



St. Clair Transmission Line Project

Environmental Study Report Highlights

November 2023



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Introduction

Hydro One is pleased to share the highlights of the Draft Environmental Study Report (ESR) for the St. Clair Transmission Line project. The Draft ESR is a key milestone in the Class Environmental Assessment (EA) process. It was developed with technical experts and in consultation with Indigenous communities, community members and elected officials. We welcome public input on the Draft ESR. Details on how to provide feedback are at the end of this document.

HydroOne.com/StClair

This new transmission line will support local food supply and security, economic development and job creation in our region. This critical project will help ensure residents in St. Clair have reliable power for years to come.

- Jeff Agar, Mayor, St. Clair Township



We welcome comments on the Draft ESR during the 30-day comment period, from November 6, 2023 to December 7, 2023. View the full Draft report and provide your input today.



About the St. Clair Transmission Line Project

The St. Clair Transmission Line is a proposed new transmission line between St. Clair Township and the Municipality of Chatham-Kent. The project also involves an upgrade of the Wallaceburg Transformer Station, which will increase the transmission reliability and resiliency for the Wallaceburg area. After a thorough evaluation of five route options, Hydro One selected the preferred route for the project in June 2023. Since 80 per cent of this route uses existing transmission corridors and upgrades an existing transmission line, it has the least effect on the values of importance to Indigenous communities, as well as to the natural environment, agricultural lands and operations.



Working in partnership with First Nations

As part of the pathway towards Reconciliation, Hydro One has offered five First Nations in the region 50 per cent equity ownership in the transmission line component of the project and is committed to working to advance the project in partnership.



Hydro One Networks Inc. | St. Clair Transmission Line Project



Benefits to Southwestern Ontario

As the population grows in southwestern Ontario, safe and reliable power is needed to improve reliability for homes and businesses, secure and diversify supply, and create opportunities for industries to locate in the area. Demand for electricity in the region is expected to quadruple by 2035, according to the Independent Electricity System Operator (IESO).

The St. Clair Transmission Line project is part of a network of electricity infrastructure projects that will support the regions' economic growth. The line is expected to be in service in 2028 and will bring a number of benefits to the region.

Clean electricity

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

Local food supply

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

Economic growth

The new line will unlock economic potential and job creation in the region. Along with powering homes and businesses, it will support key areas, including electric vehicle technology and the agriculture sector.

By the numbers



80% uses existing transmission corridors

E B

450 megawatts*

of added capacity – enough to approximately power the city of London

140

construction workers employed

The impact of this new line, once built, will be remarkable for the region. We continue to work very closely with Hydro One and offer feedback from our members, which is critical as the project continues to move ahead.

- Louis Roesch, Director, Essex and Kent, Ontario Federation of Agriculture (OFA)



About the Class Environmental Assessment

The Class EA is a streamlined planning process for transmission projects that have a predictable range of environmental effects and have realistic measures that can be implemented to limit them. The Draft ESR, and public input on it, is an important part of the process.

HOW THE PROCESS WORKS



The Draft ESR describes:

- The existing conditions in the area surrounding the project
- The consultations we have undertaken with the public, including Indigenous communities and governments
- The process to evaluate route options and select the preferred one
- Predicts and assesses potential natural environment and socio-economic effects
- Identifies the actions we will take to minimize and avoid potential negative project effects

Ongoing Engagement

We continue to engage with Indigenous communities, municipalities, government agencies, residents and stakeholders by creating a number of opportunities to share input, questions and concerns.



83,000+ interactions with the community in person and via phone and email



Approximately 9,000 participants across 9 open houses



45 notices

including door knocking, registered mail sent to directly affected property owners, newspaper, radio, social media and phone



Directly heard from more than 850 community members

What we've heard

- Consider effects to agricultural lands and operations
- Maximize the use of existing transmission corridors
- Consider species at risk and ecological restoration areas
- Minimize effects to homes
- Consider construction practices and local groundwater effects



Hydro One's team conducts a number of on-the-ground field studies to truly understand the areas where our projects will take shape. As part of the Class EA for the St. Clair Transmission Line project, we have conducted habitat and wildlife surveys, including of birds, fish and amphibians, as well as studies of archaeological and built heritage resources, among other studies.

Southwestern Ontario is growing, and we understand this network of electricity infrastructure projects is critical to help meet the energy demand that our region will experience over the next several years. We will continue to work with Hydro One throughout the engagement process to ensure clean and reliable energy will continue to power southwestern Ontario for years to come.

– Darrin Canniff, Mayor, Municipality of Chatham-Kent





Summary: What We Found

Overall, the report concludes that potential effects can be effectively managed using industry standard environmental mitigation measures. We will take specific actions to limit and avoid any potential effects on agriculture, plants and wildlife, water, quality of life and more.

Key actions Hydro One takes

Working with property owners

We're committed to working with homeowners to understand the unique features of their property. We will work closely with property owners where the project traverses their property to find solutions.

Biodiversity Initiative

Hydro One will conduct a Biodiversity Initiative to offset the loss or long-term change to habitats that may occur as a result of this 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.

Enhancing community benefits

We work with municipalities, local communities and stakeholders to find opportunities to contribute to the areas around our projects in a positive way, recognizing that community benefits can be varied and diverse.

The Draft ESR also outlines that:

- The project is helping to meet current and future electricity needs in Ontario
- There is a potential for increased economic opportunity in the region
- The project benefits outweigh its impacts



Several Hydro One initiatives conserve and protect Ontario's biodiversity, such as planting to create habitat for pollinators, creating nesting platforms for birds and working with local organizations to restore wetlands.

Discover more at HydroOne.com/StClair





Highlights: Indigenous Culture, Values and Resources

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

Indigenous Culture, Values and Land Use

What we found

The project study area is located within the traditional territory of several Indigenous communities. Communities were engaged early in the planning process and have been providing meaningful early inputs to ensure their perspectives and concerns are articulated in the ESR. Stewardship of the land and protection of species at risk and wildlife are culturally significant and important to these communities. Additionally, the protection of cultural resources and recognition of Indigenous historical land uses are also part of our continued engagement.

What we'll do

- Provide opportunities for Indigenous communities to monitor all archaeological field surveys and review reports
- Share Environmental Management Plans with communities for their review and input
- Work with our construction contractor and identify ways to safely involve Indigenous partner communities in environmental monitoring during construction
- Involve interested communities in our Biodiversity Initiative and explore how Traditional Ecological Knowledge can be applied
- Continue to engage with Indigenous communities throughout the life of the project to ensure their concerns are understood and solutions are collaborative

Key takeaway

We are committed to our relationships with Indigenous communities and understand that their early and on-going participation and collaboration throughout the life of the project is important. Due to the rich history of the lands in southwestern Ontario, Hydro One has retained licensed archaeologists to conduct archaeological assessments for the new transmission line corridor. We are currently conducting archaeological field surveys on areas with identified archaeological potential, to ensure that any archaeological resources found are appropriately managed and protected.

Explore more about what we studied and found in <u>Section 7.8</u> of the ESR.



Highlights: Natural Environment

This section highlights how we will limit or avoid significant effects to the natural environment in the project area, including its 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. Based on the work done to date, the project is not expected to significantly affect water resources. We are continuing to engage with local conservation authorities and community groups on this as the detailed design progresses.

What we'll do

- Engage with local conservation authorities and community groups during the design phase of the project
- Do work near water banks during dry or frozen conditions, to the extent practical
- Use erosion and sediment controls like blankets silt socks and coir mats, which will be inspected and repaired as necessary following every significant rainfall
- Develop a construction management plan that uses techniques like passing discharge water through a filter bag or drum

Key takeaway

With the measures described here, and based on the work done to date, the project is not expected to have any significant net effects on surface water quality, groundwater, watercourses or aquatic features. We will continue to consult and engage with local conservation authorities and community groups during the design phase of the project.

- Restore any disturbed areas near watercourses, adjacent wetlands or sensitive areas as soon as practical
- Maintain an Emergency Response Plan to deal with any spills and have cleanup materials and equipment ready at all times
- Refuel vehicles and equipment 30m away, where practical, from sensitive areas, such as source water protection areas and wetlands, and use spill trays
- Store fuels, chemicals, lubricants or other harmful substances on ground level in properly contained storage areas, and regularly inspect equipment for leaks

Local community participation is integral to infrastructure development, and we will integrate feedback directly into the design, development, construction, operations and maintenance of this project as Hydro One continues to invest in Southwest Ontario, to ensure energy is available when and where it is needed.

 Sonny Karunakaran, Vice President, Strategic Projects and Partnerships, Hydro One

Explore more about what we studied and found in Section 7.7 of the ESR.



Atmospheric Environment (Air Quality, Emissions and Noise)

What we found

Dust and other emissions during a project like this can be a nuisance for those living in the area, and there is a potential for increased noise and vibration, including because of implosive splicing. However, we've identified several measures to limit or avoid these effects.

What we'll do

- Cover or otherwise contain loose construction materials being transported that could release airborne particles
- Minimize dust by using non-chloride dust suppressants and techniques like on-site watering, especially in work areas that might be exposed to windy conditions
- Maintain vehicles and equipment to minimize excessive exhaust, minimize idling and use GPS to find the best routes that reduce fossil fuel emissions
- Complete construction in accordance with local noise control by-laws
- Conduct noise modelling for the Wallaceburg Transformer Station and if necessary, take measures such as using noise barriers or other engineered solutions

Key takeaway

Hydro One uses Implosive splicing, a process to join pieces of wire together. It's a commonly used method as it results in very strong and reliable connections. While it creates noise, it will happen at predetermined times and is not expected to last very long. We will take steps to ensure landowners are aware of upcoming work. This transmission line is not a power generation project. That means it won't be emitting greenhouse gases, and those coming from construction vehicles will be minimal.

Explore more about what we studied and found in <u>Section 7.7.2</u> of the ESR.





What we found

Construction activities could disturb wildlife, including species at risk, and the removal of trees could reduce the 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. We've developed multiple mitigation measures to address this. In addition, some construction will take place on or near provincially significant woodlands, wetlands and valleylands. We've identified several ways these possible effects from the project can be reduced.

What we'll do

- Keep trees and plants that will not affect construction or line clearances, where practical
- Replace hedgerows and windbreaks (lines of trees and plants around agricultural lands) with compatible vegetation after construction, in consultation with the landowner
- Remove vegetation outside of migratory bird breeding season and bat active seasons where practical
- Leave root systems intact to maintain soil stability, where practical
- Install silt fences and other barriers to protect sensitive features

- Cross fish and aquatic habitat areas during low flow conditions where practical
- Keep stream bank vegetation where practical and store materials away from water features
- Review potential wildlife habitats and identify locations to put up potential visual mitigation measures, like bird diverters
- Restore any woodlands that have been disturbed with compatible vegetation once construction is complete
- Undertake a Biodiversity Initiative to offset any habitat loss that can't be avoided or mitigated

Key takeaway

Most wildlife species with the project area are used to human activities, and they can relocate temporarily to other nearby habitat until construction is over. Wildlife such as birds and snakes will be taken into account in the design of tower locations, and wetlands will be restored to pre-construction draining patterns once construction is over. Along with bats and migratory birds, wildlife and aquatic life in the area includes the Blanding Turtle.

Explore more about what we studied and found in Section 7.7.8 of the ESR.



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.

Agricultural Lands, Crops and Soil

What we found

Construction activities will require temporarily removing some crops and could compact or affect soil quality. We will work to limit or avoid these effects. While most effects will be temporary, there will be some permanent loss of agricultural land for production of crops within the new towers' physical footprint. We will work with landowners to compensate those losses.

What we'll do

- Aim to schedule construction outside of heavy growing seasons and extreme wet periods, and strip soil under generally dry conditions, where practical
- Locate towers along property lines wherever practical so it doesn't impede on agricultural spaces
- Stockpile topsoil and subsoils separately and salvage as much as possible for replacement and reuse where stripping is necessary
- Establish a weed control plan in collaboration with landowners that will be managed by a professional agrologist during construction
- Compensate all lands losing long-term production of crops in accordance with Hydro One's crop loss/crop lands out of production policies
- Contact landowners to determine if organic or Identity Preserved (IP) operations are present, which may require additional considerations during construction planning

Key takeaway

Agricultural operations can continue with the transmission line. We will take steps to avoid disturbances to farmland and the preferred route will limit net new structures built on fields. Some farmers have raised concerns about the potential for overhead transmission lines to interfere with automated or GPS-guided farm equipment. While we do not anticipate effects to communication systems in farm equipment, we will work with concerned farmers to collect information on the systems of concern and contact manufacturers of these systems 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 ESR.





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 and maintenance activities have the potential to interfere with the infrastructure used to drain agricultural fields (such as tile drains), which may result in poor drainage which in turn adversely affects agricultural operations. We have identified a number of avoidance, mitigation and restoration measures that we can employ to address these concerns.

What we'll do

- Work with landowners to locate, identify and avoid or protect tile drains, to the extent practical
- Use constructed access (e.g., wooden matting or geotextile and crushed rock) to build temporary access roads and work pads during construction, which will help protect tile drains

Key takeaway

Measures to avoid and mitigate disturbance to tile drains will be undertaken during construction and in consultation with landowners, and if any tile drains are damaged during construction they will be repaired by a licensed tile drainage contractor. Agriculture is an important part of southwestern Ontario's regional economy. Most agricultural land use in southwestern Ontario is designated for production of cash crops and agricultural greenhouses.

Explore more about what we studied and found in <u>Section 7.1</u> of the ESR.





What we found

Construction and maintenance activities will happen near pastures and grazing fields. Planned implosive splicing during the project will create noise that may startle livestock, potentially causing stress, injury, or loss. We will work with farmers to provide advanced notice to minimize the effects.

What we'll do

- Provide advance notice to landowners about upcoming work so they can move or contain livestock. Field crews will also be made aware of livestock in the area to ensure they secure gates and clean up debris so livestock doesn't ingest it
- Develop a Blast Communication Plan that includes notifying farmers, residents and emergency authorities within 1.6 km of expected activities one week in advance of implosive splicing work, posting signs on all roadways near a blasting area and all making sure all materials are stored, secured and detonated properly
- Protect livestock by setting up fencing that keeps them from entering a work area, using existing fencing and gates as required and leaving them "as is" once construction is over

Key takeaway

Construction activities that could affect livestock will be temporary. We will notify farmers in advance of upcoming work where practical. Most farms and rural operations in Ontario are Hydro One customers. We proudly provide a reliable supply of power to small dairy operations, mid-sized greenhouses and large-scale agriculture facilities.

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





Land Use, Business Operations and Local Roads

What we found

Some construction work will be required in industrial areas like the western Township of St. Clair. The project crosses multiple types of current land use designations and will support most types of future land use. There is the potential for increased traffic and some temporary closures on local and regional roads. We will take steps to limit or avoid the effects on local communities.

What we'll do

- Maintain contact with business owners and make arrangements for alternate access prior to construction, if necessary
- Avoid peak/busy seasons to the extent practical
- Complete pre and post-construction road surveys to document effects on local roads and share findings with municipal staff before construction work begins
- Clean or scrape roads to remove mud and debris as needed
- Restore any roads that are affected to their previous condition

- Develop a Traffic Control Plan as needed and share it with local municipalities, as necessary
- Use rider poles, boom-tipped riders or other protective measures for stringing conductors, in an effort to avoid road closures, to the extent practical
- Issue local ads and put up road signage when construction work is planned to directly affect local traffic
- Assign traffic control officers as necessary

Key takeaway

Any effects on local businesses, roads and traffic are expected to be temporary and we will take steps to limit the effects. The project will not impede future development of adjacent lands, and there will be opportunities for compatible uses to be developed.

Explore more about what we studied and found in <u>Section 7.5</u> of the ESR.





Electric and Magnetic Fields (EMF)

What we found

There will be a small increase in EMF in proximity to the transmission line or within the right of way once the transmission line is energized but these remain significantly lower than the general public exposure limits.

What we'll do

• Design and construct the project in accordance with appropriate regulatory requirements

Key takeaway

No significant net effects are predicted.

Hydro One takes safety very seriously and we design and operate our equipment in accordance with all regulatory requirements. Health Canada has found no conclusive evidence of adverse effects caused by 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.

Explore more about what we studied and found in <u>Section 7.5.5</u> of the ESR.





Archaeological and Cultural Heritage Resources

What we found

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

What we'll do

- Invite Indigenous communities to attend archaeological field surveys to observe the work and any findings
- Cease all activities and engage a licensed archaeologist in the event archaeological material is encountered during construction
- Conduct additional Built and Cultural Heritage studies on features with known or potential Cultural Heritage Value or Interest (CHVI)

Key takeaway

Additional archaeological and cultural heritage studies will be conducted where known or potential resources may be affected by the project, and the results and findings of these studies will inform the need for further assessments or other mitigation measures that may need to be implemented during construction. Areas with potential for archaeological resources (as identified in the Stage 1 Archaeological Assessment conducted for the project) will undergo a Stage 2 Archaeological Assessment field survey to identify if any artifacts are present, and if further studies (e.g., Stage 3 Archaeological Assessment) are required.

Explore more about what we studied and found in <u>Section 7.3</u> of the ESR.





What we found

Tourism and recreational resources, such as trails, could potentially be disturbed but the effects will be short term. There may also be potential effects to people and places with views of the project.

What we'll do

- Provide advanced notice to nearby residences, farms, landowners and commercial operations and put up signage related to construction disturbances
- Avoid disturbing existing recreational resources, to the extent practical, by timing work to avoid seasons of heavier use
- Use safety precautions to protect the public, such as anti-climbing devices and appropriate signage, where necessary
- Consider visibility to nearby people and places in the design the transmission line (e.g., placement of structure locations)
- Work with local municipalities to identify community benefit opportunities to enhance the broader landscape

Key takeaway

No significant net effects to recreation in the area around the project are predicted. We will take steps to limit the possible effects. We work with municipalities, local communities and stakeholders to find opportunities to contribute to the areas around our projects in a positive way, recognizing that community benefits can be varied and diverse.

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



Have Your Say

We want to know

- Do you have additional suggestions for avoiding or minimizing effects that you want to see us take?
- Do you have questions about the overall assessment or specific parts of the assessment?
- Do you have any other comments about the Draft ESR that you want us to consider?

How to provide comments

The Draft ESR is available for review and comment from **November 6, 2023** to **December 7, 2023**.

Anyone wishing to provide comments must do so by **December 7, 2023** at 4:30 pm to:

Paul Dalmazzi,

Senior Environmental Specialist, Hydro One 483 Bay St., 14th Floor Toronto, ON M5G 2P5

Comments can also be submitted to **1.877.345.6799** or **Community.Relations@HydroOne.com**

Where to find the Draft ESR

Online HydroOne.com/StClair

In person

Electronic and hard copies are available at the following locations:

- Corunna Library 417 Lyndoch Street, Corunna
- Chatham-Kent Public Library 120 Queen Street, Chatham
- Wallaceburg Municipal Office 786 Dufferin Avenue, Wallaceburg





We welcome your feedback.

View the full Draft Environmental Study Report and provide your input today. **HydroOne.com/StClair** If you have any questions or need further information about this project, contact **Community.Relations@HydroOne.com** or **1-877-345-6799**

