic-related disruptions would be most noticeable in the PSA but may be experienced within the LSA as well. The Project may limit the access of identified landowners, lessees, licence holders, and claim holders who partake in mining and/or aggregate resource use activities in the Project PSA. There is also the potential for

the Project to temporarily affect the availability of mining and/or aggregate resources due to potential delays associated with road closures and temporary access restrictions.

During operations and maintenance, existing mining and aggregate resource claim holders operating within the Project PSA could be temporarily impacted through disruptions to the access of affected areas. During operation, the following activities may also take place within licenced areas traversed by the Project ROW:

- Maintenance of access roads;
- Periodic inspection of the transmission line and associated infrastructure; and
- Necessary repairs and vegetation management along the ROW to maintain transmission line safety and integrity.

Such operational activities may result in restricted access near the areas of maintenance but are expected to be rare.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects to mineral resource operations are expected to be minimized.

7.5. Natural environment resources

7.5.1. Physical environment

7.5.1.1. Physiography and geology

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

7.5.1.2. Spills

During construction and maintenance activities, there is the possibility of spills from the release of oils and fuels from construction or maintenance vehicles and equipment. There are several mitigation measures to reduce the risk of spills and to minimize the effect in the unlikely event that a spill occurs. An Emergency Response Plan and spill response materials will be maintained and readily accessible at all times during construction and maintenance.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects associated with spills are expected to be minimized.

7.5.1.3. Waste generation

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

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects from waste generation are expected to be minimized.

7.5.1.4. Excess materials management

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

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects from excess material management are expected to be minimized.

7.5.2. Atmospheric environment

7.5.2.1. Climate change

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

The Made-in Ontario Environment Plan commits to reducing GHG emissions 30% below 2005 levels by 2030 (MECP, 2022). The Project aligns with these targets as it contributes to maintaining and upgrading electrical infrastructure and increasing resilience and supply capacity for northeast Ontario. This contributes to electrification efforts which could help

achieve Ontario's 2030 targets. As outlined in the annual Hydro One sustainability reports, Hydro One is committed to adapting to and mitigating the impacts of climate change.

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 operates vital infrastructure that must be resilient to the impacts of climate change. Hydro One, as a licenced transmitter, complies with NERC Reliability Standards to ensure the reliability and security of the transmission system. While having inherent resiliency built into current design standards, Hydro One continues to improve the resilience of its operations by focusing on planning, designing, constructing, operating, and maintaining its infrastructure with consideration of future climate projections.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, no net effects to climate change are predicted.

7.5.2.2. Air quality

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

With the effective implementation of the mitigation measures outlined in **Table 7-1**, no net effects to air quality are predicted.

7.5.3. Noise and vibration

There is the potential for increased noise and vibration during the construction and maintenance activities; however, as noted in **Section 7.3.6**, they are anticipated to be transient. The duration of construction and maintenance activities at any one location along the transmission line corridor would be limited and intermittent, thereby reducing the duration of noise and vibration at any given area. Vibration is expected to occur only during specific activities (i.e., implosive splicing) and be limited to the immediate vicinity of the construction work area. Indirect noise disturbance effects on wildlife during construction can include temporary declines in habitat occupancy, as well as changes to mobility and feeding habitat patterns.

During operations, noise impacts are expected to be minimal. The potential for operation of the transmission line to affect noise levels is specifically associated with temporary weather events (i.e., thunderstorms).

The proposed 500 kV yard at the Wawa TS and new 500 kV connection at the Porcupine TS will require the installation of new 500 kV transformers, which will be an additional noise source at each of the TSs. Noise studies and modelling at the TSs will be conducted during detailed design, as required, and the applicable approvals and registrations will be acquired prior to construction if necessary. Based on O. Reg 1/17, the TS expansions are expected to be eligible for registration on the EASR.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects of noise and vibration are expected to be minimized.

7.5.4. Surface water resources

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

7.5.4.1. Surface water quantity

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

- Site preparation, construction of access roads, temporary work pads and temporary stringing pads;
- Construction adjacent to watercourses, waterbodies, and wetland areas; and
- Discharge of construction water from dewatering activities.

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

- A temporary increase in overland flows; and
- Potential organic and sediment loading to nearby watercourses and waterbodies.

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

The Project is predominantly located within a remote environment. It is anticipated the Project will utilize existing access roads wherever practical; the number and location of access roads will be established during the detailed design phase.

There is potential for Project infrastructure (access roads, towers) to be located within MRCA regulated lands with the potential to result in effects to natural hazard lands, wetlands, and watercourses. The location of transmission structures and temporary access and work areas will be determined during detailed design and construction planning. MRCA will be consulted with respect to works planned in regulated areas.

To avoid or minimize the potential adverse effects of maintenance activities on surface water quantity, mitigation measures for construction-related activities (where applicable) will be implemented during maintenance activities. As a result, maintenance activities are not anticipated to have a long-term net effect on surface water quantity.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on surface water quantity in the receiving watercourses and waterbodies are expected to be minimized.

7.5.4.2. Surface water quality

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

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

Site preparation will consist of vegetation removal, topsoil stripping, rough grading (where necessary), and stockpiling of materials. These activities would result in the temporary exposure and disturbance of soil with the potential for wind and water erosion and the transport of sediment to aquatic features. Site preparation would also result in the

temporary accumulation of cleared vegetation with the potential for mobilization of organic debris and its transport to aquatic features during runoff events.

Earthworks would consist of excavation, fill, and stockpiling activities. This would similarly result in disturbance and exposure of soil to wind and water erosion and the transport of sediment to aquatic features. Following construction, areas of temporary disturbance will be stabilized and restored to a safe, stable condition. General Project footprint restoration will focus on erosion control, revegetation, and restoring natural drainage patterns rather than achieving pre-construction grades.

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

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

The surface water quantity mitigation measures outlined in **Table 7-1** will also mitigate the potential adverse effects of site preparation and other earthwork activities on surface water quality in aquatic features.

The removal and discharge of construction water may be required for dewatering in holes or trenches for transmission structure and substation foundations. The measures outlined in **Table 7-1** to avoid or minimize discharge of construction water will also serve to avoid or minimize the potential adverse effects on surface water quality. As a result, dewatering activities are not anticipated to have long-term net effects on surface water quality in the receiving aquatic features.

With the effective implementation of the mitigation measures outlined in **Table 7-1**, net effects on surface water quality in aquatic features are expected to be minimized.

7.5.5. Groundwater resources

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

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

Containment and disposal measures for contaminated soil and groundwater would be implemented according to the pertinent regulations, as required.

Changes in groundwater due to Project activities during construction could affect the amount of groundwater discharged to nearby watercourses, waterbodies, and natural environmental features (e.g., vegetation, fish habitat, wetlands, etc.). Effects on groundwater due to dewatering would be ephemeral and have a zone of influence measured in the range of several tens of metres.

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

7.5.5.1. Groundwater quality

As noted in **Section 4.6.1,** the regional quaternary geology of the PSA is dominated by Precambrian bedrock, till, glaciofluvial outwash deposits, glaciofluvial ice-contact deposits, glaciolacustrine deposits, glaciofluvial outwash deposits, and fluvial deposits. The Project structure and footing types will be determined during detailed design and appropriate for the location, substrate, and subsurface conditions.

It is unlikely that the installation of structure footings will impact water wells, even if wells are located relatively close to the structure foundations. Transmission structure footings generally do not adversely affect the quality of water resources, as effects of construction are often shallow relative to deeper aquifers, temporary in duration, and often less intrusive than other construction methodologies (e.g., excavations for building foundations or driven pile footings).

If changes in groundwater quality were to occur, it is anticipated that groundwater quality would return to baseline conditions following the implementation of mitigation measures, such as containment and removal of contaminated soils.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on groundwater quality are expected to be minimized.

7.5.5.2. Groundwater quantity

Groundwater base flow (quantity) is seasonally important to nearby waterbodies and natural environment features, including vegetation, fish, and aquatic habitat. The effects on groundwater quantity associated with the construction of transmission structures are anticipated to be local to the hole or excavation. Foundation excavations will be backfilled in a timely manner. As such, it is predicted that there will be limited to no temporal effects on groundwater levels and quantity during construction.

Construction will occur predominantly within forested areas. It is anticipated that water discharge would be to nearby vegetated areas. As a result, there may be some runoff from this discharge and some infiltration. Contaminated water will not be discharged to the environment.

Transmission line structure footings generally do not adversely affect the quantity of water resources, as effects of construction are often shallow relative to deep aquifers, temporary in duration, and often less intrusive than other construction methodologies (e.g., excavations for building foundations or driven pile footings).

The 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. Though currently not anticipated, if detailed design suggests that construction dewatering of transmission structure foundation holes/excavations is required at a rate greater than 50,000 litres per day, an EASR will be obtained from the MECP.

It is anticipated that municipal wells and local private water wells within the area will not be significantly affected as a result of dewatering activities associated with transmission line structure foundation holes or excavations. The zone of influence of such dewatering activities is localized and the majority of water wells exploit aquifer(s) that are at a much greater depth than the proposed excavations.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on groundwater quantity are expected to be minimized.

7.5.6. Source water protection

During construction and maintenance activities, there is the possibility of contamination of surface water through spills or leaks from the release of oils and fuels from vehicles and equipment.

As noted in **Section 4.6.5**, the PSA does not intersect areas where development poses a significant threat to source water. However, the PSA crosses the following areas that are identified as having a degree of vulnerability:

- SGRAs (vulnerability score of 2, 4, and 6);
- HVAs (vulnerability score of 6); and
- IPZ 3 (MECP, 2026).

Based on the location of the Project and the scope of work for construction, operation, and maintenance, no concerns regarding SWP have been identified. Potential effects can be mitigated through best management practices for fuelling and the Emergency Response Plan.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on source water are expected to be minimized.

7.5.7. Designated or special natural areas

7.5.7.1. Areas of Natural and Scientific Interest

As noted under **Section 4.6.6.1**, no ANSIs were identified within the PSA; therefore, no effects on ANSIs are anticipated as a result of the Project.

7.5.7.2. Important Bird Areas

As noted under **Section 4.6.6.2**, no IBAs were identified within the PSA; therefore, no effects on IBAs are anticipated as a result of the Project.

7.5.7.3. Effects to lake trout lakes, historical fish stocking areas, and fish activity areas

As noted in **Section 4.6.6.3**, the LSA overlaps with two waterbodies designated as lake trout management areas (also referred to as lake trout lakes): Kinniwabi Lake and Anjigami Lake. Only Kinniwabi Lake intersects the ROW.

In general, the mitigation measures for surface water resources and SWP will also address potential impacts to lake trout lakes, historical fish stocking areas, and fish activity areas during construction. Additional mitigation measures for lake trout, historic fish stocking areas, and fish activity areas are outlined in **Table 7-1**.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on lake trout, historic fish stocking areas, and fish activity areas are expected to be minimized.

7.5.7.4. Enhanced Management Areas

The PSA of the preferred route intersects with one EMA: the Tikamaganda Recreation Access Area. The Tikamaganda Recreation Access Area is classified as a Recreation Area under the EMA designation. The intent of this classification is to provide high quality recreation, resource-based tourism, and natural values within a remote or semi-remote forested setting, while also permitting sustainable business and industrial activities (MNR, 2025). The provincial policies for Crown land use designations note that industrial activities, including new corridors for transmission lines, will be planned in a manner that supports the maintenance or enhancement of the area's remote recreational qualities (MNR, 2025).

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on the Tikamaganda Recreation Access Area are expected to be minimized.

7.5.7.5. Conservation reserves

As discussed in **Section 4.6.6.7**, there are three conservation reserves intersected by the PSA of the preferred route: Windermere Goldie Lake Complex, Vimy Lake Uplands Conservation Reserve, and the Tetachikapika River Plain Conservation Reserve. While the overall operation and function of the conservation reserves are not anticipated to change due to the Project, there could be temporary effects to the natural environment, recreational use, and cultural values.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on conservation reserves are expected to be minimized.

7.5.7.6. Provincial parks

As discussed in **Section 4.6.6.8**, there are four provincial parks intersected by the PSA of the preferred route: Shoals Provincial Park, Ivanhoe Lake Provincial Park, Dana-Jowsey Lakes Provincial Park, and Groundhog River Waterway Provincial Park. While the overall

operation and function of the parks is not expected to change with the implementation of the Project, there could be temporary effects to the natural environment, recreational use, and cultural values.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on provincial parks are expected to be minimized.

7.5.8. Natural heritage resources

As described in **Section 4.6.7**, the PSA was determined to contain woodlands, wetlands, candidate and confirmed wildlife and SAR habitat, and direct year-round fish habitat. Minimal non-native and invasive species were identified in the area.

Hydro One plans to undertake a Biodiversity Initiative to fund opportunities to create or enhance habitat benefits to the region. This initiative will be conducted after completion of the Class EA and OEB Leave-to-Construct processes, with opportunities for participation for interested parties.

7.5.8.1. Vegetation communities

Most of the PSA consists of upland and treed communities. The PSA includes naturally occurring communities such as upland (open barren, thicket, meadow, and deciduous, coniferous, and mixed woodlands), wetland (marshes, bogs, and fens), and open water areas. The PSA also includes anthropogenic ecosite types such as disturbed areas, industrial areas, buildings, and paved areas.

Potential effects to vegetation communities during construction include ecosystem disruption due to the permanent removal of incompatible vegetation, changes to ecosystem composition, dust and air emissions and subsequent deposition, and the potential for invasive species introduction. The potential for the Project to introduce and disseminate invasive species is addressed in **Section 7.5.8.7**.

Removal of incompatible vegetation will be required within the new transmission line ROW to ensure the safe and reliable operation of the transmission line. Vegetation is considered incompatible when its height at maturity has potential to interfere with the safe and reliable operation of the transmission line. In some areas, additional removals will be required to accommodate access roads and temporary working space.

Approximately 76% or 2,475 ha of the ROW currently consists of upland communities, the majority of which are made up of incompatible vegetation (2,083 ha) and will be required to be permanently removed to accommodate the Project corridor. The Project ROW includes 488 ha of upland communities on private lands and 1,987 ha of upland communities on Crown land, representing 19% and 81% of the ROW lands, respectively. The Project ROW will traverse approximately 32.2 ha of regulated areas under the jurisdiction of the MRCA.

Despite an increase in some ecosystem fragmentation, generally most upland communities are expected to remain abundant and well connected across the LSA to continue supporting healthy and functioning ecosystems.

Forested areas in closer proximity to the Project ROW may be affected by the removal of trees, physical site disturbance, and other edge effects (e.g., sensory disturbances, entry and spread of generalist or invasive species, changes in moisture and sunlight) that can negatively influence ecosystem conditions. Native habitat edges and physical site disturbance may increase the likelihood that non-native and/or invasive flora species will be introduced to the surrounding botanical communities. Three plants listed as noxious weeds in Ontario's *Weed Control Act,* 1990 were observed during botanical surveys, including Bull Thistle, Canada Thistle, and Spotted Knapweed.

Vegetation removals will result in changes to vegetation composition within an existing upland community (e.g., transition from taller tree/large shrub communities to shorter-growing shrub or meadow communities comprised of forb and graminoid species). Such transitions have the potential to produce edge effects along naturally occurring vegetation communities, as well as the potential for habitat fragmentation. Habitat fragmentation can result in a change of contiguous wildlife habitat and occupancy and/or habitat quality for flora and fauna.

Upland communities are important to Indigenous communities as they support elements required for continued practice of Indigenous culture and rights (e.g., hunting, trapping, plant harvesting, ceremony). Upland communities are also important to other forestry resource land users (e.g., trappers).

With the implementation of the mitigation measures outlined in **Table 7-1**, and taking into consideration the larger context of the Project location, net effects of the Project on vegetation communities are expected to be minimized.

7.5.8.2. Wetlands

The Project ROW overlaps with approximately 470 ha of MNR mapped wetlands, although the ROW does not traverse PSWs. Aside from where the preferred route must cross wetlands, avoidance of wetlands and establishing construction setbacks to wetland areas will be considered during Project planning to the extent practical to minimize Project impacts.

Wetlands often play an important role supporting elements required for the continued practice of Indigenous culture and rights (e.g., hunting, trapping, plant harvesting, ceremony). Although vegetation removals will not represent a loss of vegetation on the landscape, it will change the vegetation composition within existing wetland communities. Such transitions have the potential to produce edge effects along naturally occurring vegetation communities, as well as the potential for habitat fragmentation. Habitat fragmentation can result in a change of contiguous wildlife habitat and occupancy and/or habitat quality for flora and fauna.

Generally, the mitigation measures for surface water, source water, and vegetation communities would also be employed with respect to wetlands during construction. Additional mitigation measures for wetlands are detailed in **Table 7-1**. With the implementation of these mitigation measures, net effects of the Project on wetlands are expected to be minimized.

7.5.8.3. Fish and aquatic habitat

The Project crosses waterbodies and watercourses identified as direct fish habitat (see **Section 4.6.7.4**). In general, waterbodies and watercourses often support elements required for continued practice of Indigenous culture and rights (e.g., fishing, plant harvesting, ceremony). Although transmission towers will be located to avoid fish and aquatic habitat, there is potential for fish and aquatic habitat to be affected through vegetation removal in riparian areas and watercourse crossings during construction.

The removal of trees within riparian areas has the potential to affect fish habitat as it may reduce the amount of shade provided to fish and aquatic habitat, thereby influencing potential changes in water temperature. With respect to temporary watercourse crossings, potential effects on fish and aquatic habitat include alterations to riparian areas, increased turbidity, and the release of deleterious substances.

Further aquatic habitat assessments will be conducted where in-water work is identified during detailed design, which may result in minor adjustments to the restricted activity periods depending on species presence.

In general, potential effects on fish and aquatic habitat can be avoided and/or mitigated through the application of mitigation measures for spills, surface water resources, SWP, and wetlands. Additional mitigation measures specific to fish and aquatic habitat are outlined in **Table 7-1**. With the implementation of these mitigation measures, net effects of the Project on fish and aquatic habitat are expected to be minimized.

7.5.8.4. Woodlands

As noted in **Section 4.6.7.6**, no significant woodlands have been identified within the LSA through a review of the applicable municipal OPs. Effects to vegetation communities are addressed in **Section 7.5.8.1**.

7.5.8.5. Species at risk

Species designated as either Endangered or Threatened under the SCA and SARA (where applicable) are provided species and habitat protection. As noted in **Section 4.6.7.8**, the environmental inventory, IA, and mitigation for the Project are based on a broader approach to identifying SAR habitat, consistent with the former ESA.

The Project LSA was assessed to provide confirmed or potential habitat for the following SAR:

- Bank swallow;
- Canada warbler;
- Eastern whip-poor-will;
- Migratory bats: eastern red bat, hoary bat, and silver-haired bat; and
- Resident bats: little brown myotis and tri-colored bat.

An overview of the potential SAR habitat and confirmed SAR habitat for the Project is provided in the sections below.

SAR birds (confirmed habitat)

As habitat for SAR birds (bank swallows, Canada warbler, eastern whip-poor-will) has been confirmed to be present in the PSA, ECCC will be consulted to determine if the identified mitigation measures are sufficient or if permitting is required under the SARA.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on SAR birds are expected to be minimized.

SAR bat habitat

Habitat with the potential to support SAR bats (eastern red bat, hoary bat, silver-haired bat, little brown myotis, and tri-colored bat) will be assessed for the presence of habitat trees (snags, cavities) prior to construction to assess the quality of habitat and determine whether habitat can be retained. As it is anticipated that SAR bat habitat will be present in association with the ROW, the MECP will be consulted to determine the approach for confirmation of habitat and to discuss the mitigation measures identified in **Table 7-1**. The Project is anticipated to be registered under the SCA.

The bat active season occurs from April 1 to September 30, with the peak roosting and maternity period occurring approximately between mid-May and the end of July. The current non-active and active bat periods referenced may be refined based upon species-specific surveys that may be undertaken in advance of construction.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on SAR bat habitat are expected to be minimized.

7.5.8.6. Wildlife and significant wildlife habitat

The following confirmed and candidate SWH types were identified within the LSA, as outlined in **Section 4.6.7.7**:

Seasonal concentration areas of animals

- Confirmed Moose Late Winter Areas;
- Candidate Aquatic Waterfowl Stopover and Staging Areas;
- Candidate Bat Hibernacula;
- Candidate Bat Maternal Roosting Habitat;
- Candidate Turtle Wintering Area;
- Candidate Reptile Hibernaculum;
- Candidate Colonially-nesting Bird Breeding Habitat – Ground;
- Candidate Colonially-nesting Bird Breeding Habitat – Trees/Shrubs; and
- Unlikely Colonially-nesting Bird Breeding Habitat – Cliff.

Specialized habitat for wildlife

- Candidate Waterfowl Nesting Areas;
- Candidate Turtle Nesting Areas;
- Candidate Amphibian Breeding Habitat – Wetland;
- Candidate Amphibian Breeding Habitat – Woodland;
- Confirmed Moose Aquatic Feeding Areas;
- Candidate Sharp-tailed Grouse Lek;
- Confirmed Bald Eagle and Osprey Nesting Habitat; and
- Candidate Mast Producing Areas.

Habitat for species of conservation concern

- Candidate Marsh Breeding Bird Habitat;
- Candidate Early Successional Breeding Bird Habitat;
- Confirmed Special Concern and Rare Wildlife – black tern;
- Confirmed Special Concern and Rare Wildlife – common nighthawk;
- Confirmed Special Concern and Rare Wildlife – eastern wood-pewee;
- Confirmed Special Concern and Rare Wildlife – horned grebe;
- Confirmed Special Concern and Rare Wildlife – olive-sided flycatcher;
- Unlikely Special Concern and Rare Wildlife – peregrine falcon;
- Candidate Special Concern and Rare Wildlife – rusty blackbird;
- Confirmed Special Concern and Rare Wildlife – lake sturgeon;
- Candidate Special Concern and Rare Wildlife – monarch;
- Candidate Special Concern and Rare Wildlife – yellow-banded bumble bee; and
- Candidate Special Concern and Rare Wildlife – midland painted turtle and snapping turtle.

Rare vegetation communities

- Confirmed Cliff and Talus Slopes;
- Unlikely Hardwood Swamps;
- Unlikely Sand Dunes;
- Confirmed Rare Tree Type – red and sugar maple;
- Unlikely Rare Tree Type – elm;
- Unlikely Rare Tree Type – oak;
- Confirmed Rare Tree Type – black ash;

- Confirmed Rare Tree Type – red and white pine; and
- Candidate Rare Tree Type – yellow birch.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on wildlife and SWH are expected to be minimized.

7.5.8.7. Invasive species

There is potential for the Project to inadvertently facilitate the spread of invasive species that may occur within or adjacent to work areas during the construction phase. For example, seeds or other propagules can be transported between work areas on construction equipment.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on the spread of invasive species are expected to be minimized.

7.6. Indigenous lands and interests

As indicated in **Section 4.4.4**, while the ROW does not cross Indigenous reserve lands, the PSA of the preferred route intersects the Chapleau Cree Fox Lake reserve and the entire ROW crosses the traditional territory of several First Nations.

Hydro One is committed to developing and maintaining relationships of mutual respect with Indigenous communities and recognizes that Indigenous communities and their lands are unique in Canada, with distinct legal, historical, and cultural significance. Hydro One is committed to continuing to engage with Indigenous communities to provide regular Project updates and actively identify and avoid geographically defined areas that support current or past traditional use for harvesting of wildlife, fish, or plants, or use as sites of spiritual or cultural significance.

Input was provided by Partner First Nations throughout the consultation process, including comments regarding the importance of features such as:

- Fish spawning habitats;
- Lakes and rivers of cultural/historical significance;
- Hunting, trapping, and harvesting areas; and
- Culturally significant species.

Community Values mapping was shared by Partner First Nations as outlined in **Section 4.4.4.3**. Information shared through community Values mapping has been

requested to remain confidential and as such, further information regarding community Values will not be shared. Mitigation measures for these community Values will be discussed and agreed upon between the Partner First Nations and Hydro One.

Indigenous communities have and continue to be invited to participate in archaeological and ecological surveys. As of June 5, 2026, five Partner First Nations have participated in ecological surveys.

Additionally, Partner First Nations were provided opportunities to review the findings of archaeological field surveys and assessment reports. Partner First Nations also reviewed the findings of the draft ESR prior to public release so their feedback on the report could be incorporated. Discussions are ongoing regarding comments from Indigenous communities, which will be addressed in the final ESR.

Indigenous communities will be consulted and engaged with throughout the lifecycle of the Project to mitigate adverse net effects to the communities' interests. Additional mitigation measures will be explored, where feasible, should new community Values be identified early in the detailed design stage.

Through engagement, consultation, and implementation of the mitigation measures outlined in **Table 7-1**, net effects to Indigenous lands and interests are expected to be minimized.

7.7. Recreational resources

There is potential that some recreational resources (e.g., snowmobile trails, All-Terrain Vehicles (ATV) trails, hiking, hunting, skiing, and fishing) may be affected during the construction of the Project due to the presence of construction laydown areas within the corridor, as well as construction equipment and presence of construction crew members and traffic. Impacts may extend into the operations phase where the ROW or permanent access roads intersect recreational resources.

The Project also has potential to impact remote tourism lakes during construction and operations. The presence of personnel and machinery during construction and maintenance activities may disrupt the tranquility of the area. The visible presence of a transmission line can also diminish the sense of seclusion and aesthetic value that remote tourism business owners rely on. In addition, new access roads can facilitate increased human presence in remote areas.

Potential effects of access roads on remote tourism lakes can be avoided/mitigated through the implementation of the planned mitigation measures for business operations. Additional mitigation measures specific to recreational resources are outlined in **Table 7-1**. With the implementation of these mitigation measures, net effects of the Project on recreational resources are expected to be minimized.

7.8. Visual and aesthetic resources

Construction of the new transmission structures will result in a visual change to the landscape. The location of transmission structures is one of the largest factors influencing the visual effects to specific receptors.

The Project is located within a predominantly forested area, providing limited expansive views. Existing vertical elements found within the LSA are mostly limited to trees, steep slopes, and existing transmission lines. The majority of sensitive receptors are dwellings, campgrounds, cottages, and tourism lakes with wide views into the horizon. Many of the properties are treed and have natural features that offer localized privacy from visual elements.

With the implementation of the mitigation measures outlined in **Table 7-1**, net effects of the Project on the visual and aesthetic resources are expected to be minimized.

7.9. Technical considerations

7.9.1. Infrastructure crossings

Construction of the Project will require crossings of existing linear infrastructure including highways, roadways, an existing transmission line, rail lines, watercourses, and waterbodies. In addition, portions of the Project will parallel existing highways, roadways, transmission lines, and a railway. Through engagement with provincial agencies, rail operators, and local municipalities, permanent or long-term impacts to existing linear infrastructure are not anticipated.

Rider poles, boom-tipped riders, or similar protection will be utilized during conductor stringing. Disruption to traffic on roads and highways is anticipated to be temporary and short-term in duration. Temporary closures to Highways 101 and/or 129 may be required to facilitate stringing activities.

No net effects of the Project on infrastructure crossings are anticipated, as all required permits and approvals will be acquired, and conditions of approvals will be followed. Effects to transportation are assessed in **Section 7.3.3**.

7.10. Summary of potential environmental effects, mitigation measures, and net effects

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

Table 7-1: Summary of potential effects, mitigation measures, and net effects

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
Agricultural resources	As noted in **Section 4.1**, no agricultural activities have been identified within the preferred route LSA; therefore, no effects on agricultural resources are anticipated as a result of the Project.	Not applicable.	No effects are predicted.
Forestry resources: Changes to the area and access of forestry resources	**Construction and maintenance:** The Project may intersect with areas and access for forestry resources. Approximately 161.6 ha of active forestry sites are anticipated to be impacted by the Project.	The following mitigation is planned to address these potential effects: • Notify affected landowners, lessees, and SFL holders before the beginning of construction to prevent or reduce the effects to their operations or activities; • Coordinate construction with tenure holders through ongoing engagement where possible; • Where applicable, notify affected parties with respect to crossing agreements and third-party agreements (the list of crossing agreements and third-party agreements will be determined prior to construction); • Resolve inconsistencies between conditions of different licences, permits, approvals, certificates, plans, and by-laws prior to construction, through engagement with relevant municipal, provincial and federal bodies. Continue to engage interest holders, licence holders, tenure holders, and other forestry resource land users, during the construction and operations phases and where appropriate, incorporate recommendations or concerns; • Use existing road and trail infrastructure where practical to limit disturbances from construction of new access roads and trails; and manage any impacts on existing road and trail infrastructure where applicable (e.g., implementation of ESC measures). • Coordinate construction activities with forestry resource land users and Partner First Nations through ongoing engagement. Hydro One and/or their contractor will continue to engage licence holders and other tenure holders, where appropriate (i.e., road use agreements and guidelines); • Review planned harvest allocations from approved FMPs as they relate to construction activities including vegetation removals to establish the ROW and temporary land uses such as construction camps and laydown yards; • Hydro One will work with SFL holders to manage merchantable timber cleared by the Project; and • Coordinate operations and maintenance activities with forestry resource land users through ongoing engagement and continue to engage licence holders, and other tenure holders, where appropriate.	With the effective implementation of mitigation measures, the net effects to forestry resources are expected to be minimized.
Cultural heritage resources: Archaeological resources [Section will be modified as the	**Construction:** Disturbance or destruction of archaeological resources.	The following mitigation is planned to address these potential effects: • A Stage 2 AA is required prior to any ground disturbing activities within areas of archaeological potential in accordance with MCM requirements. In the event the Stage 2 AA identifies the need for further assessment, Stage 3/Stage 4 AAs will	Additional archaeological investigations will be completed prior to ground disturbing activities and

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
Stage 1 AA is reviewed and updated]		be completed as required in accordance with the MCM *Standards and Guidelines for Archaeologists*, 2011; • Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licenced consultant archaeologist to carry out an AA, in compliance with Section 48(1) of the *Ontario Heritage Act*; • Archaeological sites recommended for further archaeological field surveys or protection remain subject to section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence; • The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ontario Ministry of Government and Consumer Services; and • Indigenous communities involved in the Project and/or location will be immediately contacted in the event such remains are Indigenous in origin.	avoidance or mitigation measures applied, as required. Following effective implementation of mitigation measures, including applicable AAs, net effects on archaeological resources are not predicted.
Cultural heritage resources: BHRs and CHLs [Section will be modified as the CHEC and PIA are reviewed and updated]	**Construction:** Based on the findings of the PIA, there is the potential for Project-related works to adversely affect four potential CHLs within the PSA.	The following mitigation is planned to address these potential effects: • The Project should be planned in a manner that avoids direct impacts to the cultural and natural heritage features located within the potential CHLs associated with the Ivanhoe River, Groundhog River, and Mattagami River, including maintaining a minimum setback of 100 m from the riverbanks. Where avoidance is not feasible and hydro towers and access roads cannot be located more than 100 m from the riverbanks, a CHER shall be prepared in accordance with the Hydro One Cultural Heritage Identification and Evaluation Process (2019). • If the resource is found to have Cultural Heritage Value or Interest (CHVI) and direct impacts are anticipated, then a resource-specific Heritage Impact Assessment (HIA) shall be prepared prior to construction. It is recommended that the CHERs and subsequent HIAs, if required, be completed during detailed design and prior to any ground disturbing activities; • Implementation of a Landscape Plan for the area of intersection with The Shoals Provincial Park potential CHL should be coordinated with Indigenous communities, ecological specialists, and relevant regulatory agencies, as appropriate, to support both ecological integrity and CHL objectives; • Post-construction restoration including the removal of the access road to mitigate impacts to potential and known resources within The Shoals Provincial Park and the Ivanhoe, Groundhog, and Mattagami Rivers. All post-construction restoration shall comply with the natural heritage reports for the Project to promote the successful restoration of the natural landscape;	CHERs and/or HIAs will be completed prior to construction if direct impacts to potential CHLs cannot be avoided. Mitigation measures will be applied as required. With the effective implementation of mitigation measures, net effects on cultural heritage resources are not predicted.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• The memorial cross features in The Shoals Provincial Park should be on construction mapping to ensure continued avoidance; • Hydro One shall continue ongoing engagement with Indigenous communities and support their active participation throughout the construction, operation, and long-term maintenance phases of the transmission line. This engagement should aim to mitigate potential impacts to traditional land use areas. Specific attention should be given to, but not limited to protecting locations where traditional foods, medicines, and harvesting activities have been identified through engagement; • If any changes to the Project ROW (including realignment beyond the existing limits) are introduced, then the proposed work shall be reviewed by a qualified Cultural Heritage Specialist to confirm the anticipated impacts and confirm any new preliminary impacts to known or potential cultural heritage resources identified in the CHEC or the PIA; • Where feasible, staging areas and/or laydown areas should be located within previously disturbed or developed areas to minimize the potential for heritage impacts. If this is not feasible, staging areas and/or laydown areas should be restored following project completion where practical; and • Potential CHLs will be identified in the Project EMS for the awareness of construction crews.	
Land use and communities: Business operations	**Construction:** Potential for activities to disrupt commercial, industrial, or land/resource-based operations.	The following mitigation is planned to address potential effects on business operations: • Business access will be maintained throughout construction where practical; • In instances where access cannot be maintained, arrangements will be made for alternative access prior to construction activities starting and appropriate road signage will be provided; • Where seasonal businesses are identified, efforts will be made to avoid disruption during peak/busy seasons, to the extent practical; • Business owners, registered trappers, and landowners within the Project footprint will be notified of Project activities before the start of construction; • Business owners, registered trappers, and landowners will be engaged with, and where appropriate, recommendations or concerns will be addressed; • A Communications Plan will establish the process for both formal and informal communications with Indigenous communities, business owners, resource licence holders, and landowners. A minimum 48-hour notification in advance of major activities, such as construction commencement and/or implosive splicing, will be provided to Indigenous communities and directly affected landowners (i.e., owners of land that is impacted directly by the respective Project works) or as otherwise required by permits/approvals. Details of construction activities/schedule will be made available via the Hydro One Project website; • Project construction activities will be confined to surveyed and marked areas, and a construction Traffic/Access Management Plan will be developed and implemented;	With the effective implementation of mitigation measures, net effects on business operations are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Construction routes will be designed to avoid key access roads/entrances, where possible, and new travel lanes for maintenance can be gated, fenced, ditched, or bermed to limit travel to construction traffic and to prevent unplanned/undesired recreational access during the operation and maintenance stage. Gates or fencing outside of the ROW will be reviewed by MNR as tenure will be required for structures on Crown land, and placement of gates and/or access restrictions will be in accordance with MNR land use policies; • Construction crews will be required to use wildlife-proof containers for all food waste to avoid attracting bears or other wildlife to the construction zone; • Hydro One will work with trappers to understand potential impacts, with the aim of reducing impacts, and will provide fair compensation to eligible trappers whose licensed areas are impacted by the construction of the Project; • If temporary road closures are required during material transportation or other construction activities, Hydro One will coordinate with the appropriate road authority to provide proper notice and implement the required signage and traffic controls, such as through a Traffic Management Plan that is completed in accordance with the Ontario Traffic Manual Book 7 (where applicable); • Several other management plans will also be developed and implemented for the Project to help mitigate socioeconomic and environmental impacts. For example, an Access Plan will identify new and existing roads, entrance approaches, watercourse crossings, and temporary workspaces to help reduce vegetation clearings required for the Project; • Hydro One will continue to consult with local fishing, hunting, and trapping associations and the MNR to confirm how the Project may affect these land/resource users; • Hydro One will engage with guided outfitters as well as resource licence holders (e.g., bait fishers) to understand and address their concerns. This could include providing compensation as applicable to resource licence holders (e.g., due to damage to trapper assets, general disturbance, adverse effects, and impacts to licenced operations); • Hydro One and/or their contractor will maintain ongoing communication with local resource licence holders during construction; • Where feasible, Hydro One will provide resource licence holders the opportunity to relocate assets in advance of construction; • During operations, existing roads and trails will be used where possible with affected trails repaired and rehabilitated; and • Signage will be maintained during operations in the event that access and navigation are impeded by operations and maintenance activities.	
Land use and communities: Existing and future land use designations and potential	**Operation:** The Project will result in some restrictions to future uses within lands occupied by the transmission line ROW.	The following mitigation is planned to address these potential effects: • Typically, there are no restrictions placed on development or new construction outside of the transmission line ROW itself; however, an exception to this is for	With the effective implementation of mitigation measures, net effects to existing and future land use

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
future development		the construction of other infrastructure in proximity to Hydro One ROWs, where Hydro One has required setbacks for safety and reliability reasons. • Where and when future development projects or initiatives are proposed to occur along or within the ROW for the new transmission line, Hydro One will apply its existing processes to review and facilitate these future developments, including potential compatible uses within the transmission line ROW; and • Hydro One will work with the municipalities and applicable landowners to consider potential means of accommodating potential future development during design of the transmission line.	designations and future development are expected to be minimized.
Land use and communities: Transportation	**Construction:** Potential for increased traffic, including heavy equipment, on provincial and regional roads. In addition, stringing of conductors across roadways, including provincial Highway 101 and 129, may require temporary road closures and detours.	The following mitigation is planned to address these potential effects: • Complete a pre- and post-construction road survey to document impacts on local roads caused by heavy equipment and increased construction traffic during construction activities. Survey results will be shared with municipal staff, local roads boards, and the MTO in advance of construction work commencing, as necessary. Damage caused as a direct result of construction activities associated with the Project will be repaired upon completion of construction activities; • Obtain required permits from the MTO and approval for any necessary rolling lane closures prior to construction within and adjacent to Highway 101 and 129; • Obtain required permits from the regional municipalities for any necessary work within municipal road ROWs or when moving oversized loads (e.g., temporary construction related encroachment, entrance permit, over dimensional vehicle permit); • Adhere to seasonal load restrictions; • Where required, a Traffic Control Plan will be developed and shared with local municipalities and MTO, as necessary; • Construction haul routes and schedules will be shared with local municipalities, service boards and MTO in advance of construction, as necessary; • Construction traffic will access the construction areas from the existing road network at specified construction access/egress locations; • Common parking areas will be established for construction crews; • To the extent practical, conductor stringing will utilize rider poles, boom-tipped riders or other protective measures to avoid road closures and other disruptions; • If temporary road or highway closures (e.g., rolling closures) are required during stringing or other construction activities, the contractor will coordinate with the appropriate road authority to ensure that proper notice is provided and that required signage and traffic controls are utilized. The duration of any temporary closures will be minimized to the extent practical; • Where construction work is planned to directly affect local traffic (e.g., temporary road or lane closures), local advertisements (e.g., radio, newspaper) will be	With the effective implementation of mitigation measures, net effects on roads, traffic, and transportation are expected to be expected minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		issued and road signage will be erected to provide notification/pre-construction information to area residents on timelines and potential detours if required; and • Traffic control officers or flag persons will be assigned to assist with construction entry/exit, as necessary.	
Land use and communities: Mud and construction debris	**Construction and maintenance:** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone.	The following mitigation is planned to address these potential effects: • Roads will be cleaned/scraped to remove mud on an as-needed basis; • Mud mats will be installed (on an as-need basis) as a mechanism to reduce the transport of mud; • Vehicles and equipment will be regularly inspected and cleaned as necessary; construction sites will be kept generally tidy to the extent practical and waste bins will be available wherever solid wastes are generated; • Waste materials will be collected and transported to a licenced or approved waste management facility on a regular basis; • General clean site policies will be implemented requiring pick-up and disposal of refuse and construction waste on a regular basis; and • Site cleanup and restoration (e.g., restoration planting and seeding) will further minimize this potential effect as construction progresses and is completed.	With the effective implementation of mitigation measures, net effects from mud and construction debris generated by the Project are expected to be minimized.
Land use and communities: EMF	**Operation:** Potential exposure to increased EMF once the transmission line is energized.	The following mitigation is planned to address these potential effects: • EMF levels associated with the Project are anticipated to remain significantly lower than the general public exposure limits; and • The Project will be designed and operated in accordance with appropriate regulatory requirements.	No net effects are predicted. Health Canada does not consider that any precautionary measures are needed regarding daily exposures to EMFs at extremely low frequencies. There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors.
Land use and communities: Noise and vibration	**Construction and maintenance:** Potential disturbance as a result of noise. **Operation:** Station upgrades at the Wawa TS and the Porcupine TS include a new 500 kV autotransformer.	The following mitigation is planned to address these potential effects: • Construction will be completed in accordance with local noise control by-laws (the City of Timmins By-Law No. 2006-6339, and the Township of Chapleau By-Law No. 2000-24), or applicable exemptions; • Construction activities will also typically occur during one 10-hour shift per day, generally within the daytime period (i.e., 07:00 to 18:00). Nighttime construction work is generally not anticipated, however, it may be required in specific circumstances;	With the effective implementation of mitigation measures, net effects from Project noise and vibration during construction, operation, and maintenance are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Sensitive receptors (e.g., homes, local businesses, daycares, etc.) will be identified in the Project-specific EMS, for consideration when planning work such as implosive splicing locations; • Where geotechnical conditions and engineering requirements allow, foundation types (such as helical piles) that minimize vibration during construction will be considered; • Equipment and machinery used on site will be maintained in good working condition; • Before the use of implosive splicing, a Blasting Communication and Management Plan will be developed by the line construction contractor outlining proper storage, security, detonation, and notification requirements; • Area residents, municipal authorities, police departments, and local businesses within the zone of influence, to be identified during detailed design, will be notified by the line construction contractor about the use of implosive splicing at least one week before the work commences; • Signs shall be posted on all roadways leading to a blasting area in accordance with government rules and regulations; • A safe distance from the blasting site will be maintained for the employees, vehicles, equipment, structures, and fire hazard sources; • Blasts will be performed during pre-determined times and outside of electrical storms or adverse weather conditions; • Compression hardware will be used where required near natural features (e.g., in proximity to raptor nests, fish bearing waters) to limit noise and vibration; and • An EASR will be obtained as required to reflect a change in noise-emitting equipment at the Wawa TS and the Porcupine TS.	
Mineral resources	**Construction and maintenance:** The Project may intersect with areas and access for mining resources. Approximately 140.4 ha of active mining sites and 1.2 ha of an aggregate extraction area are anticipated to be impacted by the Project. **Operations and maintenance:** Operations and maintenance phase of the Project will include: • Maintenance of access roads; • Periodic inspection of the transmission line and associated infrastructure; and • Necessary repairs and vegetation management along the ROW to	The following mitigation is planned to address these potential effects: • Inconsistencies between legal approvals or plans will be resolved through inter-agency consultation during construction and operation of the transmission line. Consultation material will be provided to interest holders to identify and address concerns or issues. Construction activities will be coordinated with mining resource land users through ongoing engagement. Hydro One and its contractor will continue to engage claim holders, licence holders and other tenure holders, and where appropriate, recommendations or concerns will be reviewed and incorporated as possible; • To limit disturbances resulting from the construction of new access roads and trails, the Project will use existing road and trail infrastructure where practical. New access roads constructed for the Project may alleviate additional pressure on the roads; • Coordinate construction activities with mining resource land users through ongoing engagement and continue to engage claim holders and other tenure holders where appropriate;	With the effective implementation of mitigation measures, the net effects to mineral resource operations are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
	maintain transmission line safety and integrity.	• Affected landowners, lessees, licence holders, and claim holders will be notified before the beginning of construction to prevent or reduce effects to their operations or activities. Construction activities will be coordinated with tenure holders through ongoing engagement. Where applicable, affected parties will be notified with respect to crossing agreements and third-party agreements (agreements will be determined prior to construction); and • During operations and maintenance, activities will be coordinated with mineral resource land users through ongoing engagement, and Hydro One will continue to engage claim holders, licence holders, and other tenure holders, where appropriate.	
Natural environment resources – physical environment: Spills	**Construction and maintenance:** There is potential for accidental spills from the use of vehicles and heavy equipment during construction and maintenance.	The following mitigation is planned to address these potential effects: • Equipment will be inspected regularly during construction to ensure it is clean and free of leaks; • Areas impacted by a spill will be secured, and unauthorized personnel will be kept out of the affected area until further assessment and/or clean-up is conducted; • Clean-up and the disposal of contaminated materials will be managed in accordance with provincial regulations and guidelines; • Fuels, chemicals, lubricants, or other deleterious substances (including sediment) will be stored on level ground in properly contained storage areas; • Only approved aboveground petroleum storage tanks will be used during the construction phase of the Project and will be stored in designated fuelling areas and with additional temporary containment measures; • Should a reportable spill occur, the MECP Spills Action Centre, and/or the DFO will be notified as required, and containment and remediation measures undertaken; • Refuelling of vehicles and equipment will be completed in designated locations, a minimum of 30 m away from sensitive receptors (e.g., watercourses, wetlands, etc.) while utilizing emergency spill trays. In the event refuelling is required outside of designated areas, additional containment or other mitigation and spill prevention measures will be utilized; and • Fuelling operations will require the operator to visually observe the fuelling process at all times.	With the effective implementation of mitigation measures, net effects from spills are expected to be minimized.
Natural environment resources – physical environment: Waste generation	**Construction:** Construction activities will generate waste including non-hazardous and potentially hazardous waste requiring proper containment and disposal.	The following mitigation is planned to address these potential effects: • Hazardous waste (solid and liquid) should be transported by MECP licenced waste haulers to MECP registered disposal sites; • Temporary waste on-site should be placed in secured containers in designated sites away from sensitive areas and removed from the site on an ongoing basis; • All water from concrete chute washing will be contained in leak-proof containers or in an approved settling pond off site; and	With the effective implementation of mitigation measures, net effects from waste generation are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Waste produced will be minimized, segregated and recycled where possible, and all testing, handling, storage, transport and disposal of waste will be completed in accordance with all applicable legislation.	
Natural environment resources – physical environment: Excess materials management	**Construction and maintenance:** Project activities have the potential to produce excess materials during the construction and maintenance phases.	The following mitigation is planned to address these potential effects: • Prior to construction (during geotechnical investigations) or during construction, soil testing will be completed to meet the requirements of O. Reg. 306/19 and O. Reg. 153/04, if necessary; • If material is deemed suitable, Hydro One and its contractor will explore opportunities for beneficial reuse within the ROW/property parcel; • Reuse sites will be selected based on the characterization of excess soils, the need for a beneficial reuse, and the volume of excess soils required; • In the event soils are stockpiled, they will be managed in ways that are not conducive to bank swallow nesting (e.g., slopes maintained at 70° or less, and/or covered or bare soils seeded during the breeding season); • Any excess soil required to leave the site will be tracked from the Project area to the final deposit site, if required, and taken to an approved facility licenced to accept excess soil based on its characterization or other off-site location that can demonstrate beneficial reuse; • Acknowledgement from reuse sites will be obtained before the movement of excess soils; and • A notice of activity will be submitted to the MECP for the Project, if required.	With the effective implementation of mitigation measures, no net effects from Project excess materials are predicted.
Natural environment resources – atmospheric environment: Climate change	**Construction and maintenance:** Emissions will be generated from vehicles and equipment which will contribute to greenhouse gases responsible for climate change. **Operation:** The transmission line may be susceptible to effects of climate change such as increased frequency and severity of storms, including high winds, lightning, heavy precipitation, etc.	The following mitigation is recommended to address these potential effects: • Equipment will be properly serviced and maintained; • Idling of construction vehicles and equipment will be kept to a minimum and GPS or other navigation tools will be used in vehicles to optimize routing; and • Hydro One, as a licenced transmitter, complies with NERC Reliability Standards to ensure the reliability and security of the transmission system.	With the effective implementation of mitigation measures, no net effects to climate change are predicted.
Natural environment resources – atmospheric environment: Air quality	**Construction and maintenance:** Potential for fugitive dust and impacts to air quality from vehicle emissions.	In addition to the applicable mitigation outlined above, the following additional mitigation is planned to address these potential effects: • Vehicles will not exceed posted speed limits; • Minimize and stabilize vehicular traffic and exposed soils in high traffic areas with suitable cover material; • Avoid excavation and other construction activities that have the potential to release airborne particulates during excessively windy periods, to the extent practical;	With the effective implementation of mitigation measures, net effects to air quality from the Project are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• If excavation or other construction activities with a potential to release airborne particulates must occur during windy conditions, dust controls will be utilized; • Cover or otherwise contain loose construction materials with the potential to release airborne particulates during transport, installation or removal to the extent practical; • Disturbed areas will be restored as soon as practical to minimize the duration of soil exposure; and • Effective dust suppression techniques, such as on-site watering, will be implemented as necessary. Non-chloride dust suppressants will be used.	
Natural environment resources: Noise and vibration	**Construction and maintenance:** Potential disturbance as a result of noise, including potential use of implosive splicing and their associated increased vibrations levels. Indirect noise disturbance effects on wildlife during construction can include temporary declines in habitat occupancy, as well as changes to mobility and feeding habitat patterns. **Operation:** Station upgrades at Wawa TS and the Porcupine TS include the installation of a new 500 kV autotransformer, which will increase the baseline noise emissions at the stations.	Refer to the mitigation for noise and vibration under the land use and communities section above.	With the effective implementation of mitigation measures, net effects from Project noise and vibration during construction, operations, and maintenance are expected to be minimized.
Natural environment resources – surface water resources, surface water quantity: Vegetation removals and soil rutting	**Construction:** Potential for construction activities (vegetation removal, access road construction, discharge of construction water) to result in an increase in overland flow of water to nearby aquatic features (i.e., watercourses, waterbodies, wetlands) affecting surface water quantity.	The following mitigation is planned to address these potential effects: • Where practical, activities with potential to cause rutting, ponding/channelization or erosion will be planned during stable and dry ground conditions; • Existing watercourse crossings and constructed access roads will be utilized to the extent practical; • The use of ESC measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be utilized, where necessary; • The use of constructed access (e.g., mats or geotextile/crushed stone) roads will be utilized and will be monitored to ensure there is no surface ponding to minimize rutting and pooling of water; • Equalizing culverts will be installed under constructed access routes where necessary to prevent water pooling and allow for overland flow; Where erosion is a concern, exposed soils in previously vegetated areas will be re-vegetated as practical or have other erosion or sedimentation measures applied as necessary; • Where applicable and possible, vegetative buffers will be maintained to protect sensitive receptors;	With the effective implementation of the mitigation measures described above, vegetation removals and temporary soil rutting are not anticipated to have a long-term net effect on surface water quantity in the receiving watercourses and waterbodies.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Temporary construction access and laydown areas will be restored following completion of construction; • Work will be staged to minimize the extent of exposed soils (i.e., bare soils without vegetative cover or ESC such as coir blankets) at any given time; • Topsoil will be stockpiled in designated areas away from water features and containment measures such as ESC will be utilized, as appropriate; • Disturbed areas will be stabilized and restored as soon as practical; • Equipment operation adjacent to watercourses, waterbodies and wetlands will be minimized, where possible; • Works adjacent or around water feature banks will be conducted during appropriate conditions and times of the year (e.g., dry or frozen conditions), to the extent practical; • Vegetation removals will be minimized to the extent practical. Compatible vegetation will be retained within areas adjacent to watercourses and waterbodies; • The limits of vegetation removals will be clearly marked; • Tree limbs will be disposed of by chipping or removal to designated areas - chipping is not permitted in or within 30 m of watercourses and waterbodies; • Burning of woody material will be avoided where feasible; • Stumps will be cut flush to the ground where possible, with a maximum permissible height of 15 cm; • Mechanical equipment (e.g., grubbing) will be restricted near sensitive environmental areas. Manual methods (e.g., hand clearing with chainsaws) will be required within watercourse and waterbody banks/riparian areas; • Compatible vegetation will be replanted (e.g., shrubs and MTO/MNR seed mix) as required; • Chips spread on the ROW will not exceed 15 cm in depth to allow for vegetation re-growth; • Salvable wood will be removed in sensitive areas by winching or by hand where possible; • Skidding on steep slopes or through watercourses, waterbodies and wetlands will not be permitted; • Brush will not be piled within 15 m of any watercourse or waterbody; • The MRCA will be consulted, and permits obtained, where appropriate, regarding ESC measures within regulated areas during detailed design; • Where required, temporary crossing structures will be installed for construction access at watercourses, waterbodies and other low-lying areas and will be removed upon completion of construction; • Constructed access (e.g., mats or geotextile/crushed stone) roads will be utilized where possible and will be monitored to ensure there is no surface ponding to minimize rutting and pooling of water;	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• During excessive wet weather, or flood-like conditions the following mitigation measures will be implemented: re-schedule work or reduce/detour traffic in areas where soils are prone to rutting; restrict construction traffic, where feasible, to equipment with low-ground pressure tires or wide pad tracks; during extreme wet conditions, work only in low-risk areas, such as well-drained soil or well-sodded lands, until conditions improve; limit vehicle access through soft/wet areas to periods when frozen conditions occur (i.e., early morning or evening); crews will park in a stable area and walk to on-site equipment if feasible; install applicable ESC measures; and • Cleared vegetation will be relocated to designated areas away from water features.	
Natural environment resources – surface water resources, surface water quantity: Access roads	**Construction:** Potential impacts to surface water flows resulting from access road construction.	The following mitigation is planned to address these potential effects: • Access roads may be left in place depending on the nature and environmental sensitivity of the area, landowner agreement, and need for maintenance and access for emergency repairs in the future; • Existing, natural drainage patterns and flows will be identified and maintained to the extent practical; • Equalization culverts or similar methods may be used in construction of access roads. If surface water accretion issues are identified during construction, remedial measures (e.g., retroactive installation of equalization culverts within temporary access roads) will be undertaken promptly; • Existing watercourse and waterbody crossings and constructed access roads will be utilized to the extent practical; • ESC measures (e.g., erosion blankets/coir mats, silt socks, etc.) will be used where necessary; • Where required, crossing structures (e.g., bridges, culverts, or constructed fords) will be installed for construction access at watercourse, waterbodies, and other low-lying areas. Structures may be removed following construction or left in place to facilitate future maintenance and access if maintenance or emergency repairs are required; • Fording will be avoided to the extent possible. In the event that fording is required, it will be either a one-time crossing (over and back) in flowing water conditions or multiple crossings when the streambed is seasonally dry. Fording will be limited to clearing and bridge installation equipment crossing watercourses with stable beds and low sloping banks or approaches. Any fording will follow DFO's Code of Practice for Temporary Fords (December 2025); • Crossing structures will be designed to accommodate the appropriate flood levels for the length of time they are planned to be in use; • Permits will be obtained under section 28 of the *Conservation Authorities Act,* where required prior to installing crossing structures;	With the effective implementation of mitigation measures, installation of temporary and permanent access roads is not anticipated to have a long-term net effect on surface water quantity in the receiving watercourses and waterbodies.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Specific ESC measures for each crossing will be included in permit applications; and • A Request for Review will be submitted to DFO, prior to construction. For works following a DFO code of practice, a notification form will be submitted to DFO and all applicable mitigation measures outlined in the code of practice will be implemented.	
Natural environment resources – surface water resources; surface water quantity: Construction work within areas regulated by the MRCA	**Construction:** Potential for infrastructure (towers, watercourse crossings) to be located within Conservation Authority regulated lands. **Maintenance and operation:** Hydro One may require access and permissions to conduct maintenance work on the transmission line and/or structures within regulated area.	The following mitigation measures are planned to address these potential effects: • MRCA will be consulted during detailed design and construction planning; • Design of the transmission lines will avoid or minimize the extent to which transmission towers are located within regulated areas, to the extent practical; • If necessary, a permit for applicable development activities under O. Reg. 41/24: Prohibited Activities, Exemptions and Permits will be obtained through the MRCA and prior to construction; • Construction work (e.g., tower construction) within Regulated Areas will be conducted during stable (frozen/dry) ground conditions to the extent practical (acknowledging that this will likely not be feasible in all situations); and • Temporary construction access through regulated areas may involve additional ESC or other environmental mitigation measures.	With the effective implementation of mitigation measures, net effects associated with construction within regulated areas are expected to be minimized.
Natural environment resources – surface water resources; surface water quality: Erosion and sedimentation	**Construction:** The temporary exposure and disturbance of soil with the potential for wind and water erosion and the transport of sediment to aquatic features, and the temporary accumulation of cleared vegetation with the potential for mobilization of organic debris and its transport to aquatic features during runoff events as a result of earthworks and site preparation.	The following mitigation is planned to address these potential effects: • An ESC plan will be developed prior to construction and ESC measures will be identified and implemented as required. Measures such as erosion blankets/coir mats, silt socks, sediment fencing, or similar, are expected to form part of the ESC plan, where appropriate; • Areas with high erosion potential will be identified and avoided, where possible; • Construction activities near sensitive features or areas may be suspended during extreme wet weather events. Crews will review and consider weather forecasts in their planning of such work; • ESC installations will only be removed after disturbed areas are restored, accumulated sediment has been disposed, and construction activities in the vicinity are completed; • To reduce potential erosion, mechanical or vegetative erosion control measures will be employed, such as buffer strips, erosion control blankets, and sediment fences, as required; • Equipment operation on slopes adjacent to watercourses and waterbodies will be minimized to the extent practical; • Disturbed areas near watercourses, waterbodies, wetlands, or sensitive environmental areas will be restored as soon as practical; and • ESC measures will be regularly inspected, including after each significant rainfall event (greater than 25 mm in 24 hours) and repaired where necessary to maintain functionality.	With the effective implementation of mitigation measures, net effects associated with erosion and sedimentation are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
Natural environment resources – groundwater resources: Groundwater quality	**Construction:** Disturbance of contaminated soil has the potential to contribute to groundwater contamination.	Refer to the mitigation for spills and waste management under the physical environment section; and vegetation removals, soil rutting, and erosion and sedimentation under surface water resources.	With the effective implementation of mitigation measures, net effects on groundwater quality are expected to be minimized.
Natural environment resources – groundwater resources: Groundwater quantity	**Construction:** Dewatering activities have the potential to result in changes to groundwater levels. In addition, disturbance and compaction of soil at the surface has the potential to inhibit surface water infiltration and affect groundwater recharge.	Refer to mitigation under surface water resources. Additional recommended mitigation includes: • Construction water will be discharged in compliance with permits and/or approvals from MECP, and the relevant municipalities, as required; • A construction water management plan will be developed prior to construction and implemented appropriately (e.g., passing discharge water through a filter bag or drum before discharge to the environment to capture sediment and slow down the water velocity, etc.); • Where possible, opportunities to maximize retention times and reduce surface flow velocities will be implemented; • Where geotechnical conditions and engineering requirements allow, foundation types (such as helical piles) that minimize the amount of construction dewatering required will be utilized; • Where practical, discharge of construction water is to occur at least 30 m away from sensitive receptors (e.g., watercourses, wetlands, etc.). If discharge of construction water must occur within 30 m of a watercourse or wetland, additional ESC will be utilized; • If deemed necessary, a hydrogeological assessment will be conducted to inform construction planning, permitting, and management; • Equipment with low bearing capacity will be used, where practical; • Existing access roads will be used, where practical; and • Temporary access roads and work pads will be built using measures such as mats or geotextile and gravel, or equivalent means, which can be easily removed when construction is complete.	With the effective implementation of mitigation measures, net effects on groundwater quantity are expected to be minimized.
Natural environment resources: SWP	**Construction:** Potential for impacts to source water resources during construction activities.	In addition to the applicable mitigation outlined above, the following mitigation is planned to address these potential effects: • Maintain an Emergency Response Plan and have readily accessible cleanup materials and equipment at all times during construction and maintenance activities; • Remediate spills/leaks as soon as possible upon identification and notify the MECP Spills Action Centre, as required; • Conduct refuelling in designated areas with appropriate protective measures and equipment available; and	With the effective implementation of mitigation measures, net effects on municipal drinking water sources are expected be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Locate refuelling areas outside of SWP areas to the extent practical. If refuelling must occur within SWP areas, additional protective measures (emergency spill trays, etc.) may be employed as necessary. • Identify and protect SGRAs and HVAs during construction and maintenance activities, as required; • Comply with relevant legislation and policies such as: *Clean Water Act*, PPS, applicable municipal OPs, and the Mattagami Region SPP, where applicable; • Fuels, chemicals, lubricants or other deleterious substances will be stored on level ground in properly contained storage areas; • Only approved aboveground petroleum storage tanks will be used during the construction phase of the Project and will be stored in designated fuelling areas and with additional temporary containment measures outside of designated SWP areas; and • Consult with the MRCA, the MECP, and the local municipalities during detailed design and construction planning as needed regarding Project-specific mitigation measures.	
Natural environment resources – designated or special natural areas: ANSIs	As noted under **Section 4.6.6.1**, no ANSIs were identified within the PSA; therefore, no effects on ANSIs are anticipated as a result of the Project.	Not applicable.	No effects are predicted.
Natural environment resources – designated or special natural areas: IBAs	As noted under **Section 4.6.6.2**, no IBAs were identified within the PSA; therefore, no effects on IBAs are anticipated as a result of the Project.	Not applicable.	No effects are predicted.
Natural environment resources – designated or special natural areas: Lake trout lakes, historical fish stocking areas, and fish activity areas	**Construction and maintenance:** Potential disturbance to lake trout lakes, historical fish stocking areas, and fish activity areas as a result of vegetation loss, soil erosion, sedimentation, and the installation of temporary watercourse crossings.	Refer to mitigation under surface water resources and SWP. Additional mitigation to be implemented includes: • Construction activities for the Project will be restricted to designated work areas; • Wherever practical, access to the construction areas for the Project will utilize existing access roads; • Where construction access in riparian areas cannot be avoided, temporary access roads and work pads will be built using measures such as mats, geotextile, gravel, or equivalent means, which will protect the underlying soils during construction and can be easily removed when construction is complete and ESC measures will be identified and implemented where appropriate; • No maintenance or fuelling of machinery and/or vehicles will be permitted to occur within 30 m of lake trout lakes to avoid potential spills (e.g., fuel, oil, lubricant) from migrating and entering aquatic habitats. If such work must occur within 30 m of a lake trout lake due to unforeseen circumstances, additional spill protection measures (e.g., portable containment) will be utilized. Spill kits will be located in work areas to mitigate the effects of accidental spills or releases, should they occur during construction.	With the effective implementation of mitigation measures, no net effects on lake trout lakes, historical fish stocking areas, or fish activity areas are anticipated.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Additional materials (i.e., riprap, filter cloth, and silt fencing) should be readily available in case they are needed promptly for erosion and/or sediment control.	
Natural environment resources – designated or special natural areas: EMAs, provincial parks, and conservation reserves	**Construction and maintenance:** Potential disruptions to access and impacts to EMAs, provincial parks, and conservation reserves.	General mitigation measures planned to be implemented include: • Temporary laydown areas and temporary construction camps will not be located within provincial parks and/or protected areas; • Vegetation removals will consist of cutting tree trunks parallel to and within 15 cm of the ground or lower, as well as the removal of shrubs, debris, and other materials. Grubbing may be required along some parts of the ROW. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth and duff layer undisturbed to prevent erosion; • Minimize the extent of vegetation clearing required for the Project; vegetation will be clearly delineated between areas to be retained and cleared; • The number of structures within EMAs, provincial parks, and conservation reserves will be minimized through structure siting and span optimization during detailed design, to the extent practicable; • Blasting and the storage of materials and equipment within protected areas will be avoided where reasonably possible; • To reduce impacts on canoe routes and portages, vegetation removals around important canoe routes and associated portages will be limited where necessary for safety. To ensure accessibility and safety for recreational users, the existing grade of the portage will be maintained, paths will be kept clear of debris, and visibility will be preserved on either side of the ROW and access roads. • Where practical, compatible vegetation will be retained to meet regulatory requirements and minimize visual disturbance for recreational users. Additional mitigation measures outlined in the wildlife and SWH row of this table will be implemented; • Indirect effects on land use quality in parks, conservation reserves, and/or protected areas will be reduced by implementing the mitigation measures outlined in the natural heritage rows of this table; • To support park, conservation reserve, and EMA use, signs will be installed on the ROW indicating park boundaries, canoe portage routes, hiking trails, as well as alternate access points to park users. Construction routes will be designed to avoid key access roads/entrances to parks and protected areas to the extent practical, in engagement with parks and protected area administrators. Signage will also be used to notify road users of road or lane closures, and other disturbances to local roads; • ESC measures will be installed prior to beginning construction, and maintained throughout construction, where required, to reduce the potential for water runoff to carry soil and other sediment into nearby water features or sensitive environmental areas;	With the effective implementation of mitigation measures, net effects to EMAs, provincial parks, and conservation reserves are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Hydro One will work with SFL holders to manage merchantable timber cleared by the Project; and • New, on-ROW trails will be reclaimed, and topsoil will be rolled back over the reclaimed road. Areas that are subject to erosion, and waterbody crossing locations that have been removed after construction will all be seeded in accordance with applicable policies and/or regulations, to promote plant species establishment during reclamation, as soon as feasible after construction. The following mitigation is planned for access roads and traffic management: • Existing access roads and trails will be used to limit disturbances to EMAs resulting from the construction of new access roads, where practical; • Access roads will be designed to minimize reversing and the use of backup alarms near residential areas. In parks, conservation reserves, and protected areas, designs will prioritize minimizing environmental disturbance wherever reasonably possible; • To minimize future potential access development impacts, some access roads may be permanently left in place to support long-term inspection and maintenance activities and for use/integration with other industrial operations (e.g., forestry); • The Project will implement an Access Plan that will set out the strategy to access new or existing roads, entrance approaches, water crossings, and temporary workspaces within the Project scope; • The number, location, and characteristics of existing and proposed new access roads to be used for the Project will be refined through detailed planning work and through consultation with the applicable organizations; • The ROW will be approximately 75 m in width and construction activities will be limited to surveyed and marked areas. Existing roads or trails that connect to the Project ROW may be used (including access along adjacent existing transmission line or utility corridors) and in some cases may require upgrades or improvements. However, where travel in the ROW with heavy equipment is not possible due to terrain, ground conditions, or environmental sensitivities, new roads or trails will be developed within the ROW as appropriate; • In the event there are no existing roads or trails that connect to the ROW, new roads may be built, with the appropriate permits or authorizations prior to construction, as applicable. New access roads and waterbody crossings will be designed and constructed in accordance with municipal, provincial, and federal guidelines, where applicable; • Where existing roads and trails are used, these areas will be reclaimed to their pre-existing condition to the extent practical; • The reclaimed on-ROW access road will naturally vegetate along with the remainder of the ROW and will be managed to support vegetation that is compatible with the safe operation of the transmission line; and	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• A Traffic Management Plan will be developed for the Project prior to the start of construction activities and will be shared with local municipalities as necessary. Potentially affected stakeholders will be engaged regarding the placement of permanent fencing and gates. The following scheduling-related mitigation measures are planned: • Work will be scheduled in wet areas during frozen conditions, where reasonably possible. Known natural, cultural, and recreational values will be marked clearly (e.g., rare vegetation communities, wetlands, SWH) and associated setbacks will be established. Project personnel will avoid areas that are flagged or fenced and abide by restrictions on in/out privileges; • If excessive wet weather or flood-like conditions occur, the following measures will be implemented as appropriate: re-schedule work or reduce/detour traffic in areas where soils are prone to rutting; restrict construction traffic, where feasible, to equipment with low-ground pressure tires or wide pad tracks; during extreme wet conditions, work only in low-risk areas, such as well-drained soil or well-sodded lands, until conditions improve; limit vehicle access through soft/wet areas to periods when frozen conditions occur (i.e., early morning or evening); crews will park in a stable area and walk to on-site equipment if feasible; install access or swamp matting in sensitive areas to protect soils; if required, silt fencing or other methods of ESC measures will be installed; and • Construction activities will also typically occur during one 10-hour shift per day, generally within the daytime period (i.e., 07:00 to 18:00). Nighttime construction work is generally not anticipated; however, it may be required in specific circumstances. The following mitigation measures are planned for emissions management: • Water used for dust suppression will be brought to the site by tanker truck. Permits for this will be acquired, if necessary; • Waste will be appropriately stored, transported, and disposed of according to applicable provincial and federal laws and regulations; • Local municipal noise bylaws and the MECP Model Municipal Noise Control Bylaw [i.e., NPC-115 (1978)] will be complied with including making sure equipment used is well maintained and operated so as not to exceed the Health Canada Noise Guidance and MECP NPC-300 (2013) noise guideline on ambient noise levels; • Vehicles and equipment will be operated so that impulsive noise is minimized including turning off vehicles and equipment; and minimizing reversing where possible, reasonable, and practical; • Noise concerns will also be further addressed as they arise as Hydro One is contacted; and	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• In the event construction will occur beyond the daytime period, Hydro One and its contractors will review mitigation measures. Consultation and engagement are planned as follows: • The Project will utilize a Communications Plan for Project updates such as providing advance notice of construction activities to park users through notification in local newspapers and at park locations (e.g., park entrances). A minimum 48-hour notification in advance of major activities commencing will be provided to Indigenous communities, directly affected landowners or as otherwise required by permits/approvals. Details of construction activities/schedule will be made available via the Hydro One Project website; • The Communications Plan will also establish protocols for both formal and informal communications with Indigenous communities, project stakeholders, rights-holders and other organizations. This can include consulting with park and conservation administrators to implement appropriate restriction protocols during maintenance activities in parks and protected areas to avoid or reduce effects to perceptions of land quality by park users; • Additionally, the Project will engage with Indigenous communities as it relates to natural, cultural, and recreational resources in provincial parks and conservation reserves; • The Project will work with parks and/or conservation reserve administrators and appropriate agencies during construction and operation regarding restrictions within affected conservation reserves and protected areas as required. Work will seek to promote user access while maintaining user safety; and • Additionally, Hydro One and its contractors will continue to consult with the appropriate agencies and organizations to develop strategies to facilitate continued and uninterrupted use and access to natural, cultural, and recreational areas. Potentially affected stakeholders will be engaged about the placement of permanent fencing and gates as applicable. The following mitigation measures are planned during operation and maintenance: • Operation and maintenance activities will follow applicable standards for the removal of any non-compatible vegetation from the ROW; • It is the preference to use the Project's ROW; however, where travel in the ROW with equipment is not possible due to terrain, ground conditions or environmental sensitivities, existing roads or trails that connect to the Project ROW may be used (including access along adjacent existing transmission line or utility corridors) and in some cases may require upgrades or improvements; • Hydro One will plant seedlings along new off-ROW access roads in conservation reserves and provincial parks (limited to roads that require new clearing and new	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		construction). Where existing roads and trails are used, these areas will be reclaimed to their pre-existing condition to the extent practical; • The reclaimed on-ROW access road will naturally vegetate along with the remainder of the ROW and will be managed to support vegetation that is compatible with the safe operation of the transmission line; • New, on-ROW trails will be reclaimed, and topsoil will be placed back onto the reclaimed road. Areas that are subject to erosion, and waterbody crossing locations that have been removed after construction will be seeded in accordance with MNR, or other applicable regulatory agency, requirements to promote plant species establishment during reclamation, as soon as feasible after construction; • The Communications Plan will establish protocols for both formal and informal communications with Indigenous communities, project stakeholders, rights-holders, and other organizations. This can include engaging with park and conservation administrators to implement appropriate restrictions during maintenance activities in parks and protected areas to avoid or reduce effects to land quality by park users; • Hydro One and its contractors will work with FMUs to manage merchantable timber cleared from the Project. Trees of merchantable value will be felled, de-limbed, mulched, or piled at the edge of the ROW as required; • Small trees and branches will be dispersed on the ROW or piled and burned on-site in accordance with the *Forest Fires Prevention Act* and Regulation 207/96 Outdoor Fires under this Act; • Slash and debris resulting from mechanical clearing operations will be spread to ensure depths do not exceed 0.3 m or will be piled and burned. Slash and debris windrows are not expected to be required, but if they are required the windrows will be left open at all roads or access trails, along property lines, and along wetlands and watercourses to provide access for wildlife not capable of crossing the low vegetation pile. The windrows will be allowed to decompose naturally; and • Areas of non-merchantable vegetation that must be removed will be piled and burned or mulched. Where piling and burning is prescribed, trees will be sheared at the stump using bulldozers equipped with shear blades, or other appropriate means.	
Natural environment resources – natural heritage features: Vegetation communities	**Construction:** Construction of the transmission line will require the removal of approximately 2,083 ha of incompatible vegetation within the ROW. **Maintenance:** Incompatible vegetation will be managed within the ROW to allow for the safe and reliable operation of the	The following mitigation is planned to address these potential effects: • Minimize the extent of vegetation removals required for the Project; vegetation will be clearly delineated between areas to be retained and removed; • During construction, existing access roads or trails will be used as much as possible to limit disturbance resulting from construction of new access roads and trails; • Mechanical vegetation removal will be used;	Incompatible vegetation removal will not represent a net loss of vegetation on the landscape, but rather a transition from vegetation that is incompatible with transmission line corridors to vegetation that is

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
	transmission line.	• Chips spread on the ROW will not exceed 15 cm in depth to allow for vegetation regrowth; • Equipment that minimizes surface disturbance, soil compaction, and topsoil loss will be used where practical; • Compatible vegetation, coarse woody debris and plants and other sensitive plants identified during clearing activities will be retained where feasible and will be considered for further mitigation action as appropriate; • Incompatible vegetation will be salvaged or felled as appropriate; • Tree removals adjacent to watercourses will be cut such that their root systems remain intact to maintain soil stability, and compatible bank/riparian vegetation will be retained to the extent practical; • Tree and vegetation removals will be completed outside of the migratory bird breeding season (i.e., April 1 through August 31) and the bat active season (i.e., April 1 through September 30) where practical; • Where vegetation clearing is required during the migratory bird breeding season, due diligence nest searches will be conducted by a qualified professional. In the event an active migratory bird nest is identified, a qualified professional will demarcate a protective buffer zone around the nest, which will remain until the nest can be confirmed as inactive by the qualified professional; • Where vegetation clearing is proposed within identified SAR bird or SAR bat habitat during the active season, site-specific clearing mitigations and/or appropriate consultation with the MECP and ECCC will be undertaken; • Snags (dead standing trees) and cavity trees that do not pose a risk to the construction or operation of the transmission line will be identified and retained to the extent practical; • Where possible, treed areas disturbed and/or removed during construction will be restored following completion of construction with compatible species (e.g., shrubs and MTO/MNR seed mix), or areas will be reclaimed through natural revegetation; • Prior to reclamation activities, a reclamation plan will be developed; • Reclamation and clean-up activities will occur throughout construction. These activities will include removing refuse and waste materials, grading disturbed areas, contouring disturbed slopes to a stable profile, and re-establishing natural drainage patterns; and • The Biodiversity Initiative will include actions to fund opportunities to create or enhance habitat benefits to the region.	compatible. With the effective implementation of mitigation measures, net effects to vegetation communities are expected to be minimized.
Natural environment resources – natural heritage features: Wetlands	**Construction:** Potential impacts to 470 ha of wetlands within the ROW. Effects may occur as a result of vegetation loss, change in vegetation composition, accidental spills, soil erosion, and sedimentation.	Refer to mitigation for spills under the physical environment section, soil rutting and vegetation removal under the surface water resources section, and woodlands under the natural heritage features section. Additional mitigation measures to be implemented include:	Net effects include permanent removal of incompatible vegetation to ensure the safe operation of the transmission line. Incompatible vegetation

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Tower locations, work activities, access, and vegetation removals within wetlands will be minimized to the extent practical; • Where practical, incompatible vegetation within wetland communities will be cut during firm soil conditions and will be restored with compatible vegetation; • Construction activities will be restricted to designated work areas, with the limits of wetlands demarcated to limit construction activities within wetland communities where practical; • Wherever practical, access to the construction areas for the Project will utilize existing access roads; • Where construction access in wetlands cannot be avoided, temporary access roads and work pads will be built using measures such as mats, geotextile and gravel, or equivalent means, which will protect the underlying soils during construction and can be easily removed when construction is complete; • Equalization culverts, French drains or similar measures may be employed as necessary for any constructed access required within wetlands to maintain surface flow and drainage patterns during construction; • No maintenance or fuelling of machinery will be permitted to occur within 30 m of the wetland to avoid potential spills (e.g., fuel, oil, lubricant). If such work must occur within 30 m of a wetland due to unforeseen circumstances, additional spill protection measures (e.g., portable containment) will be utilized; • Wetland areas impacted during construction (directly or indirectly) will be restored post construction; • Additional materials (i.e., rip rap, filter cloth, and silt fencing) should be readily available in case they are needed promptly for erosion and/or sediment control; • An ESC Plan will be developed to identify mitigation for wetland communities and will identify locations for protective fencing; and • The Biodiversity Initiative will include actions to fund opportunities to create or enhance habitat benefits to the region.	removal will not represent a loss of vegetation on the landscape, but rather a transition from vegetation that is incompatible with transmission line corridors to vegetation that is compatible. With the effective implementation of mitigation measures, net effects to wetlands are expected to be minimized.
Natural environment resources – natural heritage features: Fish and aquatic habitat	**Construction and maintenance:** Potential disturbance to fish habitat as a result of vegetation loss, soil erosion, sedimentation, and the installation of temporary watercourse crossings.	Refer to the mitigation for spills, surface water resources, SWP, and wetlands. Additional planned mitigation measures include: • In instances where trees within riparian areas require removal, their root structures will remain intact (i.e., grubbing will not be conducted within riparian areas) as a mechanism to maintain their current soil stabilization characteristics; • Fish-bearing watercourses are recommended to be spanned with a single lane bridge; • In the event in-water work is required to support the construction of potential watercourse crossings, necessary permits and approvals from MECP, MRCA (if applicable), and DFO will be obtained in advance; • In the event in-water works are required, works will not be conducted between April 1 and July 15 in rivers with spring spawning species present, or between	With the effective implementation of mitigation measures, net effects to fish and fish habitat are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		September 1 and June 15 in rivers with fall and/or winter spawning species present, without the appropriate authorization or permits in place; and • Other potential disturbances to fish and aquatic habitat resulting from construction activities near water would be minimized through the development of an ESC plan including mitigation measures such as constructing temporary watercourse crossings during low flow conditions, retaining stream bank vegetation where practical, and storing materials away from water features; • No fuelling or maintenance of vehicles and/or equipment would be permitted within 30 m of a watercourse to prevent potential spills (e.g., fuel, oil, lubricant) from entering aquatic features. • If detonations or charges for implosive splicing are required, an adequate setback distance is required from fish-bearing watercourses or waterbodies to comply with the Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (DFO, 1998).	
Natural environment resources – natural heritage features: Woodlands	As noted in **Section 4.6.7.6**, no significant woodlands have been identified within the LSA through a review of the applicable municipal OPs. Effects to vegetation communities are addressed in **Section 7.5.8.1**.	Not applicable.	No effects are predicted.
Natural environment resources – natural heritage features: SAR	**Construction and maintenance:** Potential disturbance to SAR and SAR habitat during construction and maintenance activities.	Refer to mitigation related to vegetation removal under surface water resources, as well as mitigation under vegetation communities, noise and vibration, and wildlife and wildlife habitat. Additional mitigation measures to be implemented include: • Impacts to potential SAR habitat will be avoided, where possible. In the event impacts cannot be avoided, MECP and/or ECCC will be consulted regarding registration/permitting/approval requirements during detailed design; • Boundaries of SAR habitats will be identified and flagged off; • To the extent possible, incompatible vegetation/trees with the potential to provide SAR habitat will be removed/trimmed to the extent that they no longer pose a risk to overhead transmission lines while still maintaining their potential SAR habitat characteristics; • Construction personnel will be aware of the potential presence of, and be able to identify, SAR with the potential to occur within the general work areas; • Should SAR be encountered during construction activities, activities will be stopped until it has been determined that harm will not occur. The required activities will be assessed to determine whether the work/schedule can be modified, or mitigation measures employed, to avoid potential effects on SAR and their habitat; • If avoidance of SAR and/or SAR habitat is not possible, MECP and/or ECCC will be consulted in advance of construction to discuss detailed mitigation measures	Permitting under the applicable provincial SAR legislation and/or SARA will be obtained in advance of construction, where necessary. With the effective implementation of mitigation measures, net effects to SAR are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		and/or assess the need for registration/permitting/approvals under the applicable provincial SAR legislation in effect at that time or SARA; • If a SAR is harmed or killed as a result of work activities, the MECP and/or ECCC will be notified, and the relevant work activities will cease within the immediate area until the species has been removed by personnel authorized to handle SAR; and • SAR observed during construction activities will be reported to the MECP and/or ECCC, as required.	
Natural environment resources – natural heritage features: SAR birds	**Construction and maintenance:** Alteration or loss of SAR bird habitat and alteration of SAR bird movement.	In addition to the mitigation outlined under SAR above, the following additional mitigation is planned: • Removal of trees and vegetation will be scheduled outside of the breeding bird season (April 1 to August 31), where practical. Should any active nests be found within the PSA, a species-specific setback from the nest should be established by a qualified professional, until the nest is no longer occupied. Confirmation of nest inactivity will be confirmed by a qualified professional, prior to encroachment into the buffer. If no nests are identified by a qualified professional, vegetation removals will take place.	With the effective implementation of mitigation measures, net effects are anticipated to be minimized.
Natural environment resources – natural heritage features: SAR bats	**Construction and maintenance:** Alteration or loss of SAR bat habitat and alteration of SAR bat movement.	In addition to the applicable mitigation outlined above, the following additional mitigation is planned to address these potential effects: • Snags (dead standing trees), cavity trees, and shrubs with the potential to provide SAR bat habitat that do not pose a risk to the operation of the transmission line will be identified by a qualified person and retained to the extent practical; • Habitat removal during the bat active period (April 1 to September 30) will be avoided to the extent feasible. Tree and shrub removals should take place during the non-active bat period (October 1 to March 31); • During the detailed design phase, potential impacts to confirmed bat habitat and bat species will be assessed on the Project footprint and avoided to the extent possible. If avoidance is not possible, mitigation measures will be used to reduce the risk of impacts to SAR bats and/or their habitat and will be included in the SAR Conservation Plan and Project-specific EMS; • Assess for maternity roosts along the preferred route before construction for habitat retention, to the extent practical; • Educate contractors by informing them of the bat species in Ontario which receive species and habitat protection; • Where potential SAR bat habitat (i.e., trees or shrubs with 10 cm or greater diameter at breast height with supporting roosting characteristics) requires removal, bat visual exit and/or acoustic surveys will be completed during the month of June in accordance with agency approved protocols to determine SAR bat use (or lack thereof); and	Permitting and/or registrations under the applicable provincial SAR legislation and/or SARA will be obtained in advance of construction, where necessary. With the effective implementation of mitigation measures, net effects to SAR are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Should SAR bat habitat be confirmed in the ROW, the MECP will be consulted to determine if the aforementioned mitigation measures are sufficient or if registration/permits are required under the applicable provincial SAR legislation in effect at that time.	

Natural environment resources – natural heritage features: Wildlife and SWH	**Construction:** Alteration or loss of wildlife habitat, including habitat fragmentation due to effects on treed communities, wetlands, and fish and aquatic habitat.
	
	Alteration of wildlife movement due to sensory disturbances (e.g., noise and vibration, light) from the operation of heavy vehicles and equipment.
		Refer to mitigation related to vegetation removal for surface water resources, as well as mitigation under vegetation communities, fish and aquatic habitat, and noise and vibration. Additional planned mitigation measures include:
		• Boundaries of important wildlife habitats will be identified, and the ROW boundaries flagged before clearing;
		• Bird diverters and/or similar measures will be utilized within 400 m of known raptor nests;
		• Snags and cavity trees with the potential to support bats will be retained, to the extent practical;
		• Use of implosives and helicopters will be avoided within a 400 m radius of documented bald eagle and raptor nests during the species nest-building and rearing season (March 1 to August 31). If activities with a high risk of disturbing active nests must occur within the stated buffer zones during the breeding and rearing season, the nests will be monitored by a qualified biologist during this work and work will be paused if the bird's behaviour indicates signs of disturbance;
		• Stick nests on transmission structures will be left undisturbed if eggs or young are in the nest until the young have fledged, unless there is an immediate safety concern. If no eggs or young are observed, the nest will be removed;
		• In the event that removal of stick nests is deemed to be required during detailed design or construction, Hydro One and its construction contractor will engage the MNR to determine permitting requirements;
		• Tree/vegetation removals will be avoided during the migratory bird breeding season (i.e., April 1 to August 31) where practical. In the event vegetation removal is required during this period, the following mitigation measures will be implemented:
		  ○ Engage a qualified professional to conduct pre-construction migratory bird nest sweeps of the work areas if vegetation clearing will occur during the migratory bird breeding season (i.e., April 1 to August 31). Vegetation removals are recommended within 48 hours of the nest sweep but can be completed up to seven days following the nest sweep based on the recommendation of the qualified professional. If active nests are encountered in the work area or immediately adjacent to the work area, the contractor will:
		  ▪ Establish an appropriate setback to the nest, as determined by a qualified professional;
			With the effective implementation of mitigation measures, net effects to wildlife and SWH are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		▪ Flag or stake the outer boundary of the setback (preferably with discrete rope or tape to avoid attracting predators to the area through the use of brightly coloured markings); and ▪ Monitor active bird nests during the implementation of work to identify what level of disturbance the work is having on the nesting birds. Nests will be monitored to determine when a nest is no longer active, and the protective buffer can be removed. • Where vegetation removal is required during the bat active period, suitable roosting trees (as determined by a qualified professional) will not be removed between April 1 and September 30 unless otherwise authorized by MECP; • Super canopy trees (i.e., exceptionally tall trees) will be retained for nesting, to the extent practical; • Trees containing stick nests and areas where active animal dens or burrows are encountered will be left undisturbed until unoccupied, as determined by a qualified person; • Where vegetation removals are required, some of the vegetative material may be used to create brush piles along the ROW edges to promote wildlife habitat where deemed appropriate; • In-water works and changes in water levels within turtle wintering areas during the turtle wintering season (October 1 to May 1) will be avoided; • Wildlife habitats will generally be avoided, where practical; • Wildlife habitat will be promoted through vegetation control; • Natural vegetation will be retained, where possible; • MTO/MNR specialty seed mixture will be used where restoration seeding or planting is conducted; and • Construction personnel will be educated on the potential for wildlife which may be encountered within the general work areas. Species-specific mitigation measures include: **Moose** • Hydro One will prioritize avoiding sensitive or important moose areas (e.g., traditional hunting grounds, calving areas, late winter cover areas, mineral licks, etc.) when siting new access routes and other ancillary components to minimize moose habitat loss and disturbance; • Avoid, to the extent practical, the construction of temporary (e.g., access road, travel lane) and permanent (tower foundations) structures in wetlands or within 30 m setback from a wetland. If construction cannot avoid wetlands and 30 m setback, MNR will be notified as soon as possible prior to work starting. Work will not be conducted unless approval is obtained from the appropriate regulatory agencies;	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Under non-frozen conditions and where regulatory approvals allow, measures will be installed to limit effects to waterbodies and wetlands, if warranted and surface conditions require; • Proposed locations of temporary construction camps and temporary laydown areas will be field verified to avoid wetlands, to the extent practical. Where possible, work activities will be scheduled in wet areas during frozen conditions; • Project components will be sited to provide a 120 m avoidance buffer of upland area to minimize impacts to aquatic feeding areas where possible. In areas where the buffer cannot be maintained, vegetation removal will be completed between December and March when moose are less likely to be using the aquatic feeding areas; and • Should spirit moose be encountered during construction, work will stop in the area until the animal has left of its own accord, and Indigenous communities will be contacted regarding the sighting. **Bald eagle and osprey** • Tree clearing activities will be managed, to the extent possible, so that removal will occur outside of the bald eagle critical breeding period (March 1 to August 31), or until fledglings have left the nest; • Surveys will be conducted at identified active nest sites of known bald eagle (or other raptor) occurrence records; • Moderate to high impact operations will be avoided (including helicopter flights, drilling, blasting, and implosion splicing), to the extent practical, within 400 m of an active bald eagle (or other raptor) nest during the critical breeding period (March 1 to August 31), or until fledglings have left the nest. • If these activities cannot be avoided within the 400 m buffer or until fledglings have left the nest, Hydro One will engage with MNR to discuss if additional mitigation measures are required. If removal of a bald eagle (or other raptor) nest is required, Hydro One will engage with the MNR to acquire all appropriate permits for this work; and • Nest platforms will be installed to replace or enhance habitat during reclamation if a tree with an existing nest is cut down. **Bank swallow** • If a bank swallow colony is identified, a 50 m setback will be applied during the migratory bird nesting period (April 15 to August 31), or until fledglings have left the nest; • Where stockpiling of aggregate materials is required, implement MNR best management practices for protection of bank swallow habitat (MNR, 2017). • Avoid vegetation removal within confirmed bank swallow habitat during the migratory bird nesting period (April 15 to August 31). If vegetation removal or	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		other activities are required during this period, engage with ECCC to acquire permits for this work; and • Surveys at identified active nest sites of known bank swallow colony occurrence records. **Eastern whip-poor-will** • If an eastern whip-poor-will nest is identified, a 500 m buffer will be applied during the migratory bird nesting period (April 15 to August 31), or until fledglings have left the nest; • Vegetation removal and/or grubbing will be avoided within confirmed eastern whip-poor-will habitat during the migratory bird nesting period (April 15 to August 31), or until fledglings have left the nest. If vegetation removal or other activities are required during this period, engage with the ECCC to acquire permits for this work; • Moderate to high impact operations (including helicopter flights, drilling, blasting and implosion splicing) will be avoided, to the extent practical, within 500 m of confirmed eastern whip-poor-will habitat during the migratory bird nesting period (April 15 to August 31), or until fledglings have left the nest; and • Surveys at known eastern whip-poor-will occurrence records. **Reptiles and amphibians** • Install temporary reptile and amphibian exclusion fencing where practical and as appropriate at a distance of 30 m around wetlands with high potential as habitat for reptiles and amphibians prior to emergence from hibernation in areas of active construction. These high potential wetland habitats will be included in the EMS mapping and the associated mitigation measures will be followed. In areas with extensive amounts of high potential wetland habitat, exclusion fencing will consider eco-passages in order to maintain habitat connectivity. Design and installation of exclusion fencing will follow the principles and techniques described online at https://www.ontario.ca/page/reptile-and-amphibian-exclusion-fencing; and • To address work in wetlands during the winter period and the risk to overwintering turtles, exclusion fencing to prevent turtles from entering overwintering areas will be implemented where practical and as appropriate. **Bats** • No tree removal or other construction activities will be completed within 200 m of hibernacula during the non-active period (September 1 to April 30); • Avoid clearing maternity roost habitat during the bat maternity roosting period (May 1 to August 31). If potential maternity roost habitat is to be removed during the roosting period, it will be subject to SCA registration requirements and site-specific mitigation measures that would be developed in consultation with the	

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		MECP SAR Branch. Hydro One will work with the MECP SAR Branch to acquire all appropriate permits for this work. If significant changes to the construction schedule are experienced, Hydro One will engage with the MECP SAR Branch to understand any potential authorization requirements under the SCA; and • Removals will be conducted within the 200 to 500 m distance from hibernation habitat outside of the maternity season for bats (May 1 – August 31) providing noise and vibration created at the site is restricted to that associated with logging (e.g., chain saw, skidder, or mechanical harvesting equipment).	
Natural environment resources – natural heritage features: Invasive species	**Construction:** Construction activities have the potential to inadvertently spread invasive species.	Refer to mitigation related to vegetation removal under surface water resources. Additional mitigation measures to be implemented include: • Educating construction staff on the identification of invasive species and the importance of avoiding their spread to new areas; • Utilizing appropriate plant species during construction restoration; • Taking care to avoid spreading invasive species (especially invasive plant species) that occur in or adjacent to work areas; • Abiding by the *Invasive Species Act* regulations; • Following proper handling, containment, and disposal procedures for invasive plant material, where required; • Inspecting and cleaning equipment and vehicles as necessary to reduce potential for spreading invasive species propagules, in accordance with the Clean Equipment Protocol from Industry (2013); and • Tracking special treatment areas (e.g., large established populations of invasive species within the ROW) for consideration when planning future maintenance works.	With the effective implementation of mitigation measures, net effects associated with invasive species are expected to be minimized.
Indigenous lands and interests	**All phases:** Potential to affect Indigenous community interests and lands.	The following consultation/mitigation measures are planned to address these potential effects: • Mitigation measures for identified Indigenous community Values will be discussed and agreed upon between the respective Partner First Nations and Hydro One; • Partner First Nations have expressed interest in being involved with future environmental field surveys. Hydro One and its consulting archaeologist and biologist will work with interested communities to include Indigenous representatives in environmental field surveys; • Partner First Nations will be provided opportunities to review the findings of archaeological field surveys and AA reports; • Partner First Nations will be provided the opportunity to review the draft ESR prior to public release to incorporate feedback on the report; and • Discovery of undocumented archaeological resources and/or human remains will follow the provisions of the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act*;	Indigenous communities will be consulted throughout the life of the Project to mitigate adverse net effects to the communities' interests. Through engagement and consultation, net effects are expected to be minimized.

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
		• Indigenous communities involved in the Project and/or location will be immediately contacted in the event such remains are Indigenous in origin.	
Recreational resources	**Construction and maintenance:** Potential for temporary disturbance to tourism and enjoyment of recreational resources (e.g., trails, etc.).	The following mitigation is planned to address these potential effects: • Advanced notice will be provided to nearby residences, landowners, trapline owners and commercial operations, outlining the location of entry/exit points for the construction site as well as the schedule for construction work or construction related traffic in those areas. Clear and temporary signage will be created and installed to reflect this information; • Hydro One will engage with remote tourism operators and/or guides to coordinate notification schedules for construction and maintenance activities; • Disturbance to existing recreational resources will be avoided, to the extent practical. This may include timing work to avoid seasons of heavier use; and • Safety precautions will be utilized throughout the Project area to protect the public such as anti-climbing devices and appropriate signage, where necessary.	With the effective implementation of mitigation measures, net effects are expected to be minimized.
Visual and aesthetic resources	**All phases:** Potential visual impacts to sensitive receptors with views of the Project.	During selection of transmission structure locations in detailed design, subject to other constraints and design factors, consideration will be given to the following visual/aesthetic factors: • Proximity to nearby sensitive receptors; • Existing visual screening (e.g., vegetation); and • Existing infrastructure and other landscape characteristics.	Construction of the new transmission structures will result in a visual change to the landscape. The Project will parallel existing infrastructure corridors (e.g., Highway 101, existing transmission line) to the extent practical, which will reduce the net visual change for much of the Project's length. With the effective implementation of mitigation measures, including consultation with local municipalities and landowners, net effects to visual and aesthetic resources are expected to be minimized.
Technical considerations: Infrastructure crossings	**All phases:** Permanent overhead crossings of Highways 101 and 129, railway lines, existing transmission line; running parallel to Highways 101 and 129 as well as the	Refer to mitigation for effects to transportation under the land use and communities section. Additional mitigation measures include: • Where the new transmission line crosses Highway 101 and 129, setback distances provided by MTO will be respected and adhered to;	With the effective implementation of mitigation measures, no net effects are predicted as a result of

Environmental concern	Project phase and potential effects	Mitigation measures	Net effects
	existing transmission line for a portion of the Project.	• Work within MTO's highway ROW or permit control area will require an Encroachment Permit and/or Land Use Permit as well as consultation with MTO during detailed design; • Hydro One's construction contractor will obtain all necessary Encroachment Permits and Land Use Permits from MTO before the start of construction; • To facilitate the construction of the aerial crossings associated with the railway lines, temporary flagging operations may be required; and • Disturbed areas will be restored to as close as possible to pre-disturbed state following the completion of construction.	infrastructure crossings.

7.11. Cumulative effects assessment

The CEA for the Project has been completed in accordance with the Class EA for TF (Hydro One, 2024). The following requirements are identified in the Class EA for TF: "The assessment will include the proposed undertaking and any other proposed undertakings in the immediate Project area where documentation is available (e.g., other EAs)."

For this Project, the CEA involved the consideration of Project effects combined with effects from other proposed undertakings in the LSA (500 m from the centreline of the preferred route) where documentation was publicly available. To extend a CEA beyond the immediate Project area (i.e., to assess trajectories of change over time on a broader regional basis) is outside the scope of the Class EA and Hydro One's ability to influence, control, or reasonably predict.

7.11.1. Identification and assessment of cumulative effects

Project-specific CEAs must determine whether the Project under review is incrementally responsible for adversely affecting a given element (Hegmann et al., 1999). If an environmental or socio-economic element evaluated in the effects assessment does not have any predicted net effects, then no further analysis of that element is required in the CEA. Therefore, the CEA is limited to elements on which the Project is predicted to have net effects that could act cumulatively with net effects from other projects or activities in the LSA.

No potential effects or net effects were identified for the following environmental and socio-economic elements as described in **Section 7.10**; therefore, these elements were not carried forward in the CEA:

- Archaeological resources;
- BHRs and CHLs;
- ANSIs;
- IBAs; and
- Significant woodlands.

The depth of analysis of potential cumulative effects depends upon the relative contribution of each project or activity to the predicted cumulative effects. The Project's contribution to potential cumulative effects depends on various factors, including the source of the disturbance, the resilience of the receiving environment, and how disturbances interact in time and space. The level of detail provided in the CEA reflects:

- The extent to which a cumulative effect on an environmental or socio-economic element is probable;
- The likely scale or magnitude of effect; and
- The extent to which these effects can be accurately and reasonably described relative to the receiving environment.

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

7.11.2. Regional and historic cumulative effects to Aboriginal treaties and Indigenous rights

Hydro One recognizes and respects that Indigenous communities have longstanding relationships with their lands and waters, grounded in their rights, cultures, and responsibilities, and that these connections continue today. The legacies of colonial settlement, including land conversion and development, have altered landscapes and contributed to ongoing changes affecting Indigenous communities' ability to access, use, and steward their lands and resources in the exercise of their rights and traditional practices. Hydro One acknowledges the importance of these lands to Indigenous Peoples and is mindful of this broader historical context and ongoing impacts. In this context, Hydro One is committed to engaging with First Nation Partners in a meaningful, transparent, and respectful manner, with the goal of understanding community interests, concerns, and knowledge, and incorporating this input into Project planning and decision making where feasible.

Hydro One's role is to deliver essential electrical infrastructure in alignment with regional planning assessments and direction provided by the IESO. For this Project, the need for

new transmission infrastructure has been identified through the IESO's regional planning framework and demand forecasts. Formal direction has been provided to Hydro One to proceed with planning, and ultimately the construction and operation, of the required infrastructure. In addition, the OEB, through Order in Council (1554/2024), amended Hydro One's transmission licence to include the development and construction of the Project. As such, Hydro One is undertaking this work in response to direction from the IESO and the OEB.

Throughout the Project, Hydro One has undertaken Indigenous engagement activities consistent with DTC regulatory requirements and its corporate commitments. This has included providing timely and accessible information about the Project, inviting input at key stages, and offering opportunities for communities to identify potential impacts on the exercise of rights, interests, and the use of lands and resources. Where shared, IK and Traditional Knowledge have been respectfully considered alongside technical and environmental information to inform Project planning, assessment of potential effects, and the development of mitigation measures. Hydro One has also provided capacity support to participating Indigenous communities, where appropriate, to facilitate their review of Project materials and participation in the engagement process.

In keeping with regulatory requirements, Hydro One completed a CEA for the Project. This process included consideration of the Project's potential effects alongside those of other existing and proposed activities within the surrounding area, based on publicly available information, to better understand cumulative effects.

7.11.3. Project inclusion list

This CEA includes "certain" and "reasonably foreseeable" activities and developments identified within the LSA as of April 7, 2026. Focusing on activities that are either certain or reasonably foreseeable is consistent with the guidance in the following documents:

- Technical Guidance for Assessing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act*, 2012 (Canadian Environmental Assessment Agency, 2018); and
- The Cumulative Effects Assessment Practitioner's Guide (Hegmann et al., 1999).

An activity/development was considered certain if it will proceed, or there is a high probability it will proceed (i.e., it is either under construction or has been approved). Reasonably foreseeable activities/developments include those in the process of obtaining approval and permits, or where the proponent has publicly disclosed its intention to seek the necessary approvals to proceed.

The following sources were reviewed to identify projects or activities that could have cumulative interactions with the Project:

- NRCan Major Projects (NRCan, 2026);
- Canadian Impact Assessment Registry (Impact Assessment Agency of Canada [IAAC], 2026);
- Infrastructure Canada Housing and Infrastructure Project Map (Infrastructure Canada, 2026);
- Environmental Registry of Ontario (MECP, 2026c);
- EA Projects by Category, list of approved individual EAs by industry sector (Government of Ontario, 2026a);
- Access Environment – Environmental Approvals and Registrations Interactive Map (Government of Ontario, 2026b);
- Ontario's Infrastructure Plan Interactive Map (Government of Ontario, 2026c);
- IO Projects (IO, 2026);
- Ontario's Highways Program Interactive Map (MTO, 2026);
- Hydro One Major Projects (Hydro One, 2026);
- McDougall Energy (McDougall Energy, n.d.);
- Superior Propane (Superior Propane, n.d.);
- MRCA (MRCA, n.d.); and
- City of Timmins – Capital Works (City of Timmins, n.d.).

Some reasonably foreseeable developments are expected to have been completed prior to, or are scheduled to commence after, Project construction. Where construction schedules for reasonably foreseeable developments were not known, it was conservatively assumed that construction schedules are concurrent and overlap with construction activities required for this Project.

Table 7-2 provides an overview of known projects that overlap with the LSA for the preferred route, which have been considered in this CEA. Overlapping projects were categorized into the following three tiers (in decreasing order of information available), as summarized in **Table 7-2**:

1. Projects with completed and publicly available IAs or EAs;
2. Known current and future Hydro One projects where the EA (including selection of a preferred alternative) is not yet completed but where, as owners of transmission line infrastructure, Hydro One has a reasonable understanding of what future potential effects may be; and
3. Other future projects where an EA or planning study has not yet been initiated, completed, or is otherwise not publicly available. In these instances, there is insufficient information to meaningfully assess potential interactions with the Project. It is noted that for these projects, this Class EA and CEA will be available for consideration by the respective proponent, including the potential to assess cumulative effects of the Project combined with those future projects.

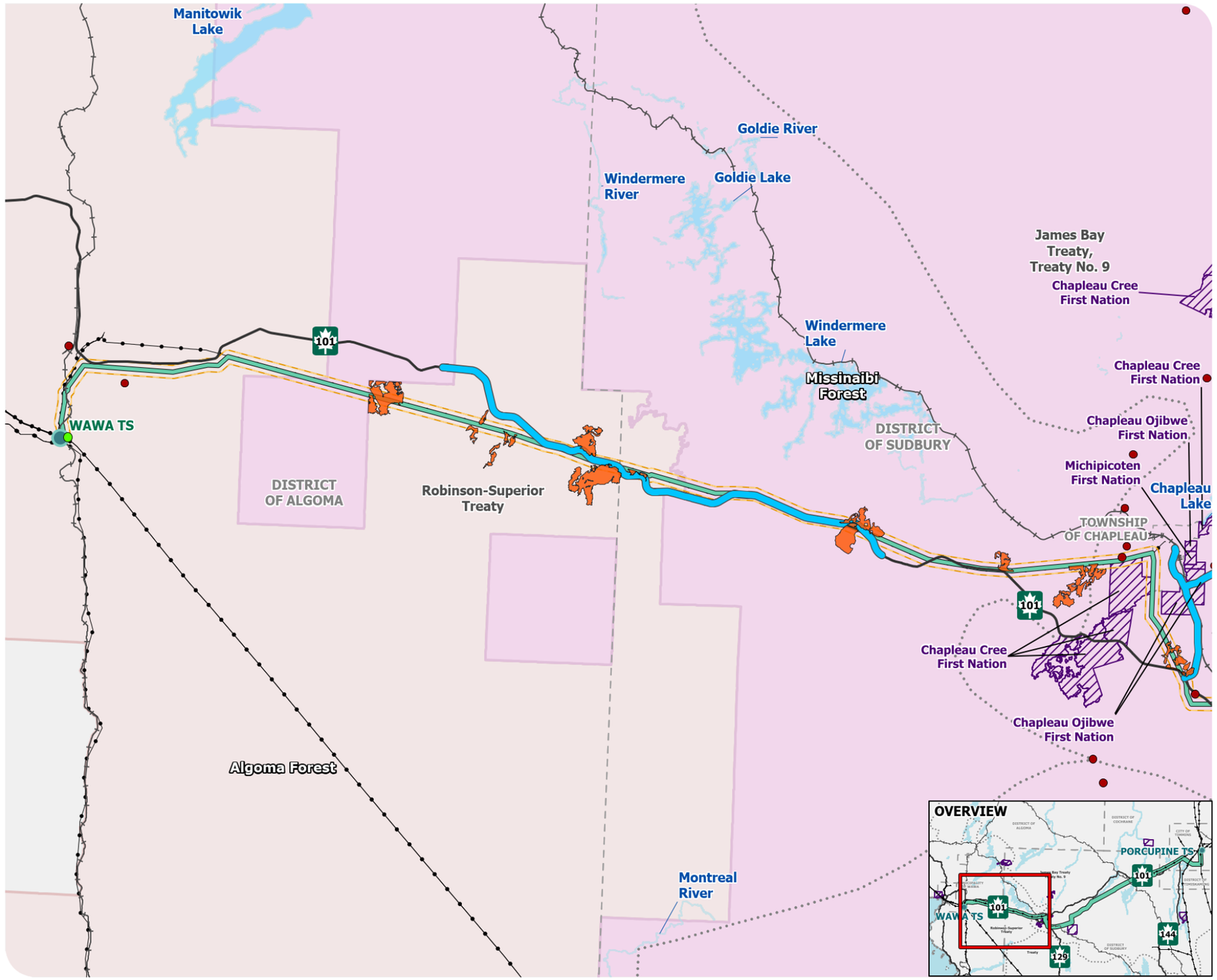
Table 7-2: Projects included in the cumulative effects assessment

Project name	Proponent	Interaction with the Project
Tier 1 projects: Effects assessment documentation publicly available		
No projects identified.		
Tier 2 projects: Hydro One planned future undertakings with owner-predicted high-level effect knowledge		
Porcupine TS component replacement	Hydro One	Replacement of the Porcupine TS static volt-ampere reactive compensator (SVC) with a static synchronous compensator (STATCOM) to restore dynamic reactive power support to the 230 kV transmission system.
Porcupine TS upgrades for Crawford Mine	Hydro One	Canada Nickel Company is proposing a new 230 kV substation, Crawford Mine Customer TS, approximately 38 km north of Timmins to supply their Crawford mining site. The new substation will connect to Hydro One's Porcupine TS through a 37.5 km, 230 kV circuit. To accommodate a

Project name	Proponent	Interaction with the Project
		connection point for this new circuit at the Porcupine TS 230 kV switchyard, Hydro One will install a new 230 kV breaker into the existing 230 kV ring bus.
Wawa TS component replacement	Hydro One	The existing autotransformers, oil circuit breakers, disconnect switches, protection and control, station service, and other ancillary facilities are at their end of life and require replacement to maintain operability and reliability at the station.
Tier 3 projects: Future projects in area where assessment of effects are not yet known		
Mineral exploration permit (MECP, 2026b)	Moon Energy Corporation	An Exploration Permit was issued by the Director of Exploration for a site near the intersection of Star Lake Road and Highway 101 in the District of Cochrane, within the LSA of the preferred route.
Mineral exploration permit (MECP, 2026b)	Pelangio Exploration Inc.	An Exploration Permit was issued by the Director of Exploration for a site near Akweskwa Lake in the District of Sudbury, within the LSA of the preferred route.
Mineral exploration permit (MECP, 2026b)	Mr. Darren Blaney	An Exploration Permit was issued by the Director of Exploration for a site off of Price Main Road in the District of Cochrane, within the LSA of the preferred route.
MTO Highway 101 (North, East) rehabilitation and resurfacing (MTO, 2026)	MTO	Road rehabilitation and resurfacing is proposed along Highway 101 in the District of Algoma and the District of Sudbury, within the LSA of the preferred route.
MTO Highway 101 (North, East) road rehabilitation and resurfacing (MTO, 2026)	MTO	Road rehabilitation and resurfacing is proposed along Highway 101 in the District of Cochrane, within the LSA of the preferred route.

Project name	Proponent	Interaction with the Project
MTO Highway 101 and 129 culvert replacement and resurfacing (MTO, 2026)	MTO	Culvert replacement and resurfacing is proposed on Highway 101 in the District of Sudbury, within the LSA of the preferred route.
Timmins West Gold Mine (Pan American Silver, n.d.)	Pan American Silver	The Timmins West Gold Mine intersects the LSA of the preferred route within the District of Cochrane.
City of Timmins bypass (City of Timmins, n.d.)	City of Timmins	The City of Timmins is proposing the construction of a northern and southern bypass road to support critical mineral projects. The City of Timmins is set to conduct a feasibility study with no defined study area as of June 5, 2026.

Figure 7-1A: Cumulative effects assessment – Segment A



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CUMULATIVE EFFECTS ASSESSMENT: SEGMENT A
FIGURE 7-1A

- Existing Transformer Station (TS)
- Preferred Route
- Local Study Area (500 m on either side of the route centreline)

Forestry Management Unit
- Algoma Forest
- Missinaibi Forest

Tier 2: Hydro One Planned Undertakings
- AR 30181 - Wawa TS Component Replacement

Tier 3: Future Projets
- MTO Highway 101 (North, East) Road Rehabilitation and Resurfacing

Resource Sector Activities
- Active Aggregate Sites
- Harvest Planning Areas

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:282,000

0 3.25 6.5 13 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

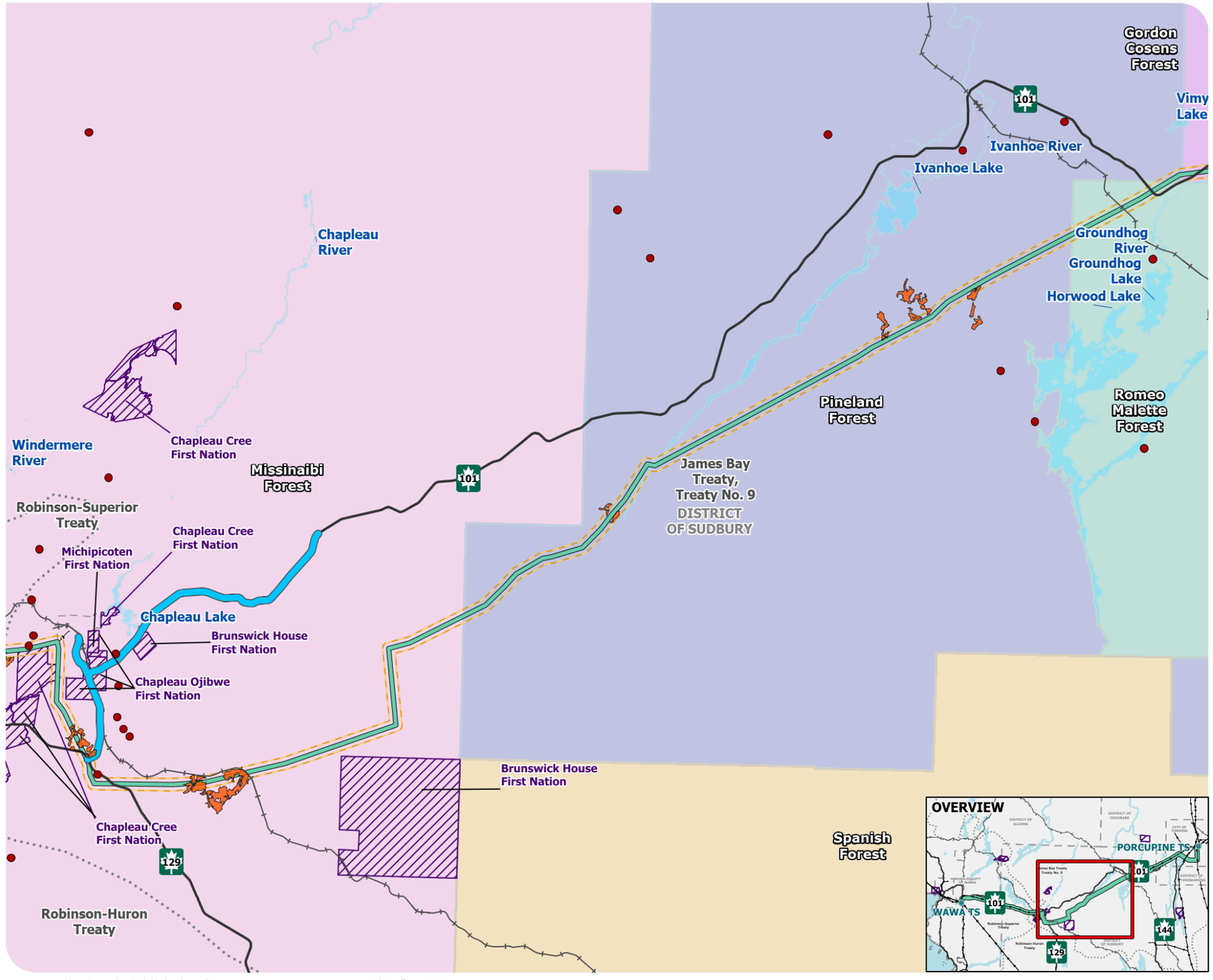
Project Data: v5.1

MAP CREATED BY: LMM / DDR/ RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter7.aprx: LAYOUT: 251043_ESR21_CH07_CumulativeEffectsAssessment

Figure 7-1B: Cumulative effects assessment – Segment B



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CUMULATIVE EFFECTS ASSESSMENT: SEGMENT B
FIGURE 7-1B

- Existing Transformer Station (TS)
- Preferred Route
- Local Study Area (500 m on either side of the route centreline)

Forestry Management Unit
- Gordon Cosens Forest
- Missinaibi Forest
- Pineland Forest
- Romeo Malette Forest
- Spanish Forest

Tier 3: Future Projets
- MTO Highway 101 (North, East) Road Rehabilitation and Resurfacing

Resource Sector Activities
- Active Aggregate Sites
- Harvest Planning Areas

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Ontario First Nation Treaty Boundary
- Municipal Boundary
- Water Body

SCALE 1:299,000

0 3.5 7 14 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

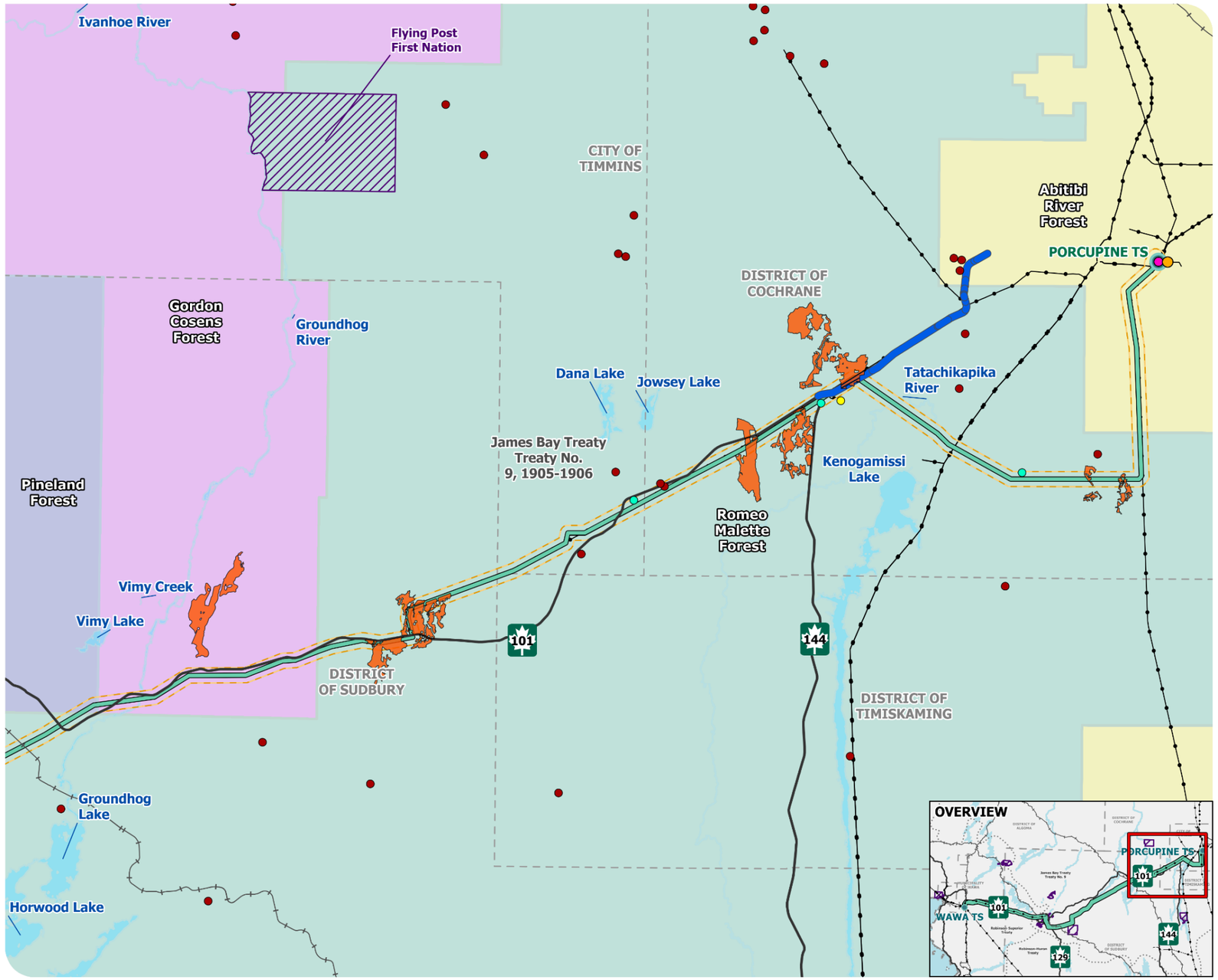
Project Data: v5.1

MAP CREATED BY: LMM / DDR/ RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-10-08

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter7.aprx; LAYOUT: 251043_ESR21_CH07_CumulativeEffectsAssessment

Figure 7-1C: Cumulative effects assessment – Segment C



WAWA TIMMINS POWER LINE

ENVIRONMENTAL STUDY REPORT

CUMULATIVE EFFECTS ASSESSMENT: SEGMENT C
FIGURE 7-1C

- Existing Transformer Station (TS)
- Preferred Route
- Local Study Area (500 m on either side of the route centreline)

Forestry Management Unit
- Abitibi River Forest
- Gordon Cosens Forest
- Pineland Forest
- Romeo Malette Forest

Tier 2: Hydro One Planned Undertakings
- Porcupine TS Component Replacement
- Porcupine TS Upgrades for Crawford Mine

Tier 3: Future Projects
- MTO Highway 101 and 129 Culvert Replacement and Resurfacing

Resource Sector Activities
- Active Aggregate Sites
- Mineral Exploration Permit
- Timmins West Gold Mine
- Harvest Planning Areas

Base Data
- Existing Transmission Line
- Railway
- Highway
- First Nation Reserve
- Municipal Boundary
- Water Body

SCALE 1:244,000

0 2.75 5.5 11 KM

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, OSG, Hydro One Networks Inc., Dillon Consulting Limited.

Project Data: v5.1

MAP CREATED BY: LMM / DDR/ RR
MAP CHECKED BY: -
MAP PROJECTION: NAD 1983 UTM Zone 17N

PROJECT: 25-1043
STATUS: DRAFT
DATE: 2026-07-09

FILE LOCATION: K:\2025\251043\Product\Client\ESR\ESR_Chapter7.aprx; LAYOUT: 251043_ESR21_CH07_CumulativeEffectsAssessment

7.11.4. Resource sector activities

To account for the nature of the location and context of the Project, resource sector industries have also been included in the CEA. The following sectors were included, as described in the respective sections of the environmental inventory:

- Forestry operations (described in **Section 4.2**).
- Aggregate operations (described in **Section 4.5**); and
- Mining and exploration operations (described in **Section 4.5**).

Known resource sector sites/activities that overlap with the LSA for the preferred route are shown in **Figure 7-1**.

7.11.5. Analysis of cumulative effects

Cumulative effects analysis was completed for the Tier 2 projects listed in **Table 7-3** and the resource sector activities outlined in **Section 7.11.4**. As noted in **Section 7.11.3**, Tier 3 projects were excluded because sufficient information about these projects is not available.

The results of the analysis are summarized in **Table 7-3**. For each project/activity, an overall response of “Yes” or “No” is provided to indicate whether it contributes to cumulative effects on the element in question, followed by a summary of the rationale. Some cases, such as intra-industry effects (e.g., effects of forestry operations on forestry resources), are simply noted as not applicable. The cumulative effects analysis and conclusion columns provide a summary of the findings for the element in question.

The following process was followed to assess cumulative effects:

- Effects assessment tables, plans, Ontario regulations, and other applicable documents were reviewed for each project or industry sector;
- Potential temporary and long-term effects and net effects for each project/sector were identified; and
- The potential for cumulative effects of multiple projects and/or operations overlapping the Project LSA was assessed.

Cumulative effects were analyzed from a “temporary effect” versus “long-term effect” perspective. Temporary effects are primarily related to construction activities associated with the respective infrastructure or short-term and transient effects. Long-term effects represent potential project/sector effects that may extend over the life of the Project and/or operations. It is noted, however, that some long-term effects are related to periodic maintenance activities which will not be persistent throughout the entire lifespan of the Project and/or operations. An example of this is maintenance vehicles tracking mud on local roads, which will only occur when maintenance activities are required in muddy areas.

Table 7-3: Cumulative effects assessment

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Forestry resources: Changes to the area and access of forestry resources	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact active forestry operations.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact active forestry operations.	**Temporary and long-term effects: No** The work proposed at the Wawa TS will be entirely within the existing footprint of the station and is not anticipated to impact active forestry operations.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: Yes** Aggregate operations may interact cumulatively with the Project on forestry operations. However, there are conditions for the establishment of aggregate pits within FMUs, and the main uses of aggregates within FMUs are for forestry road construction and maintenance. Forestry aggregate pits, while exempt from the requirement of an aggregate permit under the *Aggregate Resources Act*, comply with criteria outlined in the corresponding FMPs. FMPs map aggregate permits and aggregate extraction areas within the FMUs to coordinate the activities of these two industries.	**Temporary and long-term effects: Yes** The Project has the potential to interact cumulatively with effects of mining operations on access to forestry resources during Project construction and operations. However, FMPs include provisions for mineral exploration within their respective FMUs, and work is coordinated between the industries (Romeo Malette FMP, 2018).	**Temporary and long-term effects: Yes** Multiple resource sectors have been identified to have potential effects to existing and future forestry operations. However, sector-specific mitigation is used to mitigate these temporary effects.	While several sectors have potential impacts to forestry operations, existing measures are in place to avoid and/or mitigate effects. There are numerous examples across the province of multiple resource extraction sectors operating simultaneously within the same geographical area. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Land use and communities: Business operations	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact active business operations.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact active business operations.	**Temporary and long-term effects: No** The work proposed at the Wawa TS will be entirely within the existing footprint of the station and is not anticipated to impact active business operations.	**Temporary and long-term effects: Yes** Potential for temporary disruption to the function and access of industrial operations during construction and operations through increases in traffic congestion and potential for blocking business driveway access. Forestry operations have potential to act cumulatively with the Project to impact trappers through effects to fur bearing animals, impacting harvests. Additionally, remote tourism businesses may be impacted through nuisance sensory effects and the potential loss of the sense of remoteness due to an increase in human presence and emissions, including noise.	**Temporary effects: Yes** Potential for temporary disruption to the function and access of industrial operations during construction. **Long-term effect: No** Effects to business and industrial operations are expected to be minimal and temporary in nature.	**Temporary effect: Yes** Potential for temporary disruption to the function and access of industrial operations during construction. **Long-term effect: No** Effects to business and industrial operations are expected to be minimal and temporary in nature.	**Temporary and long-term effect: Yes** Multiple projects/ resource sectors have potential for disruption to local businesses that may interact with Project-specific activities. If multiple operations proceed simultaneously, the compounding effect on local operators may result in a negative socio-economic effect. Resource extraction operations have provisions within their plans to coordinate work and mitigate effects to business operations. Hydro One will also coordinate with resource extraction and business operations to mitigate effects.	While multiple sectors have potential impacts to business operations, resource extraction operations are coordinated with business operations. Project-specific mitigation measures, such as a Traffic Control Plan and engagement with business operators, will be completed to mitigate effects. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Land use and communities: Existing and future land use designations and potential future development	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact the land use designation of adjacent lands.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact the land use designation of adjacent lands.	**Temporary and long-term effects: No** The work proposed at the Wawa TS will be entirely within the existing footprint of the station and is not anticipated to impact the land use designation of adjacent lands.	**Temporary effect: Yes** There is potential for forestry operations to require temporary access/use of adjacent lands for timber harvest and forestry activities. FMPs include mapping of future harvest areas and work can be coordinated between forestry companies and Hydro One to help mitigate effects on land use and potential future development. **Long-term effect: Yes** Existing forestry operations have the potential to act cumulatively with the Project to limit future land use designations and potential for future development within the ROW and immediately adjacent lands. However, existing forestry operations	**Temporary effect: No** It is not anticipated that the Project will interact with existing aggregate operations to temporarily impact land use designations or access. Aggregate pits, quarries, and extraction areas represent existing land uses; it is not anticipated that the Project will require changes to land designations nor the future potential for development within the LSA. **Long-term effect: Yes** Existing aggregate operations have the potential to act cumulatively with the Project to limit future land use designations and potential for future development within the ROW and immediately adjacent lands. However, existing aggregate operations represent an appropriate land	**Temporary effect: No** It is not anticipated that the Project will interact with existing mining operations to temporarily impact land use designations or access. **Long-term effect: Yes** The establishment of mining operations may result in limitations for future land use designations and development. Existing mining operations represent an appropriate land use for the context while also implementing specific land use restrictions within mining exploration and/or permitted areas.	**Temporary effects: Yes** The Project has potential to interact with temporary effects of forestry on existing and future land use designations and potential future development. These effects can be addressed through Project and forestry sector-specific mitigation. **Long-term effect: Yes** Several resource sectors have the potential to interact with the Project's effects on long-term land uses. However, the resource sector operations are considered an appropriate land use for the context and include land use restrictions to mitigate impacts to surrounding land uses.	While several resource sectors have identified potential impacts to land uses and potential future development, the impact is made known ahead of the development taking place. There are numerous examples across the province of land development occurring around existing resource extraction and transmission corridors. Hydro One will continue to engage with municipalities and resource industry operators to mitigate effects to land use and potential development. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
				represent appropriate land uses for the context. FMPs include land use mapping to support mitigation of forestry's effects on land use.	use for the context and lands are specifically designated for this use.			
Land use and communities: Transportation	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact local roads or transportation routes during construction.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact local roads or transportation routes during construction.	**Temporary and long-term effects: No** The work proposed at the Wawa TS will be entirely within the existing footprint of the station and is not anticipated to impact local roads or transportation routes during construction.	**Temporary effect: Yes** Potential for increased traffic volume and intermittent delays on local roads used by commercial operations. Access roads built for the Project may also relieve traffic effects on the main corridors in the PSA. **Long-term effect: No** Forestry cycles are rotational; once harvesting and silviculture activities are complete in one area, associated traffic impacts are anticipated to subside.	**Temporary effect: Yes** Potential for increased traffic volume and intermittent delays on local roads used by commercial operations. **Long-term effect: No** The continuation of existing aggregate operations will not represent a net increase of traffic within LSA.	**Temporary effect: Yes** Potential for increased traffic volume and intermittent delays on local roads used by commercial operations. **Long-term effect: No** The continuation of existing mining operations is not expected to represent a net increase of traffic within LSA.	**Temporary effect: Yes** Multiple sectors have potential for disruption to local traffic volumes as a result of Project-specific activities. If multiple operations proceed simultaneously, the compounding effect on local traffic volumes may result in a negative socio-economic effect that will be temporary. **Long-term effect: No** Not applicable.	Potential impacts on local roadways would be temporary in nature. Road closures or disruptions to traffic require approvals from local municipalities or MTO prior to construction. Local municipalities and MTO have procedures in place to coordinate multi-project impacts and mitigate road network disruptions. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Land use and communities: Mud and construction debris	**Temporary effect: Yes** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone. **Long-term effect: No** No mud or construction debris is expected to be created after the TS refurbishment or during the operation of the TS.	**Temporary effect: Yes** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone. **Long term-effect: No** No mud or construction debris is expected to be created after the construction works at Porcupine TS.	**Temporary effect: Yes** Potential for tracking of mud and migration of construction debris to areas outside of the construction zone. **Long-term effect: No** No mud or construction debris is expected to be created after the replacement works at Wawa TS.	**Temporary effect: Yes** FMPs within the Project LSA do not address mud and debris as a concern for land use and communities, though it is reasonable to assume forestry operations may track mud onto roadways. **Long-term effect: No** No long-term net increase of mud or construction debris is anticipated due to the continuation of forestry operations.	**Temporary and long-term effect: No** No temporary or long-term net increases of mud or construction debris are anticipated due to the continuation of aggregate operations.	**Temporary and long-term effects: No** No temporary or long-term net increases of mud or construction debris are anticipated due to the continuation of mining/ exploration operations.	**Temporary effect: Yes** One project and one resource sector have been identified as having the potential for temporary effects from construction activities. Effects can be mitigated through project-specific mitigation measures. **Long-term effect: No** Not applicable.	Potential impacts are temporary in nature and can be mitigated through project-specific measures. No additional mitigation measures are proposed.
Land use and communities: EMF	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	No cumulative effects are predicted.
Land use and communities: Noise and vibration	**Temporary effect: Yes** Nearby residences and land users may experience noise and vibration associated with construction activity. **Long-term effect: No**	**Temporary effect: Yes** Nearby residences and land users may experience noise and vibration associated with construction activity. **Long-term effect: No**	**Temporary effect: Yes** Nearby residences and land users may experience noise and vibration associated with replacement activities.	**Temporary effect: Yes** The Project may act cumulatively with active harvesting operations to cause a temporary net increase in noise and vibration. Forestry operations must comply with	**Temporary effect: Yes** The Project may act cumulatively with active aggregate operations to have a temporary net increase in noise and vibration within the Project LSA.	**Temporary effect: Yes** The Project may act cumulatively with active mining and/or exploration activities to have a temporary net increase in noise and vibration	**Temporary effect: Yes** One project and several resource sectors have been identified as potentially resulting in short-term noise and/or vibration effects. Should these activities and the	Noise and vibration during construction are temporary in nature. Specific operations are required to comply with site-specific ECAs, licences, authorizations, and/or noise regulations. No additional mitigation

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
	No net increase in noise or vibration emissions is anticipated once the TS is in operation.	No net increase in noise or vibration emissions is anticipated once construction works are completed.	**Long-term effect: No** No net increase in noise or vibration emissions is anticipated once replacement works are completed.	the applicable emissions regulations, which include noise and vibration. **Long-term effect: No** No long-term net increase of noise or vibration is anticipated due to existing forestry operations. Noise and vibration effects from forestry operations are anticipated to be short-term and transitory.	**Long-term effect: No** No long-term increase of noise or vibration is anticipated due to existing aggregate operations. Aggregate operations must comply with the applicable municipal, provincial and federal emissions regulations, which include noise and vibration.	within the Project LSA. **Long-term effect: No** No long-term increase of noise or vibration is anticipated due to existing mining and/or exploration activities. Mining operations must comply with the applicable municipal, provincial and federal emissions regulations, which include noise and vibration.	Project proceed at the same time near one another, the effects could be compounded. **Long-term effect: No** Not applicable.	measures are proposed.
Mineral resources	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact mineral resource operations.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to impact mineral resource operations.	**Temporary and long-term effects: No** The work proposed at the Wawa TS will be entirely within the existing footprint of the station and is not anticipated to impact mineral resource operations.	**Temporary effect: No** Forestry operations are not predicted to have temporary effects on mineral resource extraction. **Long-term effect: Yes** Forestry operations may limit the availability of land for mineral resource extraction; however, both sectors have historically operated within the regional	**Temporary and long-term effects: No** Not applicable.	**Temporary and long-term effects: No** Not applicable.	**Temporary effect: No** Not applicable. **Long-term effect: Yes** Forestry has been identified as having the potential for long-term impacts on mineral resource extraction within the LSA. However, these effects can be addressed by sector-specific mitigation.	Existing sector-specific mitigation measures are in place to avoid and/or mitigate effects of forestry operations on mineral and aggregate extraction. There are numerous examples across the province of multiple resource extraction sectors operating simultaneously within the same geographical area. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
				context. FMPs covering the LSA include provisions to coordinate forestry operations with mineral and aggregate extraction. Additionally, forestry roads can benefit aggregate and mining permit holders by providing access to remote areas.				
Natural environment resources – physical environment: Spills	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids during construction and/or periodic maintenance activities.	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids during construction and/or periodic maintenance activities.	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids during construction and/or periodic maintenance activities.	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids.	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids.	**Temporary and long-term effects: Yes** Potential inadvertent release of deleterious substances including oil, gasoline, or other liquids.	**Temporary and long-term effects: Yes** Multiple projects/ resource sectors have potential for inadvertent spills during construction and operations phases. However, sector-specific mitigation and spill response can mitigate these risks.	Project and sector-specific mitigation plans and spill response plans can manage these risks. No additional mitigation measures are proposed.
Natural environment resources – physical environment: Waste generation	**Temporary effect: Yes** Solid and/or liquid waste would be generated during construction.	**Temporary effect: Yes** Solid and/or liquid waste would be generated during construction.	**Temporary effect: Yes** Solid and/or liquid waste would be generated during replacement activities.	**Temporary effect: Yes** Forestry operations are anticipated to produce waste products; however, the FMUs overlapping the LSA	**Temporary and long-term effect: No** Nonet increase in waste generation is anticipated from continued aggregate operations.	**Temporary and long-term effects: No** No net increase in waste generation is anticipated from continued	**Temporary effect: Yes** One project and one resource sector have the potential to generate increased waste materials which may have	While one project and one resource sector have been identified to have the potential to generate increased waste materials, project and sector-- specific mitigation

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
	Long-term effect: No Not applicable.	**Long-term effect: No** Not applicable.	**Long-term effect: No** Not applicable.	include provisions to address waste products. **Long-term effect: No** No long-term net increase in waste generation is anticipated due to operations.		aggregate operations.	effects on local communities if not handled properly. Project and sector-specific mitigation measures can be implemented to mitigate concerns. **Long-term effect: No** Not applicable.	measures can be implemented to mitigate concerns. No additional mitigation measures are proposed.
Natural environment resources – physical environment: Excess materials management	**Temporary effect: Yes** Excess materials may be generated including soils, concrete, manufactured wood waste, packing materials and scrap metal. Excess soil volumes are anticipated to be 835 cubic metres. Planning documentation will be prepared in accordance with the requirements of O. Reg. 406/19 and the Rules for Soil Management and Excess Soil Standards published by the MECP (2025).	**Temporary effect: Yes** Excess materials may be generated including soils, concrete, manufactured wood waste, packing materials and scrap metal. If required, planning documentation will be prepared in accordance with the requirements of O. Reg. 406/19 and the Rules for Soil Management and Excess Soil Standards published by the MECP (2025). **Long-term effect: No** Excess materials are not anticipated	**Temporary effect: Yes** Excess materials may be generated during component replacement activities. If required, planning documentation will be prepared in accordance with the requirements of O. Reg. 406/19 and the Rules for Soil Management and Excess Soil Standards published by the MECP (2025). **Long-term effect: No** Excess materials are not anticipated to be generated during TS operation.	**Temporary and long-term effects: No** Existing forestry resource operations are anticipated to address excess material management through sector and/or site-specific measures. Resource operations are expected to comply with applicable regulations regarding excess materials management.	**Temporary and long-term effects: No** Existing aggregate resource operations are anticipated to address excess material management through sector and/or site-specific measures. Resource operations are expected to comply with applicable regulations regarding excess materials management.	**Temporary and long-term effects: No** Existing mineral resource operations are anticipated to address excess material management through sector and/or site-specific measures. Resource operations are expected to comply with applicable regulations regarding excess materials management.	**Temporary effect: Yes** One project has been identified to have the potential to generate excess materials during construction which may have effects on local communities if not handled properly. Project-specific mitigation measures can be implemented to mitigate concerns. **Long-term effect: No** Not applicable.	One project has been identified to have the potential to generate excess materials during construction; excess soils will be managed in accordance with O. Reg. 406/19. Effects are anticipated to be short-term, and project-specific mitigation measures can be implemented to mitigate. No additional mitigation measures are proposed.

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	Long-term effect: No Excess materials are not anticipated to be generated during the TS operation.	to be generated during TS operation.						
Natural environment resources – atmospheric environment: Climate change	**Temporary effect: Yes** Emissions from construction equipment are anticipated. Project-specific mitigation measures were developed to mitigate effects. **Long-term effect: No** Not applicable. Not net increase in greenhouse gas emission is anticipated during operation of the TS.	**Temporary effect: Yes** Emissions from construction equipment are anticipated. Project-specific mitigation measures were developed to mitigate effects. **Long-term effect: No** Not applicable. Not net increase in greenhouse gas emission is anticipated after construction works are complete.	**Temporary effect: Yes** Emissions from construction equipment are anticipated. Project-specific mitigation measures were developed to mitigate effects. **Long-term effect: No** Not applicable. Not net increase in greenhouse gas emission is anticipated during operation of the TS.	**Temporary and long-term effects: Yes** Reasonable to assume forestry operations will include short-term greenhouse gas emissions from gas- or diesel-powered vehicles and equipment. Sector-specific mitigation can be applied and it is expected that forestry operations would comply with applicable emissions regulations.	**Temporary and long-term effects: Yes** Reasonable to assume aggregate operations will include short-term greenhouse gas emissions from gas- or diesel-powered vehicles and equipment. Sector-specific mitigation can be applied and it is expected that aggregate operations would comply with applicable emissions regulations.	**Temporary and long-term effects: Yes** Reasonable to assume aggregate operations will include short-term greenhouse gas emissions from gas- or diesel-powered vehicles and equipment. Sector-specific mitigation can be applied and it is expected that mining and exploration operations would comply with applicable emissions regulations.	**Temporary and long-term effects: Yes** Several activities have been identified as having potential for greenhouse gas emission releases associated with equipment and/or vehicles. When combined, these activities would result in greater climate change impacts than individually.	It is acknowledged that these activities will create emissions both short- and long-term, contributing to climate change. However, the emission sources (individual vehicles) are considered minor in the context of the overlapping areas of the activities. These activities are anticipated to have limited spatial and temporal overlap with the Project. Project mitigation measures are predicted to reduce the Project's contribution to cumulative effects for the potential to contribute to climate change. No additional mitigation measures are proposed.
Natural environment resources – atmospheric	**Temporary effect: Yes** Residential and business properties	**Temporary effect: Yes** Residential and business properties	**Temporary effect: Yes** Residential and business properties	**Temporary effect: Yes** Reasonable to assume site-	**Temporary effect: Yes** Reasonable to assume site specific,	**Temporary effect: Yes** Reasonable to assume site	**Temporary effect: Yes** Several activities have been identified	Potential impacts are temporary and can be mitigated through Project and sector-

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environment: Air quality	and local land users may experience dust, and equipment exhaust associated with construction activities. However, the sources of air emissions are to be removed once construction is complete. **Long-term effect: No** Not applicable, additional dust and/or exhaust is not anticipated during TS operation.	and local land users may experience dust, and equipment exhaust associated with construction activities. However, the sources of air emissions are to be removed once construction is complete. **Long-term effect: No** Not applicable, additional dust and/or exhaust is not anticipated during TS operation.	and local land users may experience dust, and equipment exhaust associated with construction activities. However, the sources of air emissions are to be removed once construction is complete. **Long-term effect: No** Not applicable, additional dust and/or exhaust is not anticipated during TS operation.	specific, short-term increases in dust and particle emission in areas of active timber harvesting activities. **Long-term effect: No** Air quality effects associated with forestry operations are anticipated to be location-specific and temporary in nature.	short-term increases in dust and particle emission in areas of active aggregate extraction. **Long-term effect: No** Air quality effects associated with aggregate operations are anticipated to be location-specific and temporary in nature.	specific, short-term increases in dust and particle emission in areas of active exploration and/or mining operations. **Long-term effect: No** Air quality effects associated with mining operations are anticipated to be location-specific and temporary in nature.	as having potential for increased temporary air quality effects including releases of dust and airborne particulates. Project and sector-specific mitigation can be implemented to mitigate effects. **Long-term effect: No** Not applicable.	specific measures. No additional mitigation measures are proposed.
Natural environment resources – noise and vibration	**Temporary effect: Yes** Nearby residences and land users may experience temporary noise and vibration associated with construction activity. **Long-term effect: No** No net increase in noise emission is anticipated during TS operation.	**Temporary effect: Yes** Nearby residences and land users may experience temporary noise and vibration associated with construction activity. **Long-term effect: No** No net increase in noise emission is anticipated during TS operation.	**Temporary effect: Yes** Nearby residences and land users may experience temporary noise and vibration associated with construction activity. **Long-term effect: No** No net increase in noise emission is anticipated during TS operation.	**Temporary effect: Yes** The Project may act cumulatively with active harvesting forestry operations to have a temporary net increase in noise and vibration within the LSA. Forestry operations must comply with the applicable emissions regulations, which include noise and vibration.	**Temporary effect: Yes** The Project may act cumulatively with active aggregate operations to have a temporary net increase in noise and vibration within the LSA. **Long-term effect: No** No long-term net increase of noise or vibration is anticipated due to existing aggregate	**Temporary effect: Yes** The Project may act cumulatively with active mining and/or exploration activities to have a temporary net increase in noise and vibration within the LSA. **Long-term effect: No** No long-term net increase of noise or vibration is anticipated due to	**Temporary effect: Yes** Several operations have identified short-term noise and vibration effects. Should operations proceed at the same time in close proximity to one another, these effects could be compounded. **Long-term effect: No** Not applicable.	Noise and vibration effects are anticipated to be temporary in nature. Specific operations are required to comply with site-specific ECAs, licences, authorizations, and/or noise regulations. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
				Long-term effect: No No long-term net increase of noise or vibration is anticipated due to existing forestry operations. Forestry operations must comply with the applicable emissions regulations, which include noise and vibration.	operations. Aggregate operations must comply with the applicable emissions regulations, which include noise and vibration.	existing mining and/or exploration activities. Mining operations must comply the applicable emissions regulations, which include noise and vibration.		
Natural environment resources – surface water resources, surface water quantity: Vegetation removals and soil rutting	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to include impacts to vegetation or surface water resources during construction and operation.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to include impacts to vegetation or surface water resources during construction and operations.	**Temporary and long-term effects: No** The work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to include impacts to vegetation or surface water resources during construction and operations.	**Temporary and long-term effects: Yes** Reasonable to assume the removal of timber resources will have potential effects on surface water resources through vegetation removals and soil rutting. It is expected that forestry resource extraction operations will use industry best practices and mitigation measures to reduce or avoid impacts to surface water resources. FMPs within the LSA include	**Temporary and long-term effects: Unknown** Active and operating aggregate pits and quarries are not anticipated to require additional vegetation removals. However, the LSA includes designated aggregate extraction areas where expanded or new operations may be established, requiring vegetation removals.	**Temporary and long-term effects: Yes** The LSA includes numerous mining and exploration leases, permits, and projects. It is assumed the development of new, or expansion of existing mining and/or exploration operations will include vegetation removals and soil rutting with the potential to impact surface water resources. It is expected that mining sector operations will use industry best	**Temporary and long-term effects: Yes** Several activities have been identified as including short and long-term soil rutting and vegetation removal effects.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

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				measures to mitigate impacts to surface water resources through soil and water conservation (Algoma FMP, 2020; Missinaibi FMP, 2021).		practices and mitigation measures to reduce or avoid impacts to surface water resources.		
Natural environment resources – surface water resources, surface water quantity: Access roads	**Temporary and long-term effects: No** Not applicable, no new access roads are anticipated to be required for the project.	**Temporary and long-term effects: No** Not applicable, no new access roads are anticipated to required for the project.	**Temporary and long-term effects: No** Not applicable, no new access roads are anticipated to be required for the project.	**Temporary and long-term effects: Yes** FMPs include Road Use Management Strategies to address how access roads might positively or negatively impact other forest users. Additionally, FMPs include provisions and measures to mitigate impact to surface water resources when installing and maintaining access road watercourse crossings.	**Temporary and long-term effects: Yes** Aggregate operations may require the installation of new access road with the potential for impacts to surface water resources. It is expected that aggregate operations will apply best management practices and mitigation measures to reduce or avoid these impacts.	**Temporary and long-term effects: Yes** New mining and/or exploration operations or expansions of existing operations may require the installation of new access road with the potential for impacts to surface water resources. It is expected that mining and/or exploration operations will apply best management practices and mitigation measures to reduce or avoid these impacts.	**Temporary and long-term effects: Yes** Multiple resource sectors have been identified as having the potential to impact surface water resources through the construction and maintenance of access roads.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

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Natural environment resources – surface water resources; surface water quantity: Construction work within areas regulated by the MRCA	**Temporary and long-term effects: No** The Porcupine TS is not located within an area regulated by the MRCA.	**Temporary and long-term effects: No** The Porcupine TS is not located within an area regulated by the MRCA.	**Temporary and long-term effects: No** The Wawa TS is not located within an area regulated by the MRCA.	**Temporary and long-term effects: Yes** Timber harvesting may increase runoff and have long-term effects on surface water balance in MRCA regulated areas.	**Temporary and long-term effects: No** Not applicable; no aggregate operations have been identified within MRCA regulated areas in the LSA.	**Temporary and long-term effects: No** Not applicable; no mining operations have been identified within MRCA regulated areas in the LSA.	**Temporary and long-term effects: Yes** Forestry operations may have temporary and long-term effects on surface water balance in MRCA regulated areas. Project and sector-specific mitigation measures can be implemented to manage erosion and sedimentation issues.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.
Natural environment resources – surface water resources; surface water quality: Erosion and sedimentation	**Temporary effect: Yes** Project construction will include excavation and earthworks which have the potential for erosion and sediment effects on surface water resources. **Long-term effect: No** Not applicable. No erosion and sedimentation effects are anticipated on surface water features during TS operation.	**Temporary effect: Yes** Project construction will include excavation and earthworks which have the potential for erosion and sediment effects on surface water resources. **Long-term effect: No** Not applicable. No erosion and sedimentation effects are anticipated on surface water features during TS operation.	**Temporary effect: Yes** Project construction will include excavation and earthworks which have the potential for erosion and sediment effects on surface water resources. **Long-term effect: No** Not applicable. No erosion and sedimentation effects are anticipated on surface water features during TS operation.	**Temporary and long-term effects: Yes** FMPs within the LSA identify erosion and sedimentation as significant environmental risks associated with forest management activities. The Project may act cumulatively with active harvesting forestry operations to increase the rate of soil erosion, specifically surrounding surface water features.	**Temporary and long-term effects: Yes** Potential for effects to surface water resources through erosion and sedimentation. O. Reg. 244/97 under the *Aggregate Resources Act* includes provisions for the control of erosion.	**Temporary and long-term effects: Yes** Potential for effects to surface water resources through erosion and sedimentation. O. Reg. 240/00 under the *Mining Act* includes provisions for the control of erosion and surface water monitoring.	**Temporary and long-term effects: Yes** Multiple resource sectors have identified potential for erosion and sedimentation. Project and sector-specific mitigation measures can be implemented to manage erosion and sedimentation issues.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

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Natural environment resources – groundwater resources: Groundwater quality and quantity	**Temporary effect: Yes** Earthworks related to the project include the removal of existing equipment, footings, and foundations. Ground disturbance may include the discovery of contaminated soil which has the potential to contribute to groundwater contamination. Disturbance and compaction to soil have the potential to inhibit infiltration. **Long-term effect: No** Not applicable. Potential disturbance of contaminated soils is not expected to have a long-term effect as contaminated oil and/or water discovered during excavation would be dealt with according to applicable	**Temporary effect: Yes** Earthworks related to the project include drainage piping and manhole relocation, construction support for lines entrance structure foundations, and minor grading and yard restoration activities once foundation construction is complete. Ground disturbance may include the discovery of contaminated soil which has the potential to contribute to groundwater contamination. Disturbance and compaction to soil have the potential to inhibit infiltration. **Long-term effect: No** Not applicable. Potential disturbance of contaminated soils is not expected to have a long-term	**Temporary effect: Yes** Earthworks related to the project include drainage works for the two 230 kV auto-transformers. Ground disturbance may include the discovery of contaminated soil which has the potential to contribute to groundwater contamination. Disturbance and compaction to soil have the potential to inhibit infiltration. **Long-term effect: No** Not applicable. Potential disturbance of contaminated soils is not expected to have a long-term effect as contaminated oil and/or water discovered during excavation would be dealt with according to applicable regulations and	**Temporary effect: Yes** FMPs within the LSA note the potential for hydrological impacts, including changes in the rates and/or patterns of surface and shallow groundwater flow through various parts of the forest ecosystem (Romeo Malette FMP, 2018; Algoma FMP, 2020; Missinaibi FMP, 2021). The applicable FMPs generally include mitigation measures to reduce or avoid impacts to groundwater quality. **Long-term effect: No** Impacts to groundwater quality are anticipated to be localized and temporary in nature.	**Temporary effect: Yes** Aggregate resource extraction operations have the potential to temporarily impact groundwater quality through excavation and/or the discovery of contaminated soils and/or water. **Long-term effect: No** O. Reg. 244/97 under the *Aggregate Resources Act* includes provisions regulating the interaction with groundwater in aggregate operations. Potential impacts to groundwater quality are anticipated to be localized and temporary in nature.	**Temporary effect: Yes** Mining and exploration operations have the potential to temporarily impact groundwater quality through excavation and/or the discovery of contaminated soil and/or water. **Long-term effect: No** O. Reg. 240/00 under the *Mining Act* includes provisions regulating the interaction with groundwater in mining operations. Potential impacts to groundwater are anticipated to be localized and temporary in nature.	**Temporary effect: Yes** Multiple activities have been identified as having the potential to temporarily impact groundwater quality/ quantity. Project and sector-specific measures can be implemented to manage potential temporary effects. **Long-term effect: No** Not applicable.	Potential impacts are temporary and can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
	regulations and clean soils would be used to backfill excavations where contaminated soil and/or water was discovered.	effect as contaminated oil and/or water discovered during excavation would be dealt with according to applicable regulations and clean soils would be used to backfill excavations where contaminated soil and/or water was discovered.	clean soils would be used to backfill excavations where contaminated soil and/or water was discovered.					
Natural environment resources – SWP	**Temporary and long-term effects: No** The Porcupine TS is within the Mattagami SPA with a mapped HVA intersecting a small portion of the northeastern corner. However, the work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to include impacts to SWP features.	**Temporary and long-term effects: No** The Porcupine TS is within the Mattagami SPA with a mapped HVA intersecting a small portion of the northeastern corner. However, the work proposed at the Porcupine TS will be entirely within the existing footprint of the station and is not anticipated to include impacts to SWP features.	**Temporary and long-term effects: No** The Wawa TS is not within a mapped Source Protection Region.	**Temporary and long-term effects: Yes** The Pineland Forest and Abitibi River FMUs intersect the Mattagami Region SPA. The PSA of the preferred route is projected to intersect an IPZ 3, while simultaneously intersecting planned active forestry operations during the 2026 and 2027 forestry season. Development is not identified as a significant threat in IPZ 3 areas; impacts to source	**Temporary and long-term effects: No** Not applicable. No aggregate resource operations have been identified to intersect both the Project LSA and the Mattagami Source Protection Region. The LSA does not intersect other Source Protection Regions.	**Temporary and long-term effects: Yes** Several mining tenures, exploration permits, and mining exploration activity areas intersect an IPZ 3 and HVAs within the Project LSA. Development is not identified as a significant threat in IPZ 3 and HVA areas; potential impacts to source water can be mitigated through Project and sector-specific measures.	**Temporary and long-term effects: Yes** Multiple resource sectors have been identified as having the potential to impact SWP features within the LSA. However, potential impacts to source water can be mitigated through Project and sector-specific measures.	Development is not identified as a significant threat to source water in the Project area. Potential impacts to source water can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

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				water can be mitigated through Project and sector-specific measures.				
Natural environment resources – designated or special natural areas: Lake trout lakes, historical fish stocking areas, and fish activity areas	**Temporary and long-term effects: No** Not applicable. There are no lake trout lakes, historical fish stocking areas, or fish activity areas overlapping the station footprint.	**Temporary and long-term effects: No** Not applicable. There are no lake trout lakes, historical fish stocking areas, or fish activity areas overlapping the station footprint.	**Temporary and long-term effects: No** There is a lake trout lake within approximately 150 m from the station; however, all proposed works are within the existing station footprint and no impacts to lake trout lakes, historical fish stocking areas, or fish activity areas are anticipated.	**Temporary and long-term effects: No** There are no mapped harvest planning areas that overlap with lake trout lakes, historical fish stocking areas, or fish activity areas. One active harvest planning area within the applicable FMPs is in close proximity (within approximately 200 m) to a fish spawning area within the Missinaibi FMU. The Missinaibi FMP (2021) outlines specific measures to protect fish activity areas and spawning areas. No effects to fish activity areas are anticipated due to active forestry harvesting within the LSA.	**Temporary and long-term effects: No** Not applicable. There are no aggregate pits which overlap with lake trout lakes, historical fish stocking areas, or fish activity areas within the LSA.	**Temporary and long-term effects: Yes** There is overlap of fish activity areas and Mining Land Tenure and Exploration Permits within the LSA. O. Reg. 240/00 includes provisions related to surface water monitoring and site-specific mitigation measures may be used to avoid or reduce impacts. It is expected that all applicable permits and licences would be obtained prior to work that may affect fish habitat and fish activity areas.	**Temporary and long-term effects: Yes** One resource sector has been identified as having the potential to impact fish activity areas. It is expected that mining and exploration operations will obtain applicable permits and approvals prior to commencing work within fish habitat and fish activity areas.	Resource sector and site-specific mitigation measures carried out through permitting, approvals, and licence requirements can mitigate potential effects. No additional mitigation measures are proposed.

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Natural environment resources – designated or special natural areas: EMAs, conservation reserves, and provincial parks	**Temporary and long-term effects: No** Not applicable. The refurbishment does not intersect with EMAs, conservation reserves, or provincial parks.	**Temporary and long-term effects: No** Not applicable. The project does not intersect with EMAs conservation reserves, or provincial parks.	**Temporary and long-term effects: No** Not applicable. The project does not intersect with EMAs, conservation reserves, or provincial parks.	**Temporary and long-term effects: Yes** Effects on these areas are anticipated due to changes in tree and vegetation cover. Hauling and harvesting may adversely affect the visual and audio aesthetics for area users (Pineland, 2021).	**Temporary and long-term effects: Yes** The Tikamaganda Recreation Access Area permits aggregate extraction with some restrictions and guidelines (MNR, 2025). Under the *Provincial Parks and Conservation Reserves Act*, 2006, S.O. 2006, c.12 the extraction of aggregate is a prohibited activity; therefore, no impacts to conservation reserves or provincial parks are anticipated due to aggregate operations.	**Temporary and long-term effects: Yes** The Tikamaganda Recreation Access Area permits mining exploration and development with some restrictions and guidelines (MNR, 2025). Under the *Provincial Parks and Conservation Reserves Act*, 2006, S.O. 2006, c.12 prospecting, staking mining claims, and developing mineral interests or working mines are prohibited activities; therefore, no impacts to conservation reserves or provincial parks are anticipated due to mining operations.	**Temporary and long-term effects: Yes** Multiple resource sectors have been identified as having the potential to impact designated or special natural areas.	Project and sector-specific measures and permissions within designated Crown land use areas are regulated under provincial laws and regulations. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features:	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain	**Temporary and long-term effects: Yes** Forestry operations include the removal of trees for commercial	**Temporary and long-term effects: Yes** Aggregate resource sector operations include the removal of vegetation.	**Temporary and long-term effects: Yes** Mining resource sector operations include the	**Temporary and long-term effects: Yes** Several resource sectors involve the removal of vegetation which may result in	Vegetation removal is required for several sectors; however, Project and sector-specific mitigation measures can be implemented to restore

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Vegetation communities	inside the existing TS footprint.	inside the existing TS footprint.	inside the existing TS footprint.	products and forestry management.		removal of vegetation.	cumulative effects where they overlap with the Project. However, Project and sector-specific mitigation measures can be implemented to manage potential effects.	vegetation where possible and reduce contributions to cumulative effects. Hydro One will be implementing a Biodiversity Initiative to fund habitat creation and enhancement projects. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features: Wetlands	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Some FMPs within the Project LSA include provisions to protect wetlands from significant damage to wetland vegetation or disruption of hydrological function (Romeo Malette FMP, 2018; Pineland FMP, 2021). Impacts to wetlands from forestry sector operations are anticipated to be related to edge effects, transient, and temporary in nature.	**Temporary and long-term effects: Yes** Potential impacts to wetlands through erosion and sedimentation as well as the removal of wetland vegetation. The PPS notes that development and site alteration shall not be permitted in PSWs north of Ecoregions 5E, 6E, and 7E.	**Temporary and long-term effects: Yes** Potential impacts to wetlands through erosion and sedimentation as well as the removal of wetland vegetation. The PPS notes that development and site alteration shall not be permitted in PSWs north of Ecoregions 5E, 6E, and 7E.	**Temporary and long-term effects: Yes** Multiple resource sectors have the potential to impact wetlands. Impacts can be mitigated with the application of sector and site-specific measures.	Some impacts to wetlands have been identified; however, within the area of overlap, there are minimal riparian vegetation removals anticipated. Sector and site-specific mitigation measures can be implemented to restore vegetation and wetland communities where possible and reduce contributions to cumulative effects. Hydro One will be implementing a Biodiversity Initiative to fund habitat creation and enhancement projects. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Natural environment resources – natural heritage features: Fish and aquatic habitat	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations have potential for temporary and long-term impacts to fish and fish habitat through vegetation removals, accidental spills, and erosion and sedimentation. However, FMPs require mitigation and approvals where applicable.	**Temporary effect: Yes** Aggregate resource sector operations have potential for temporary impacts to fish and fish habitat through vegetation removals, accidental spills, and erosion and sedimentation. **Long-term effect: No** Aggregate resource sector operation effects on fish and fish habitat are anticipated to be temporary in nature. Impacts to fish and fish habitat are regulated through the DFO.	**Temporary effect: Yes** Mining and exploration resource sector operations have potential for temporary impacts to fish and fish habitat through vegetation removals, accidental spills, and erosion and sedimentation. **Long-term effect: No** Mining and exploration resource sector operation effects on fish and fish habitat are anticipated to be temporary in nature. Impacts to fish and fish habitat are regulated through the DFO.	**Temporary effect: Yes** Multiple resource sectors have identified potential for temporary effects on fish and fish habitat. Project and sector-specific mitigation measures can be implemented to manage potential temporary effects. **Long-term effect: Yes** One resource sector has identified potential for long-term effects to fish and fish habitat. Project and sector-specific mitigation measures can be implemented to manage potential long-term effects.	Project and sector-specific mitigation measures carried out through permitting, approvals, and licence requirements can mitigate effects to fish and fish habitat. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features: SAR birds	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations have potential for impacts to SAR birds including vegetation clearing	**Temporary and long-term effects: Yes** Aggregate resource sector operations have the potential to impact SAR birds through nuisance	**Temporary and long-term effects: Yes** Mining and exploration resource sector operations have the potential to	**Temporary and long-term effects: Yes** Multiple resource sectors have identified potential effects on SAR birds. Project and sector-	Potential impacts can be mitigated through Project and sector-specific mitigation measures, including those carried out through potential permitting and/or

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
	inside the existing TS footprint.			and nuisance sensory effects. However, FMPs within the LSA include provisions related to impacts to SAR.	sensory effects and habitat loss.	impact SAR birds through nuisance sensory effects and habitat loss.	specific mitigation measures can be implemented to manage potential effects.	through conditional exemptions under provincial and federal SAR legislation. Hydro One will be implementing a Biodiversity Initiative to fund habitat creation and enhancement projects. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features: SAR bats	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations have potential for impacts to SAR bats including nuisance sensory effects and habitat loss. However, FMPs within the LSA include provisions related to impacts to SAR bats.	**Temporary and long-term effects: Yes** Aggregate resource sector operations have the potential to impact SAR bats through nuisance sensory effects and habitat loss.	**Temporary and long-term effects: Yes** Mining and exploration resource sector operations have the potential to impact SAR bats through nuisance sensory effects and habitat loss.	**Temporary and long-term effects: Yes** Multiple resource sectors have identified potential effects on SAR bats. Project and sector-specific mitigation measures can be implemented to manage potential effects.	Potential impacts can be mitigated through Project and sector-specific mitigation measures, including those carried out through potential permitting and/or through conditional exemptions under provincial and federal SAR legislation. Hydro One will be implementing a Biodiversity Initiative to fund habitat creation and enhancement projects. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features:	**Temporary and long-term effects: No** Not applicable, refurbishment activities are	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain	**Temporary and long-term effects: Yes** FMPs within the LSA include provisions related to	**Temporary and long-term effects: Yes** Potential for aggregate operations to result in	**Temporary and long-term effects: Yes** Potential for mining operations and exploration to	**Temporary and long-term effects: Yes** Multiple resource sectors have identified potential	Potential impacts can be mitigated through Project and sector-specific mitigation measures. Hydro One will be implementing a

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Wildlife and SWH	planned to remain inside the existing TS footprint.	inside the existing TS footprint.	inside the existing TS footprint.	impacts to wildlife and wildlife habitat. Potential effects include disturbance or loss of wildlife habitat, including habitat fragmentation.	disturbances or loss of wildlife habitat, including habitat fragmentation.	result in disturbances or loss of wildlife habitat, including habitat fragmentation.	effects on wildlife and wildlife habitat during construction activities. Project and sector-specific mitigation measures can be implemented to manage potential effects.	Biodiversity Initiative which will fund habitat creation and enhancement projects. No additional mitigation measures are proposed.
Natural environment resources – natural heritage features: Invasive species	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Invasive species, particularly flora, have the potential to be transported on vehicles and other equipment. Effects can be mitigated through clean equipment protocols.	**Temporary and long-term effects: Yes** Invasive species, particularly flora, have the potential to be transported on vehicles and other equipment. Effects can be mitigated through clean equipment protocols.	**Temporary and long-term effects: Yes** Invasive species, particularly flora, have the potential to be transported on vehicles and other equipment. Effects can be mitigated through clean equipment protocols.	**Temporary and long-term effects: Yes** Multiple resource sectors have potential to contribute to the spread of invasive species. Project and sector-specific mitigation measures can be implemented to manage potential effects.	Potential impacts can be mitigated through sector or site-specific mitigation measures. No additional mitigation measures are proposed.
Indigenous lands and interests	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations have the potential for a range of effects on Indigenous lands and interests such as impacts to culturally significant tree species, wildlife, and cultural/spiritual practices. Forest management	**Temporary and long-term effects: Yes** Aggregate operations have the potential for a range of effects to Indigenous lands and interests. Effects are managed through consultation and Impact and Benefit Agreements with affected Indigenous communities.	**Temporary and long-term effects: Yes** Mining and exploration operations have the potential for a range of effects to Indigenous lands and interests. Effects are managed through consultation and Impact and Benefit Agreements with affected	**Temporary and long-term effects: Yes** Multiple resource sectors have potential for effects to Indigenous lands and interests. Project and sector-specific consultation and mitigation measures can be implemented to manage effects.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
				planning includes consultation with Indigenous communities to identify and mitigate effects.		Indigenous communities.		
Recreational resources	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations and recreational activities are mapped and coordinated in the FMPs to help mitigate impacts. Forestry management supports recreational activities through sustainable management practices and wildfire suppression (Romeo Malette FMP, 2018; Algoma FMP, 2020; Missinaibi FMP, 2021; Pineland FMP, 2021; Abitibi FMP, 2022).	**Temporary effect: Yes** Potential for temporary disturbance of tourism and enjoyment of recreational resources, particularly those related to remote tourism, where presence of industrial activities impacts the sense of remoteness. **Long-term effect: No** Under O. Reg. 244/97, decommissioned aggregate pits shall be either restored to the land use which occurred on the site immediately prior to the operation of the pit, or excavation faces shall be sloped and the site revegetated.	**Temporary effect: Yes** Potential for temporary disturbance of tourism and enjoyment of recreational resources, particularly those related to remote tourism, where presence of industrial activities impacts the sense of remoteness. **Long-term effect: No** Under O. Reg. 240/00, mining open pits shall be rehabilitated through measures that take consideration of proximity to recreational areas.	**Temporary effect: Yes** Multiple resource sectors have potential for effects to recreational resources. Project and sector-specific mitigation measures can be implemented to manage potential temporary effects. **Long-term effect: Yes** One resource sector has been identified as having potential for long-term effects to recreational resources. However, effects to recreational resources from forestry operations are not necessarily adverse due to sustainable management practices and wildfire suppression.	Potential impacts can be mitigated through Project and sector-specific measures. No additional mitigation measures are proposed.

Environmental concern	Porcupine TS component replacement	Porcupine TS upgrades for Crawford Mine	Wawa TS component replacement	Forestry operations	Aggregate operations	Mining and exploration operations	Cumulative effects analysis	Conclusion
Visual and aesthetic resources	**Temporary and long-term effects: No** Not applicable, refurbishment activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: No** Not applicable, project activities are planned to remain inside the existing TS footprint.	**Temporary and long-term effects: Yes** Forestry operations have potential to temporarily impact visual and aesthetic resources through ongoing operations. However, FMPs applicable to the Project account for visual and aesthetic impacts to sensitive receptors, particularly recreational space users, and along highways and municipal roads (Algoma FMP, 2020).	**Temporary and long-term effects: Yes** Aggregate operations have potential to impact visual and aesthetic resources through ongoing operations and landscape alteration. Generally, berms prevent residents and land users from seeing much of aggregate site use, although some ancillary uses may be visible (Gravel Watch Ontario, n.d.).	**Temporary and long-term effects: Yes** Mining and exploration resource sector development includes temporary and long-term changes to views or an area's aesthetics. Generally, maintaining vegetation or physical buffers (i.e., berms) along roads and waterbodies, and contouring to existing topography, are recommended mitigation measures.	**Temporary and long-term effects: Yes** Multiple resource sectors have identified the potential for effects to visual and aesthetic resources. Project and sector-specific mitigation measures can be implemented to manage potential effects.	Multiple resource sectors have been identified as having the potential for visual changes. However, the area of overlap with the Project is small and occurs in areas with existing industrial uses and infrastructure. Additionally, the area's visual context includes large areas of tree cover, and the transmission line will represent relatively minor visual disruptions to area users and sensitive receptors. No additional mitigation measures are proposed.

7.11.6. Summary of cumulative effects

The potential cumulative effects for the Project were assessed by considering potential effects from other undertakings that interact and overlap with the Project LSA. No publicly available EAs were identified for the projects included in **Table 7-3**. Therefore, potential effects were determined through a combination of available online resources such as FMPs, aggregate resource mapping, and mining contractor websites, as well as through information provided by Hydro One.

The CEA determined that there are no areas of environmental concern that will result in a significant cumulative effect. The mitigation measures outlined for the Project, summarized in **Table 7-2**, provide adequate Project-specific mitigation that remains effective after considering cumulative effects from the other activities considered in this assessment. In the event some or all of the activities identified in this CEA proceed concurrently, temporary construction-related effects can be further coordinated among the Hydro One project teams and the applicable resource sector operator(s) for mitigation.

8.0 Effects monitoring

The purposes of effects monitoring are:

- 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 determine whether additional measures are warranted; and
- To confirm that the commitments and conditions of approval (where applicable) are met and that the Project complies with other environmental legislation.

An Environmental Specialist, acting as a representative of Hydro One, will be assigned to the Project for the duration of construction to monitor construction activities and provide guidance on needed field changes.

As noted in **Section 6.2.1**, a Project-specific EMS will be prepared following the completion of the Class EA process and before the start of construction. The EMS will:

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

Some Indigenous communities have expressed an interest in participating in monitoring during construction of the Project. Hydro One will work with its construction contractor to identify opportunities to safely involve interested Indigenous community staff in monitoring work during construction.

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

9.0 Conclusion

Hydro One is seeking approval under the EA Act to construct a new, single-circuit 500 kV transmission line based on direction provided by the IESO in October 2022. The new 500 kV transmission line will be approximately 305 km in length from Hydro One's Wawa TS near Wawa, Ontario to the Porcupine TS in Timmins, Ontario. The Project also includes the establishment of a future 500 kV TS near the existing Wawa TS along with upgrades to the existing Wawa TS and Porcupine TS.

The purpose of the Project is to:

- Improve reliability for existing and future electricity needs across the region, including Timmins and surrounding communities;
- Reinforce the transmission system in northeast Ontario and support the growing electricity demands of communities, industries, businesses, and residents; and
- Strengthen the connection between the northeast and northwest zones and improve overall resiliency of the northern Ontario transmission network.

Following receipt of the MEM designation in December 2024, Hydro One conducted a preliminary assessment to identify viable alternative routes for the new 500 kV transmission line. Preliminary routing workshops and engagement sessions occurred with the Partner First Nations prior to the NoC. The purpose of these sessions was to gather input regarding key values for consideration in the development of alternative routes.

As a result, an initial set of alternative routes was presented in June 2025 as part of the NoC. Throughout the Class EA, refinements were made to the alternative routes. These refinements were necessitated by a combination of stakeholder feedback from COH #1 and COH #2, consultation and engagement with Indigenous communities, and field and desktop studies that identified constraints not fully understood during the initial route development phase. The alternative routes that were carried into the comparative evaluation are as follows:

- **Segment A:**
  - Route A1; and

- Route A2.

- **Segment B:**
  - Route B1;
  - Route B2; and
  - Route B3.
- **Segment C:**
  - Route C1; and
  - Route C2.

Since the NoC in June 2025, the Project team consulted with Indigenous communities municipal, provincial, and federal government officials; other organizations and agencies; potentially affected landowners; and interested persons and groups. Three rounds of CISs and three rounds of COHs were held during the Project, as follows:

- CIS #1: April 2025
- COH #1: July 7 to 9, 2025;
- CIS #2: January 14 to 29, 2026;
- COH #2: February 2 to 4, 2026;
- CIS #3: May 11 to 29, 2026; and
- COH #3: June 2 to 4, 2026.

Additionally, an interactive online mapping tool has been hosted on the Project website since the NoC, with regular updates to reflect the progress of the Class EA.

A TAC was established to help inform the comparative evaluation process used to select the preferred route for the new 500 kV transmission line. The purpose of the TAC was to provide a platform for Hydro One to present information, hold discussions, and draw upon the local knowledge of individuals and organizations. Two separate TACs were established: one consisted of representatives from the Partner First Nations, and the other comprised government agencies, municipalities, and interest groups. Three rounds of TAC workshops were held during the Project, as follows:

- Indigenous TAC #1: July 22, 2025;
- Agency TAC #1: July 29, 2025;

- Indigenous TAC #2: November 20, 2025;
- Agency TAC #2: November 27, 2025;
- Indigenous TAC #3: May 8, 2026; and
- Agency TAC #3: May 12, 2026.

Feedback received from the various engagement activities was used to complete a thorough and transparent comparative evaluation of the alternative routes. The analysis resulted in the selection of a combination of **Route A2**, **Route B3**, and **Route C2** as the preferred route. Potential short- and long-term environmental effects were identified for the proposed Project, and corresponding mitigation measures were developed to address these effects. Based on information collected, Project design, and implementation of the proposed mitigation measures, no significant net adverse environmental effects are expected.

This draft ESR is being made available for public comment for 30 days, from November 12, 2026, to December 12, 2026. Hydro One will make best efforts to respond and resolve issues raised by concerned parties during the comment period. Comments received during this period, and Hydro One's responses, will be documented in the final ESR.

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

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