



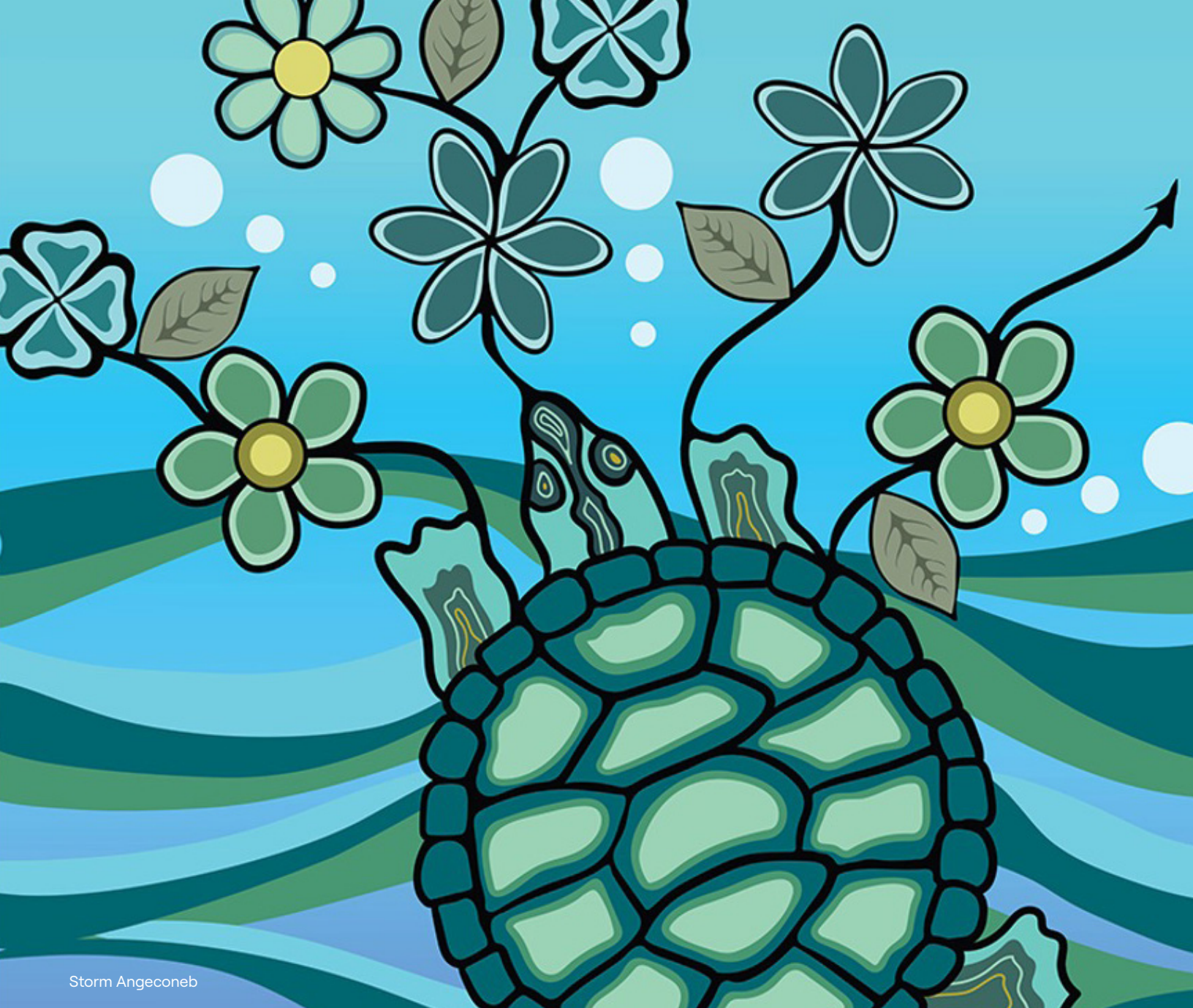
The Longwood to Lakeshore Transmission Line project

Final Environmental Study Report highlights

March 2026



Connecting power
and possibility™



Storm Angeconeb

Land acknowledgment

Hydro One acknowledges that the Longwood to Lakeshore Transmission Line project is proposed on the ancestral and treaty lands of the Anishinaabe and is now home to many diverse First Nations, Inuit and Métis people.

Hydro One understands that Indigenous Nations have been here since time immemorial and are stewards of what many refer to as Turtle Island.

We are all Treaty People and with a commitment to friendship and our pursuit of reconciliation, we are thankful to be welcomed on these lands as partners in our shared future so we can improve on our past and energize our combined futures.



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Introduction

This highlights document provides a summary of the key findings and commitments presented in the final Environmental Study Report (ESR). Completion of the final ESR marks the end of the *Class Environmental Assessment* (EA) process. The draft ESR was made available for a 30-day public comment period, from Sept. 15 to Oct. 15, 2025. Comments received during this period and Hydro One's responses are documented in the final ESR.

View the full final environmental study report here:
HydroOne.com/Longwood-to-Lakeshore





About the Longwood to Lakeshore Transmission Line project

The Longwood to Lakeshore Transmission Line project involves the development of two new single-circuit 500 kilovolt (kV) transmission lines, each approximately 120 kilometres in length, between the Longwood Transformer Station (TS) located in the Municipality of Strathroy-Caradoc and the Lakeshore TS located in the Municipality of Lakeshore.

The Independent Electricity System Operator (IESO) identified the need for the first transmission line to be in service by 2030, and the Government of Ontario advised Hydro One to concurrently conduct early development work on the second line due to significant expected demand.

The project also includes the expansion of the Lakeshore TS including the addition of two 500 kV transformers and upgrades, along with the eventual expansion of the Longwood TS to facilitate the connection of the new transmission lines.

Hydro One is closely collaborating with Aamjiwnaang First Nation, Caldwell First Nation, Chippewas of Kettle and Stony Point First Nation, Chippewas of the Thames First Nation and Walpole Island First Nation on this project. These partners will also have the opportunity to invest in the transmission line component of the project through Hydro One's industry-leading First Nation Equity Partnership Model.

Selecting the preferred route

We evaluated route alternatives based on environmental field studies, research and input regarding the potential benefits and challenges of each option. The route evaluation process used four evaluation categories, which were applied to all routes in a transparent manner.



**Indigenous
culture, values
and land use**



**Natural
environment**



**Socio-economic
environment**



**Technical
and cost**

After completing a thorough study of the project area and engaging with Indigenous communities and the public, Hydro One selected the preferred route in May 2025. The preferred route:

- Minimizes impacts to Indigenous communities and Treaty Rights Holders
- Maximizes the use of existing transmission corridors
- Minimizes impacts on residential properties
- Will have the least effect on surface water resources and aquatic habitats
- Minimizes effect to species at risk and their habitats
- Results in the least amount of vegetation removal



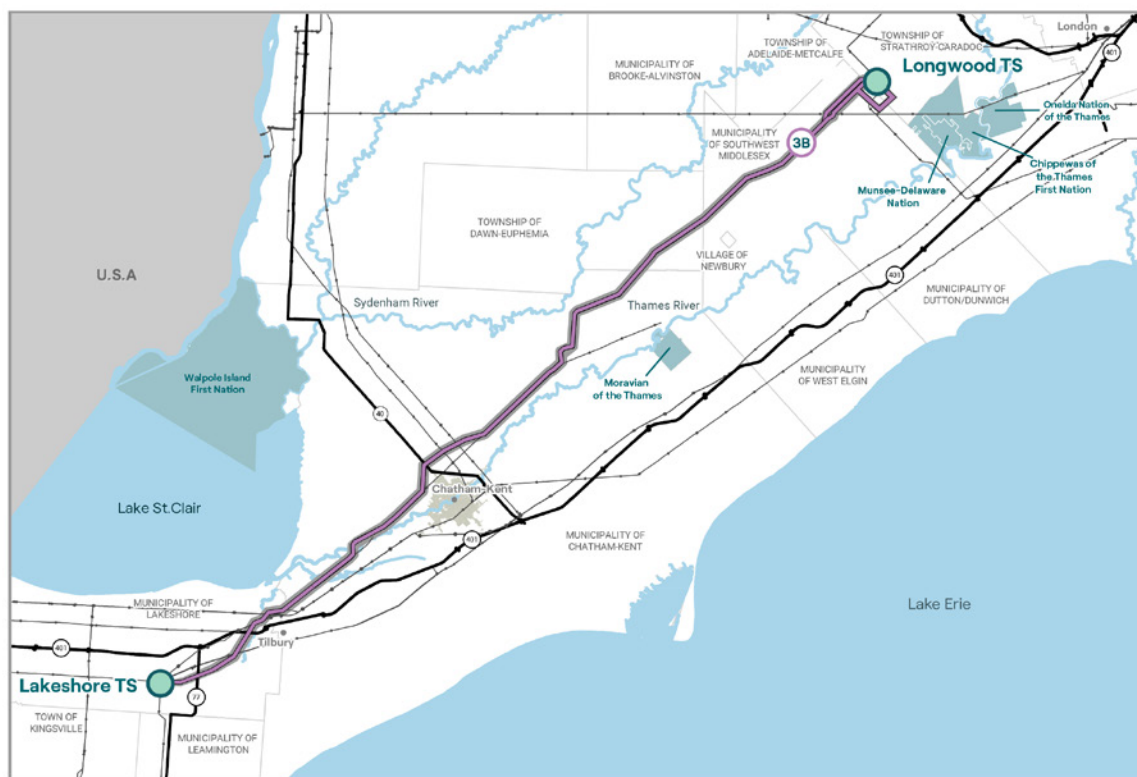
Longwood to Lakeshore Transmission Line project

Map Legend

- Transformer Station (TS)
- Preferred Route 3B
- Local Study Area
(500 m buffer on either side
of the route alternatives)
- Existing Transmission Line
- Highway
- Municipal Boundary
- Waterbody
- First Nation
- Built Up Area

Note: The illustrated route represents two transmission lines with parallel alignments, except near Longwood TS where the two lines have slightly different alignments exiting the station.

0 5 10 km



Please visit our online interactive map for a more detailed view: HydroOne.com/Longwood-to-Lakeshore



Investing in southwest Ontario

The project consists of two new single-circuit, 500 kilovolt transmission lines, each approximately 120 kilometres (km). The in-service date for the first line is planned for 2030 and is expected to add approximately 550 megawatts (MW) of power to the electricity network in southwest Ontario. The in-service date for the second line will be determined by the Independent Electricity System Operator (IESO). The IESO anticipates demand in southwest Ontario to quadruple by 2035. As the region grows, power is needed to improve reliability and to support economic and community growth now and in the future.

First Nations partnerships

The project will enable First Nations with meaningful procurement, employment and investment opportunities.

Economic growth

The lines are expected to support economic prosperity and job creation in the region. Along with powering homes, businesses and industry, it will support key industries, including electric vehicle technology and the agricultural sector.

Local food supply

The lines will support local food supply and security, including helping farmers and greenhouse producers thrive.

Clean electricity

The project will provide a reliable supply of clean electricity, which means communities and businesses can continue to grow.

By the numbers



120 km

The approximate length of each of the lines.



Quadruple

The expected increase in energy demand in the region by 2035.



550 MW

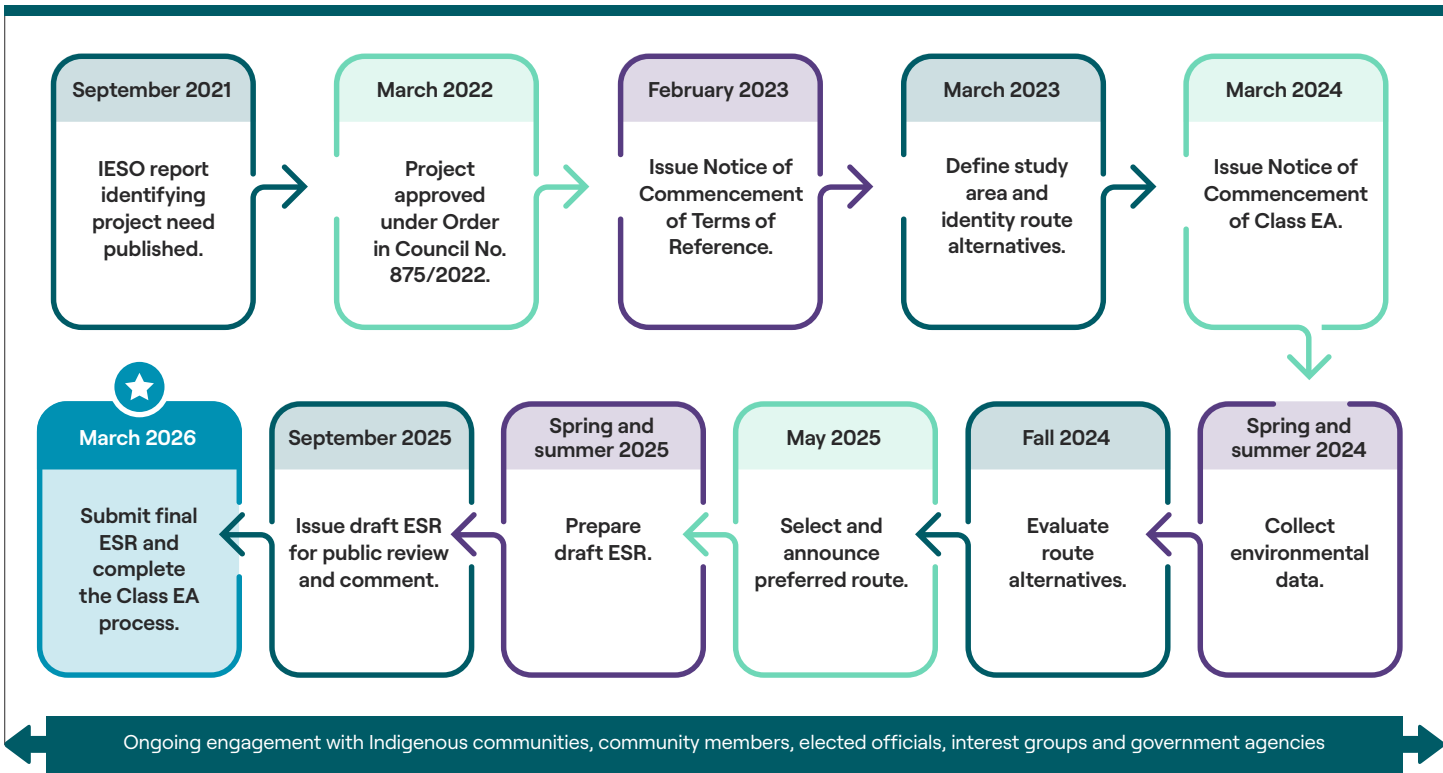
The amount of electricity the first line is expected to supply to the region, enough to power a city the size of London.



About the Class Environmental Assessment

The Environmental Assessment (EA) for this project transitioned from a Comprehensive EA to a Class EA in February 2024, following changes to Ontario’s *Environmental Assessment Act*. The Class EA for Transmission Facilities (2024) is an approved streamlined planning process for transmission projects that have a predictable range of environmental effects and have industry-standard measures that can be implemented to limit them.

Planning timeline and milestones



The final ESR:

- Details the consultation we have undertaken with Indigenous communities, interest groups including agricultural advocacy groups, government agencies, municipal staff, elected officials and the public
- Outlines the route identification and evaluation process used to select the preferred route
- Describes the existing conditions of the area surrounding the proposed project
- Predicts and assesses potential environmental effects of the project
- Identifies the mitigation measures that we will take to minimize and avoid potential negative project effects
- Provides a summary of the comments received on the draft ESR and Hydro One’s responses to those comments



Working in partnership with Indigenous communities

Hydro One, in collaboration with Indigenous communities, will continue to meet southwest Ontario's long-term electricity demands as we develop the Longwood to Lakeshore Transmission Line project.

The project follows Hydro One's industry-leading First Nation Equity Partnership Model and will offer proximate First Nations the opportunity to invest in 50 per cent equity on the transmission line component of the project.

Hydro One is closely collaborating with five First Nation partners on the project, including Aamjiwnaang First Nation, Caldwell First Nation, Chippewas of Kettle and Stony Point First Nation, Chippewas of the Thames First Nation and Walpole Island First Nation.

By continuing to work collaboratively with communities in the development of our construction mitigation plans, we will deliver the project in a manner that limits or avoids effects to the environment and communities. Our continued work with communities will allow us to better understand traditional knowledge, areas of cultural significance and cultural values.

The partnership includes feedback and direct engagement through in-person community open house sessions. These sessions are especially important for building trust, sharing clear information and providing community members with opportunities to ask questions and be heard.

What we've heard



Economic participation supports project advancement while enabling long-term community wellbeing.



Work collaboratively on archeological assessments.



Engage in developing the Environmental Management Plan and preconstruction mitigation plans.



Recognize historical land use and connections to the land.



Protect water, wildlife and species at risk that are culturally important.

Engagement



Open houses, property visits and registered mail to potentially affected property owners



Notices, newspaper and social media ads



Ongoing calls and emails



Meetings with stakeholders, local elected officials and interest groups



Interactive map



Meetings with Indigenous communities who hold Aboriginal and Treaty rights in the project area

Over the past several years, thousands of people have participated in engagement opportunities – both in person, such as open houses, meetings and property visits and online. Input from early engagement helped to identify and refine routes. Feedback was used to confirm the prioritization of route evaluation criteria, including the importance of minimizing effects on agricultural operations and woodlots, minimizing potential effects on lands used for traditional cultural purposes by Indigenous communities, as well as the preference for co-location with or re-use of existing infrastructure corridors. Engagement themes, questions received and answers provided are included in the final ESR.

A Technical Advisory Committee was also established, including representatives from Indigenous communities, agricultural and environmental associations, governmental agencies and municipalities. The committee held four rounds of workshops to gain perspectives for the route alternatives. Input from Indigenous communities, Technical Advisory Committee workshops and other interested parties also helped to inform weighting (importance) of criteria. For example, the agricultural criterion was refined to better account for livestock operations.



Hydro One's team conducts a number of on-the-ground field studies to understand the areas where our projects will take shape. This includes studies which helped inform the evaluation of the route alternatives and selection of the preferred route.

For comments from interested parties and Rights Holders as well as responses from Hydro One, see Section 3.0 of the final ESR.



What we heard during the comment period

During the comment period for the draft ESR, Hydro One received important feedback from Indigenous communities, the Ministry of the Environment, Conservation and Parks, government agencies, property owners, interest groups and the public.

These groups shared the importance of:

- Continuing to consult with Indigenous communities on the Environmental Management Plan and pre-construction mitigation plans, including invasive species monitoring and spill prevention
- Consideration of effects to local water, including source water protection areas, groundwater resources and water wells
- Consideration of impacts to natural features in the area, including woodlots and wetlands
- Consideration of effects to animals and wildlife habitat, including the potential roosting habitat of bat species at risk and migratory birds
- Indigenous community involvement in upcoming archaeological assessment field surveys

Expressed interest in continuing engagement on:

- Interest in further engagement on the biodiversity initiative and post-construction restoration activities
- Interest in forthcoming changes to Species at Risk regulation and implications on mitigation outlined in the ESR and construction planning

We also answered questions on:

- The evaluation of the route alternatives
- The Class Environmental Assessment process and Section 92 Leave to Construct Approval
- The risks of stray voltage and electric and magnetic fields (EMF)
- Regional planning studies conducted by the Independent Electricity System Operator (IESO) and timing of construction of the second line
- Affected property owner compensation



Hydro One prioritizes safety in all our projects. We design and operate our equipment in accordance with all regulatory requirements. Health Canada has found no conclusive evidence of any harm caused by electric and magnetic fields (EMF) exposure from transmission lines. It also does not consider that any precautionary measures are needed regarding daily exposures to EMFs at extremely low frequencies.

Discover more at
HydroOne.com/EMF

Comments from the comment period and responses from Hydro One are included in Appendix B-7 of the final ESR.



Our actions

The Longwood to Lakeshore Transmission Line project is not expected to create significant net effects to the environment or communities, especially as the preferred route maximizes the use of existing transmission corridors. Overall, the final ESR concludes that potential effects can be managed through measures that we will take, including specific actions to limit or avoid potential effects on agriculture, plants and wildlife, water and more.

The final ESR also outlines that:

- The project is helping to meet current and future electricity needs in southwest Ontario
- There is a potential for increased economic opportunity for the region
- The project benefits outweigh its potential effects
- Hydro One will implement the proposed mitigation measures to address potential short and long-term environmental effects of the project

Key actions Hydro One will continue to take

Working with Indigenous communities

We understand that Hydro One's projects succeed when Indigenous communities succeed and that we all benefit from a greater understanding of Indigenous issues, opportunities and knowledge. We will foster lasting partnerships rooted in respect, transparency and collaboration, ensuring Indigenous voices, knowledge and values help shape how the project is planned, executed and experienced.

Working with property owners

Where the proposed lines cross properties, we will work with owners to understand the unique features of their properties.

Enhancing community benefits

We continue to work with Indigenous communities and other interest groups, including agricultural advocacy groups, as well as local communities to identify opportunities to benefit the area in a positive way.

Effects monitoring

Hydro One and its contractors will continue to undertake environmental surveys and analysis to understand and minimize project effects. This work will also support permitting as construction planning and design progress.

Biodiversity initiative

Hydro One will undertake a biodiversity initiative for the project to offset any habitat loss or transition (long-term change) that may occur as a result of the project. Hydro One will engage with Indigenous communities, municipalities, conservation authorities, environmental interest groups and any other interested parties to discuss the implementation of the biodiversity initiative.



Highlights: Indigenous culture, values and land use

This section summarizes how we will limit or avoid effects to Indigenous culture, values and resources during construction and operations.



Indigenous culture, values and land use

What we found

Stewardship of the land, protection of species at risk and wildlife as well as water and aquatic species, are culturally significant and important to Indigenous communities. The protection of cultural resources, the recognition of Indigenous historical land uses and importance of cultural continuity are also part of our continued engagement.

What we'll do

- Continue to engage with Indigenous communities throughout the project to provide regular project updates and to ensure their concerns are understood and solutions are collaborative.
- Continue to provide opportunities for interested Indigenous communities to monitor archaeological and natural environment field surveys and review reports.
- Work collaboratively with Indigenous communities to identify if any Indigenous plant harvesting areas are present and may require additional consideration as part of construction planning.
- Share Environmental Management Plans with communities for their review and input.
- Involve interested communities in the biodiversity initiative and explore how Traditional Ecological Knowledge can be applied where willingly provided.
- Apply a 400 metres buffer radius to an identified bald eagle nest and take targeted mitigation measures to minimize disturbance, recognizing that bald eagles are considered sacred.

Key takeaway

Building meaningful relationships with Indigenous communities is essential to the success of this project. Our commitment goes beyond consultation. We will foster lasting partnerships rooted in respect, transparency and collaboration, ensuring Indigenous voices, knowledge and values help shape how the project is planned, executed and experienced.

The project study area is located within the traditional territory of several Indigenous communities. Indigenous communities were engaged early in the planning process and have been providing meaningful inputs to ensure their perspectives and concerns are captured in the final ESR.

Explore more about what we studied and found in Section 7.9 of the final ESR.



Southwest Ontario is a major corn-producing region in Canada, often described as the nation's food belt, with sweet, seed and grain corn being significant crops.

Highlights: socio-economic environment

This section summarizes how we will limit or avoid disruptions and other effects to local agricultural operations, land use and communities. This includes business operations in the project area, local roads and traffic and potential future development. Some of this work also overlaps with our evaluations of Indigenous culture, values and land use.



Agricultural lands, crops and soils

What we found

Construction activities may temporarily impact cropland use and these activities may cause temporary compaction. While we will strive to avoid these effects and most will be temporary, there will be some permanent loss of agricultural crop land within the physical footprint of the new towers.

A summary of what we'll do

- Locate towers along property lines or field boundaries to reduce interference with agricultural equipment maneuverability, where practical.
- Limit construction activities and equipment movement to clearly defined access roads, staging areas and work zones, and maintain communication with landowners regarding any necessary expansions.
- Construct temporary access roads and work pads using mats, geotextiles or gravel pads and restore affected areas promptly following construction.
- Minimize soil excavation, carefully strip and separately stockpile topsoil and subsoil, and replace them in reverse order to maintain soil productivity.
- Conduct soil-handling activities in dry conditions where practical to prevent mixing, rutting or other soil disturbances, and regularly clean construction equipment to prevent soil cross-contamination between agricultural properties.
- Protect and repair agricultural drainage systems (e.g., tile drains) as needed and remove excess construction materials from agricultural lands upon completion of work.
- Reimburse for cropland out of production before, during and for a reasonable period after construction.
- Promptly address damages if experienced (e.g., tile drainage).

Key takeaway

We will strive to protect farmland, minimize disruptions and work alongside farmers and landowners to ensure continued agricultural use wherever possible.

Some farmers have raised concerns about the potential for overhead transmission lines to interfere with automated GPS-guided farm equipment. While we do not anticipate effects to communication systems in farm equipment, we will work with concerned farmers to gain further insight into potential concerns and possible solutions, if applicable.

Explore more about what we studied and found in Section 7.1 of the final ESR.



Drainage and field tiles

What we found

Adequate drainage of agricultural fields is critical to local farmers due to the naturally wet conditions of the region. Some construction activities have the potential to interfere or damage agricultural tile drainage if not properly assessed and identified prior to construction activities taking place.

What we'll do

- Consult landowners to identify field tile locations and implement protective measures to avoid tile drain damage.
- Use low-impact equipment, protective mats, geotextiles or gravel pads during construction activities in tiled agricultural areas.
- Work in consultation with the affected landowner to repair tile drains damaged by construction, using a licensed tile drainage contractor.

Key takeaway

We will identify, protect and where necessary, repair tile drains in close collaboration with landowners. Our goal is to ensure construction activities are compatible with long-term agricultural use, with minimal disruption to field drainage.

Agriculture is an important part of southwest Ontario's regional economy. Most agricultural land use in southwest Ontario is designated for the production of cash crops and greenhouses.

Explore more about what we studied and found in Section 71.5 of the final ESR.



Livestock

What we found

Construction and maintenance activities will happen within pastures and grazing fields. Some planned work may startle or disrupt livestock, but this can be limited or avoided with mitigation measures.

What we'll do

- Work closely with landowners and farmers to understand their unique properties and keep them informed of work.
- Limit vehicle and equipment travel to designated access routes or existing pathways where feasible and maintain gates, fencing and exclusion barriers to prevent livestock escape or injury.
- Implement a Blasting Communication and Management Plan for implosive conductor splicing, including advanced notification, signage and strict adherence to safety protocols.
- Regularly inspect and clean vehicles and equipment to prevent the potential spread of livestock diseases between properties.
- Keep work areas secure, maintain equipment in good condition with functioning mufflers and ensure daily cleanup to minimize risks to livestock health and safety.

Key takeaway

We understand that livestock health and safety are vital to farm operations. We will work closely with landowners to minimize disruption, communicate proactively and implement measures that protect livestock from stress, injury or loss during construction.

Our goal is to ensure construction activities are compatible with ongoing agricultural use and animal welfare. Field crews will be informed about livestock in the vicinity of work areas to confirm they are aware of the need to secure gates, are cognizant of noise sensitivity controls and ensure cleanup of construction materials and debris at the end of each day.

Explore more about what we studied and found in Section 7.1.6 of the final ESR.



Land use, business operations and local roads

What we found

The project crosses multiple types of current land use designations. While most agricultural land uses are permitted within the right-of-way, there will be some temporary impacts to agricultural land. Due to construction activities there is potential for increased traffic and some temporary closures on local and regional roads. As roads are a vital part of the region's agricultural operations, work will be strategically planned to ensure that any necessary closures are brief.

What we'll do

- Maintain ongoing communication with Indigenous communities, landowners, businesses, municipalities and emergency services.
- Preserve business access throughout construction; provide alternate access and clear signage if regular access points must be temporarily closed.
- Schedule construction activities, particularly near seasonal businesses, to avoid peak operational periods, where practical.
- Conduct pre and post-construction surveys of local roads to document conditions and repair any road damage directly resulting from construction traffic.
- Develop and implement a Traffic Control Plan in collaboration with local municipalities, specifying construction haul routes, schedules, entry/exit points and traffic control measures.
- Minimize road closures during conductor stringing by using rider poles or similar protective methods and coordinating closely with road authorities to reduce closure durations.
- Provide clear notifications through local advertising and signage ahead of temporary road or lane closures, detours or other construction effects on local traffic.
- Establish common parking areas for construction crews and designated specific construction access/egress locations to manage site traffic effectively.
- Ensure regular cleaning and maintenance of local roads affected by mud or construction debris, using mud mats or other protective measures as necessary.
- Coordinate closely with railways to secure necessary permits, comply with safety regulations and minimize disruptions.

Key takeaway

We will take steps to limit or avoid the effects on local communities, including businesses. We will minimize disruption to land use and roads by planning ahead, maintaining access and keeping communities informed.

Explore more about what we studied and found in Section 7.6 of the final ESR.



A replica of the historic Liberty Bell outside the Buxton National Historic Site and Museum. Also known as the Buxton Bell, it was a gift to the Elgin settlers in 1850 from the Black community of Pittsburgh, Pennsylvania, symbolizing freedom and a reminder of those still enslaved.



Archaeological and cultural heritage resources

What we found

Southwest Ontario contains many areas with known or potential archaeological and cultural resources. While these were important considerations in shaping the project to date, additional study is needed prior to construction work commencing.

What we'll do

- Continue to collaborate with Indigenous communities on archaeological field surveys.
- In the event archaeological material is encountered during construction, pause activities in the immediate area where it is located and engage a licensed archaeologist.
- Avoid or minimize effects to Built Heritage Resources and Cultural Heritage Landscapes through careful planning of work and where avoidance is not possible, conduct a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment following Hydro One and Ministry standards.

Key takeaway

We are completing detailed studies and will continue to collaborate closely with Indigenous communities and regulators to ensure appropriate measures are in place to manage and protect archaeological resources. Hydro One has retained a licensed archaeologist and is conducting archaeological field surveys on areas with identified archaeological potential prior to construction.

Areas with potential for archaeological resources identified in the Stage 1 Archaeological Assessment are now undergoing Stage 2 surveys. These surveys began in Fall 2025 and will continue in 2026. Where Stage 2 surveys identify the need for further assessment, additional studies will continue to occur in accordance with Ministry standards.

Explore more about what we studied and found in Sections 7.4 and 7.5 of the final ESR.



The Thames River in Ontario is important for its immense ecological value, serving as a lifeline for diverse species and habitats, and for its cultural and historical significance.

Highlights: natural environment

This section highlights how we will limit or avoid significant effects on the natural environment in the project area, including air and water.



Source water, surface water and groundwater

What we found

Project activities, including dewatering (removal of groundwater) and potential spills, could affect the quantity and quality of surface water and ground water, but these can be avoided through design and construction methods.

What we'll do

- Plan soil-disturbing activities during stable, dry or frozen ground conditions where practical to minimize erosion, rutting and ponding risks.
- Use existing watercourse crossings and access routes wherever feasible to limit environmental disruption.
- Implement Erosion and Sediment Control measures (e.g., erosion blankets, silt socks) to reduce sediment runoff into waterbodies.
- Install temporary crossing structures and access roads (e.g., mats, geotextiles) at sensitive locations to protect soil and water resources.
- Minimize vegetation clearing, retain compatible vegetation near watercourses and replant disturbed areas with native species.
- Manage dewatering activities responsibly, including filtering construction water and discharging it at least 30 m away from sensitive receptors.
- Restore disturbed areas and construction laydown sites to pre-existing conditions following completion of work.
- Maintain natural drainage patterns and install equalization culverts where necessary to preserve existing water flow.
- Engage proactively with relevant conservation authorities and municipalities during detailed design and construction planning to ensure compliance and effective environmental protection.
- Use helical (screw) pile foundations, where practical, to minimize ground disturbance.
- Not use pile driving to install tower foundations
- Maintain a 15 m separation distance between towers and waterbodies.

Key takeaway

We will plan responsibly and act proactively to safeguard water throughout the life of the project. We will also work collaboratively with Indigenous communities, municipalities and regulators to uphold shared water protection values.

We will prioritize using helical (screw) piles for the transmission structure foundations where practical, which eliminate the need for excavation, de-watering and soil removal, minimizing potential effects.

Explore more about what we studied and found in Sections 7.8.4 and 7.8.5 of the final ESR.



Wetlands in southwest Ontario are vital for environmental stability, acting as natural sponges that prevent flooding and erosion, filter water, and store carbon to mitigate climate change. They are crucial for biodiversity, providing essential habitats for numerous plant and animal species, including many at risk.



Natural heritage features: wetlands, trees and wildlife

What we found

Construction activities could disturb wildlife, including species at risk, and the removal of trees could reduce available shade for fish and aquatic habitats in the project area. There is also the possibility that the project could inadvertently spread non-native or invasive species, which would be addressed through mitigation measures. In addition, some construction will take place within or near provincially significant woodlands, wetlands and significant wildlife habitat.

What we'll do

- Restrict construction activities to designated work areas and set limits for vegetation clearing in sensitive habitats and wetlands to minimize effects.
- Install temporary access features and implement erosion and sediment controls, where practical, such as silt fencing, mats and geotextiles, particularly near sensitive areas to prevent soil compaction and habitat damage.
- Schedule vegetation clearing outside of the migratory bird breeding and active bat seasons, where practical, and minimize removal by retaining compatible vegetation and root systems to foster habitat integrity, soil stabilization and regeneration.
- Provide training to construction staff on species at risk identification and protection protocols.
- Restrict equipment refueling and maintenance activities to at least 30 m away from sensitive environmental features and use spill containment measures.
- Restore disturbed areas and affected wetlands following construction using native vegetation to re-establish habitat function and maintain drainage patterns.
- Employ bird diverters near confirmed sensitive bird habitats (e.g., bald eagle nest, colonially nesting bird breeding habitat).
- Manage invasive species through proper identification, containment and disposal, equipment inspections and cleaning and prioritizing native species for restoration.
- Implement a biodiversity initiative to offset any habitat loss or transition (long-term change) that may occur as a result of the project.
- Continue to consult with Indigenous communities, regulatory agencies and municipalities on detailed construction plans and measures to avoid or mitigate effects on wildlife and species at risk.

Key takeaway

We will take steps to limit or avoid possible effects to wetlands, trees, wildlife, fish and natural habitats. We recognize the importance of protecting these parts of the natural environment and will balance project delivery with environmental responsibility.

By designing with consideration for ecological sensitivity and restoring habitats post-construction, we will support long-term biodiversity and maintain the integrity of local ecosystems for future generations.

Explore more about what we studied and found in Section 7.8.8 of the final ESR.



Air quality, emissions and noise

What we found

Dust and other emissions during the project may be a nuisance for those living in the area and there is a potential for increased noise but several measures can limit or avoid these effects.

What we'll do

- Minimize vehicle and equipment idling, utilize GPS-optimized routing and maintain equipment in good condition to reduce fossil fuel emissions.
- Implement effective dust suppression techniques such as watering and non-chloride suppressants, and stabilize or cover exposed soils and loose materials.
- Complete construction in accordance with local noise control by-laws, or obtain municipal approvals and permits if exemptions are required.
- Restore disturbed areas to reduce soil exposure and related air quality effects.
- Restrict construction-related noise and vibration to short-term, intermittent periods and obtain necessary regulatory approvals for new transformers at the station.

Key takeaway

By taking steps to minimize emissions, dust and noise during construction, we aim to reduce our environmental footprint while maintaining a respectful presence in the communities we serve.

The proposed Longwood to Lakeshore Transmission Line project will enable southwest Ontario homes and businesses to access reliable electricity.

Explore more about what we studied and found in Sections 7.8.2 and 7.8.3 of the final ESR.



Highlights: technical and cost

What we found

The selected project route is preferred from a technical and cost perspective because it maximizes the use of existing transmission corridors and has the fewest angle structures, which are transmission towers used where the line changes direction. It is the shortest of the route alternatives and minimizes effects to active commercial and industrial facilities.

What we'll do

- Ongoing engagement with Indigenous communities to shape how the project is planned and executed.
- Continue to work with landowners as design and construction planning for the selected preferred route continues.
- Continue to work with commercial and industrial operators in the region.

Key takeaway

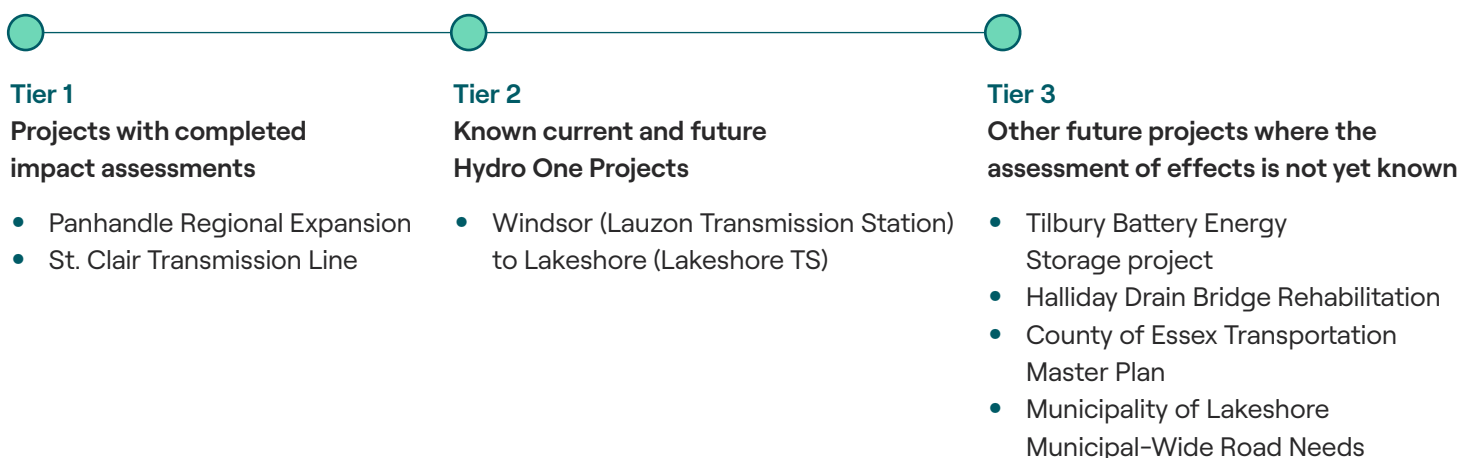
Progression of the technical design of the project resulted in a decrease in land acquisition required for Line 2, which means a decrease in overall potential effects. It also supports the rationale for the two lines having a parallel alignment.

Cumulative Effects Assessment (CEA)

What we found

The Class EA for Transmission Facilities (2024) requires an assessment to understand the effects other projects in the immediate area (500 metres) of the preferred route for the Longwood to Lakeshore Transmission Line project may have, where public documentation is available.

We reviewed known overlapping projects, categorizing them into three tiers:



Key takeaway

We expect mitigation measures described in the final ESR to reduce the project's contribution to cumulative effects. Potential impacts are largely temporary, site-specific and can be managed effectively at a project level.

We acknowledge the historical and ongoing pressures on Indigenous communities' lands and resources resulting from settlement and development activities. We will continue to work closely with Indigenous communities and partners throughout the project to understand concerns, incorporate Indigenous knowledge and identify measures to avoid, minimize and mitigate potential impacts where possible. The project arises from an identified regional electricity system need, as determined by the Independent Electricity System Operator (IESO), with Hydro One directed by the Government of Ontario through an Order in Council to develop, construct and operate the new transmission line. In carrying out this work, the CEA focused on the immediate project area and known developments, recognizing that broader future development driven by the project is beyond Hydro One's control.

Explore more about what we studied and found in Section 7.14 of the final ESR.



Final Environmental Study Report

Hydro One has completed the final Environmental Study Report for the Longwood to Lakeshore Transmission Line project and submitted it to the Ministry of the Environment, Conservation and Parks. This marks the end of the Class Environmental Assessment process.

View the final ESR online.
[HydroOne.com/
Longwood-to-Lakeshore](https://HydroOne.com/Longwood-to-Lakeshore)



For questions or comments, contact **Hydro One
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