

# London Lines Replacement Project Virtual Open House



## Welcome

- Press the next button to navigate to the next slide at any time.
- To return to the previous slide, press the previous button.
- You can mute the audio at any time by pressing the speaker icon.
- The presentation slides as well as the audio script are available for download (see the Resources tab in the top right corner).
- Questions and comments can be submitted using the questionnaire (see the Resources tab).
- If you would like to receive future Project updates, please complete the "Contact Information" section of the questionnaire.

## Our commitment

- Enbridge is committed to involving community members
- We will provide up-to-date information in an open, honest and respectful manner, and will carefully consider your input.
- Enbridge provides safe and reliable delivery of natural gas to more than 3.7 million residential, commercial, and industrial customers across Ontario.
- Enbridge is committed to environmental stewardship and conducts all of its operations in an environmentally responsible manner.



# London Lines Replacement Project Virtual Open House



## Project Overview

- Approximately 75 kilometers (km) of 8-inch, high pressure, steel, natural gas pipeline, and a secondary 10.5 km, 8-inch pipeline to connect the Town of Strathroy.
- Will replace the two current pipelines known collectively as the London Lines.
- Start within the Township of Dawn-Euphemia and will continue through the Municipality of Southwest Middlesex and will end at two locations: within the Municipality of Middlesex Centre; and at a proposed new station in the Municipality of Strathroy-Caradoc.
- If approved by the Ontario Energy Board (OEB), construction of the proposed pipeline is planned to begin as early as spring 2021 and be in service by the end of 2021.



# London Lines Replacement Project Virtual Open House

## Purpose of the Virtual Open House

- Provide a safe alternative to an in-person meeting due to current social distancing requirements set out by the Province of Ontario and the Government of Canada.
- Consult with Indigenous communities, the public, and regulatory authorities regarding the proposed Preferred Route, and potential impacts.
- Provide an opportunity for these individuals and any affected landowners and the general public to review the proposed Project, and to ask any questions and/or provide comments to representatives from Enbridge and Stantec.



# London Lines Replacement Project Virtual Open House



## Environmental Study Process

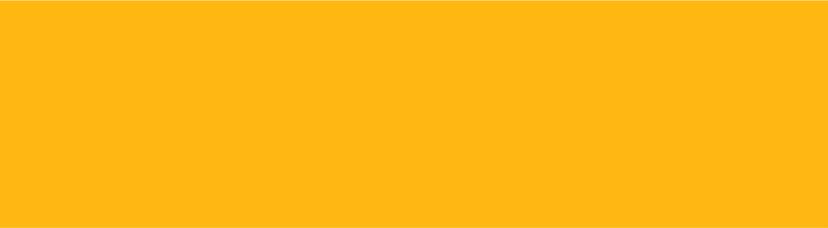
The environmental study and Environmental Report will be completed as per the OEB's "*Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (2016)*."

The study will:

- Undertake consultation to understand the views of interested and potentially affected parties.
- Consult with Indigenous communities to understand interests and potential impacts.
- Be conducted during the earliest phase of the Project.
- Identify potential impacts of the Project.
- Develop environmental mitigation and protective measures to avoid or minimize potential impacts.
- Develop an appropriate environmental inspection, monitoring and follow-up program.



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## Ontario Energy Board (OEB) Review and Approval Process

The application to the OEB will include information on the Project including:

- The need for the Project
- Environmental Report and mitigation measures
- Facility alternatives
- Project costs and economics
- Pipeline design and construction
- Land requirements
- Consultation with Indigenous Communities

The OEB will then hold a public hearing to review the Project.

If the OEB determines that the Project is in the public interest it will approve construction of the Project.

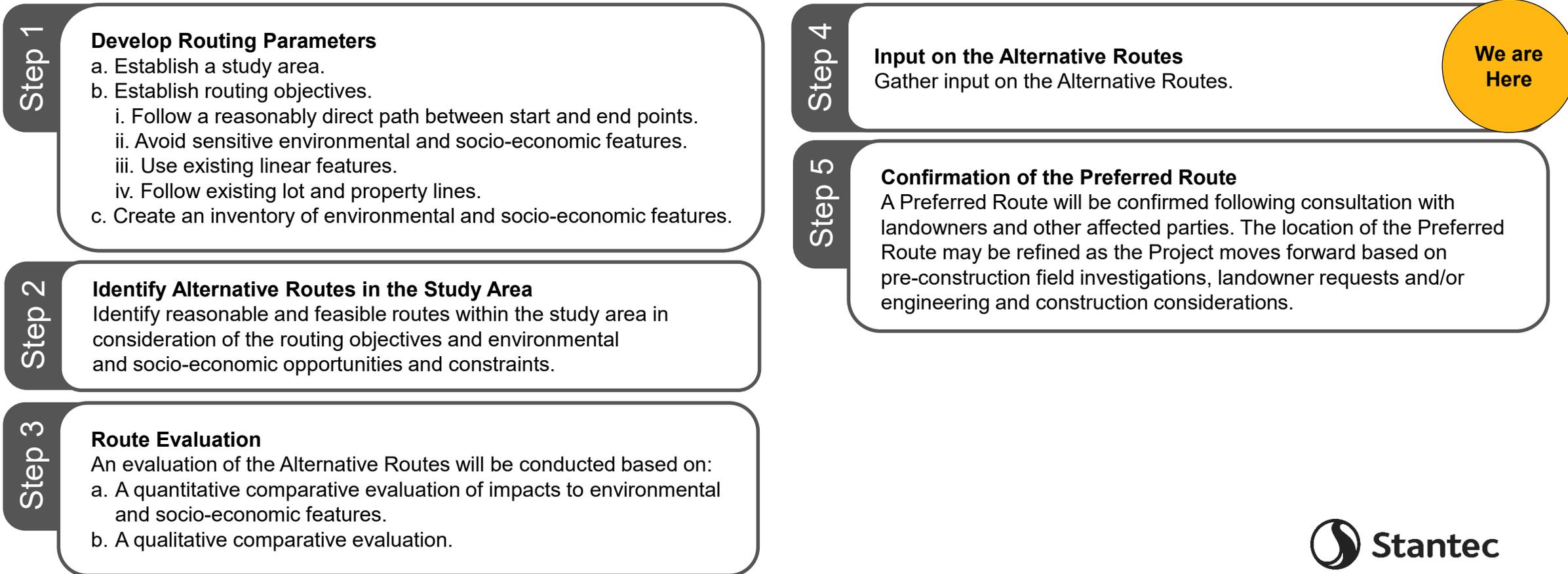
Additional information about the  
OEB process can be found at:  
[www.ontarioenergyboard.ca](http://www.ontarioenergyboard.ca)



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## Preferred Route selection process

The Preferred Route for the proposed pipeline will be selected through a five-step process.



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## Route Evaluation Methodology

- Study Area pipeline routing constraints include natural heritage features, slope, topography, and socio-economic features and landscapes.
- A GIS routing exercise was undertaken that examined all mapped routing constraints and opportunities to generate alternative segments.
- The alternative segments follow existing linear infrastructure such as road easements and avoid, to the extent possible, existing environmental and socio-economic features.

An interactive map that shows the entire proposed Route and the alternative segments can be accessed at:

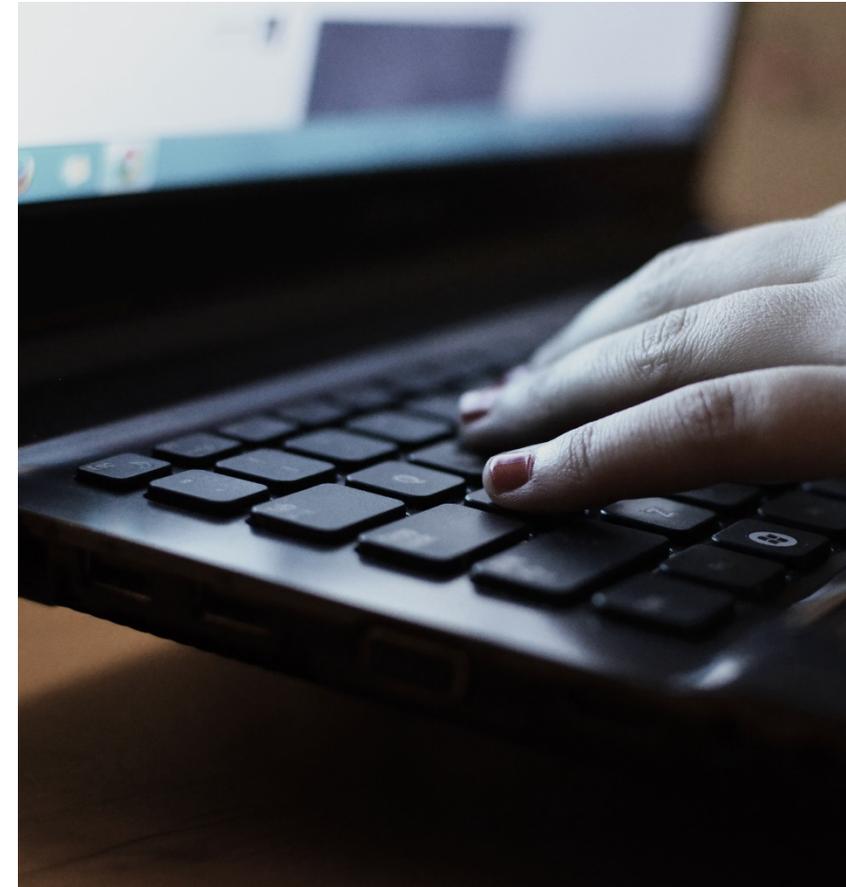
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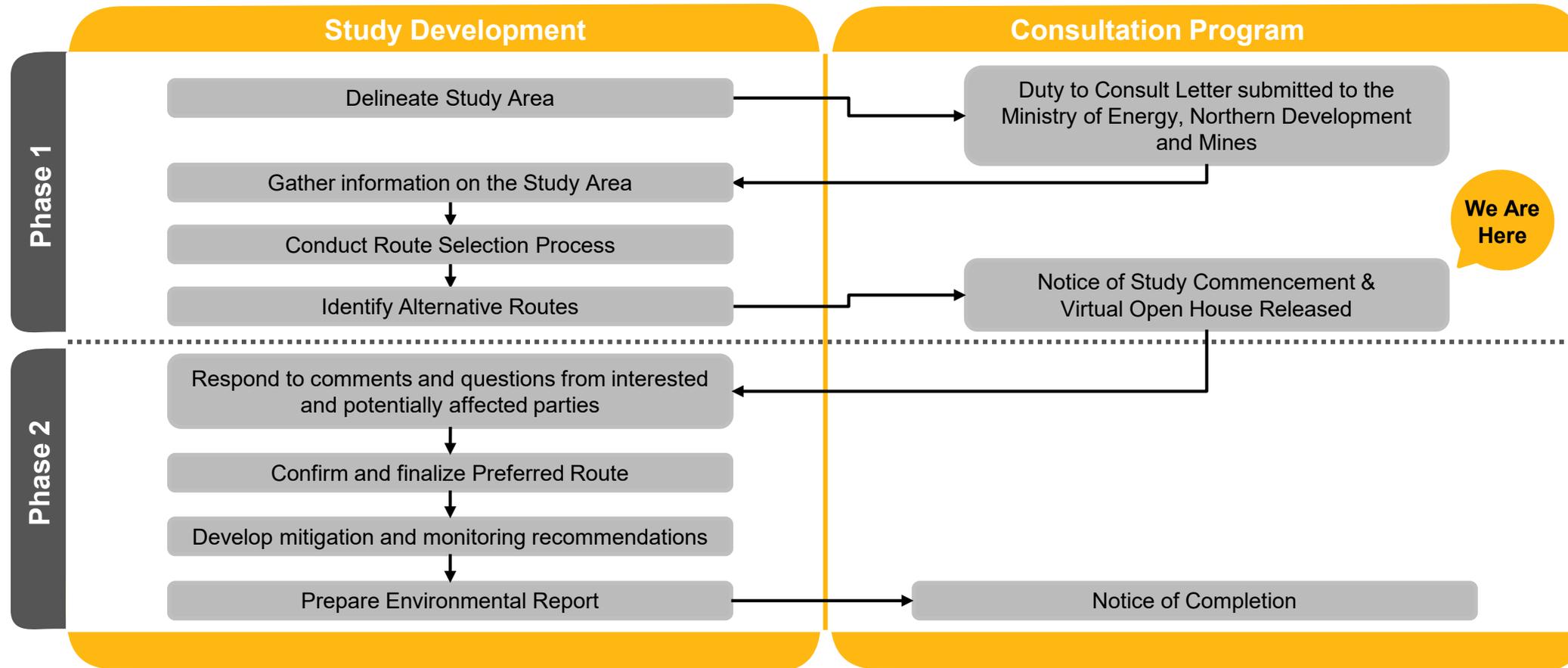
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## Consultation

- Consultation is a key component of the Environmental Report.
- The consultation program helps identify and address stakeholder concerns and issues, provides information about the Project to the stakeholders, and allow for participation in the Project review and development process.
- Input will be used to help finalize the preferred pipeline route and mitigation plans for the project.
- Once the Leave-to-Construct (LTC) application is made to the OEB, any party with an interest in the Project, including members of the public, can participate in the process.



# London Lines Replacement Project Virtual Open House



## Environmental Study Process

# London Lines Replacement Project

## Virtual Open House



### Indigenous People Policy

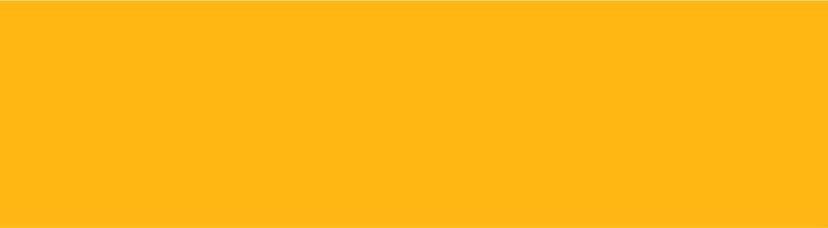
Enbridge recognizes the diversity of Indigenous peoples who live where we work and operate. We understand from history the destructive impacts on the social and economic wellbeing of Indigenous Peoples. Enbridge recognizes and realizes the importance of reconciliation between Indigenous communities and the broader society. Positive relationships with Indigenous peoples, based on mutual respect and focused on achieving common goals, will create positive outcomes for Indigenous communities. Enbridge commits to pursue sustainable relationships with Indigenous Nations and groups in proximity to where Enbridge conducts business. To achieve this, Enbridge will govern itself by the following principles:

- We recognize the legal and constitutional rights possessed by Indigenous peoples, and the importance of the relationship between Indigenous Peoples and their traditional lands and resources. We commit to working with Indigenous communities in a manner that recognizes and respects those legal and constitutional rights and the traditional lands and resources to which they apply. We commit to ensuring that our projects and operations are carried out in an environmentally responsible manner.
- We understand the importance of the United Nations Declaration on the Rights of Indigenous Peoples in the context of existing Canadian law and the commitments that the government has made to protecting the rights of Indigenous Peoples.
- We engage in forthright and sincere consultation with Indigenous Peoples about Enbridge's projects and operations through processes that seek to achieve early and meaningful engagement. Indigenous engagement help define our projects that may occur on lands traditionally occupied by Indigenous Peoples.
- We commit to working with Indigenous Peoples to achieve benefits for them resulting from Enbridge's projects and operations, including opportunities in training and education, employment, procurement, business development, and community development.
- We foster understanding of the history and culture of Indigenous Peoples among Enbridge's employees and contractors, in order to create better relationships between Enbridge and Indigenous communities.

This commitment is a shared responsibility involving Enbridge and its affiliates, employees and contractors. We will conduct business in a manner that reflects the above principles. Enbridge will provide ongoing leadership and resources to effectively implement the above principles, including the development of implementation strategies and specific action plans. Enbridge commits to periodically review this policy so that it remains relevant and respects Indigenous culture and varied traditions.



# London Lines Replacement Project Virtual Open House



## Environment, Health and Safety Policy

### Our commitment

- Enbridge is committed to protecting the health and safety of all individuals affected by our activities.
- Enbridge will provide a safe and healthy working environment and will not compromise the health and safety of any individual.
- Our goal is to have no incidents and mitigate impacts on the environment by working with our stakeholders, peers and others to promote responsible environmental practices and continuous improvement.
- Enbridge is committed to environmental protection and stewardship and we recognize that pollution prevention, biodiversity and resource conservation are key to a sustainable environment.
- All employees are responsible and accountable for contributing to a safe working environment, for fostering safe working attitudes, and for operating in an environmentally responsible manner.



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## Access and Land Requirements

- Once a preferred route is selected, an Enbridge Land Agent will begin discussions with landowners for the appropriate land rights necessary for the construction, decommission and/or removal of the pipeline.
- Enbridge is committed to working with all directly affected landowners in anticipation of acquiring early access agreements in order to gather essential information, including but not limited to, land survey data, environmental, archaeological and property site features, along with negotiating the necessary land rights.
- These land rights will consist of permanent easements and/or temporary land rights. The temporary land rights are only required during project construction activities.
- Enbridge will ensure that a Land Agent is available to each landowner during all pipeline construction activities.
- The Land Agent will keep all landowners informed of the progress of the project and assist with any concerns that may arise as a result of the construction activities.



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## Agricultural Soils

Enbridge has established and tested measures to preserve the integrity of agricultural soils throughout the construction phase:

- A third-party soils specialist will determine topsoil depth prior to stripping and supervise activities so the proper depth of topsoil is removed and replaced.
- Topsoil will be stripped from the right-of-way and other work areas and stockpiled along the right-of-way. A separation will be maintained between topsoil and subsoil.
- Enbridge Gas will implement a wet soil shutdown protocol on agricultural lands to minimize soil structure damage.
- The subsoil on the stripped portion of the right-of-way will be chisel ploughed or sub-soiled during cleanup activities to alleviate compaction.
- Any agricultural drainage systems impacted by construction will be repaired.
- Enbridge Gas will develop and implement a sampling program on agricultural easements along the pipeline route for potential pests and/or diseases that are known to the area, where appropriate.
- The entire outside boundaries of the work space necessary for construction of the project will be staked at regular intervals.
- A post-construction cover crop program will be available to landowners.



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## Maintaining Agricultural Drainage Systems

- Landowners will be contacted prior to construction to confirm the location and type of existing drains. Any future drainage plans will also be discussed with the landowner.
- Field tile will be temporarily re-routed during pre-construction activities where required to ensure proper drainage during construction.
- Damaged and severed drains will be repaired following construction. After repair and prior to backfilling, landowners will be invited to inspect and approve the repair. Any on-going field tile issues resulting from pipeline construction will be addressed by Enbridge Gas as required.



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## Socio-economic Features

The project will be constructed through road right of way, private business areas, agricultural and residential land, along with land regulated by both Canadian Pacific and Canadian National Railways, and land regulated by Hydro One, Lower Thames Valley Conservation Authority, St. Clair Region Conservation Authority, and Upper Thames River Conservation Authority.

### Potential Effects

- Temporary increases in noise, dust and air emissions.
- Increased construction traffic volumes.
- Temporary impairment of the use and enjoyment of property.
- Vegetation clearing along the pipeline easement.

## Example Mitigation Measures

- Provide access across the construction area.
- Restrict construction to daylight hours and adhere to applicable noise by-laws.
- Develop and implement a Traffic Control Plan.
- Place fencing at appropriate locations for safety.
- Implement a water well monitoring program.
- Making contact information for a designated Enbridge Gas representative available prior to and throughout construction.
- Dust control measures.
- Re-vegetation of cleared areas (seeding/planting).



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## Aquatic Resources

Enbridge understands the importance of protecting wildlife during construction and therefore will implement recognized mitigation measures to minimize possible environmental effects.

### Potential Effects

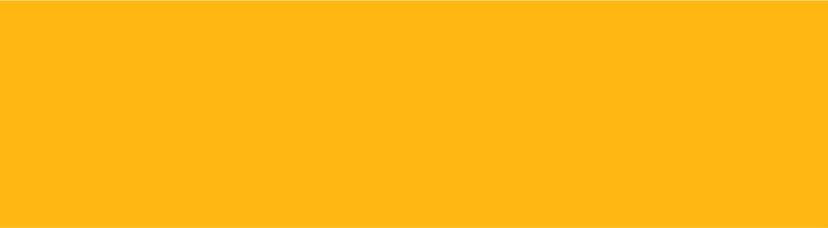
- Disruption and alteration to aquatic species and habitat and/or nuisance effects.
- Increased erosion, sedimentation, and turbidity resulting from removal of vegetation.

### Example Mitigation Measures

- Conduct surveys of waterbodies.
- Obtain all agency permits and approvals.
- Limit in-channel construction, where possible, and conform to fish timing window guidelines.
- For in-channel construction, protect aquatic species and manage sedimentation and turbidity.
- Restore and seed areas to establish habitat and reduce erosion.
- Replant vegetation along waterways.



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## Cultural Heritage Resources

During the course of construction, cultural heritage features such as archaeological finds, buildings, fences and landscapes may be encountered. Detailed field surveys will be conducted by independent, third-party archaeologists and cultural heritage professionals.

### Potential Effects

- Damage or destruction of archaeological, paleontological or historical resources.

### Example Mitigation Measures

- Archaeological assessment of the construction right-of-way, with review and comment from the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).
- Cultural heritage assessment (for built heritage features and cultural heritage landscapes) of the construction right-of-way, with review and comment from MHSTCI.
- Reporting of any previously unknown archaeological, paleontological or historical resources uncovered, or suspected of being uncovered, during excavation.



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## Terrestrial Resources

During the course of construction, natural heritage features such as wildlife habitat and vegetated/wooded areas will need to be crossed.

### Potential Effects

- Damage or removal of vegetation and wildlife habitat adjacent to the construction area.
- Disturbance and/or mortality to local wildlife.

### Example Mitigation Measures

- Conduct surveys (including Species at Risk surveys) in advance of construction to determine opportunities for wildlife habitat to exist.
- Clearly mark the construction area to avoid accidental damage.
- Restore and seed areas to establish habitat and reduce erosion.
- Secure any necessary permits and follow any conditions of approval.



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## Pipeline Design

The high-grade steel pipeline is designed to meet and/or exceed the regulations of the Canadian Standards Association (Z662 Oil and Gas Pipeline Systems) and the applicable regulations of the Technical Standards & Safety Association (TSSA).

## Pipeline Safety and Integrity

We take many steps to ensure safe, reliable operation of our network of natural gas pipelines, such as:

- Design, construct, and test our pipelines to meet or exceed requirements set by industry standards and regulatory authorities,
- Continuously monitor the entire network, and
- Perform regular field surveys to detect leaks and confirm corrosion prevention methods are working as intended.



# London Lines Replacement Project

## Virtual Open House



### Pipeline Construction

- 1. Site Preparation:** The first crew to enter the construction site is typically the survey and staking crew who delineate the boundaries of the construction area. When required safety fence is installed at the edge of the construction area where public safety considerations are necessary, and aspects of the traffic management plan are implemented (i.e., signs, vehicle access).
- 2. Clearing:** The clearing crew clears brush and other vegetation including the temporary work space to permit construction of the pipeline.
- 3. Grading and Stripping:** Next, the grading crew prepares the construction area for access by construction equipment. Existing landscaping is also removed, and dewatering undertaken, where necessary.
- 4. Stringing:** The stringing crew lays pipe on wooden skids or boxes adjacent to the trench area.
- 5. Trenching:** Once the construction area has been prepared, a hydraulic hoe will excavate the trench which will then be prepared for the installation of the new pipeline.
- 6. Pipe Fabrication and Lowering:** Next, the pipe is bent as required and the welding crew welds the pipe into continuous lengths. The pipe welds are x-rayed and coated then inspected before the pipeline is lowered into the trench. Crews also install pipes under obstacles such as roads or watercourses by directional drilling. The welds are global positioning system located with locations identified on the weld map along with the identification of each pipe section for future identification.
- 7. Hydrostatic Test:** The pipeline is tested hydrostatically. Water is drawn from a suitable local source based on discussions with the appropriate authorities and will be disposed of appropriately (e.g., discharged to land or sanitary sewer, or removed by an Enbridge approved waste disposal provider). Upon completion of the hydrostatic testing, the pipeline is dried, purged of air and prepared for delivery of the product.
- 8. Backfilling:** The backfilling crew backfills the originally excavated subsoil over the pipe in the trench. In shallow water table areas, the pipeline may be weighted to provide negative buoyancy. Surplus backfill material will be removed from the construction area. The trench line will be crowned where necessary to allow for soil settlement.
- 9. Clean-Up and Restoration:** The clean-up crew is responsible for the restoration of the construction area and other work areas. In natural areas the clean-up crew undertakes restoration including re-seeding of the area and restoring ditch banks, watercourse crossings and wetland areas, and removing erosion and sediment controls. In developed areas the clean-up crew undertakes landscaping plans developed for site restoration.

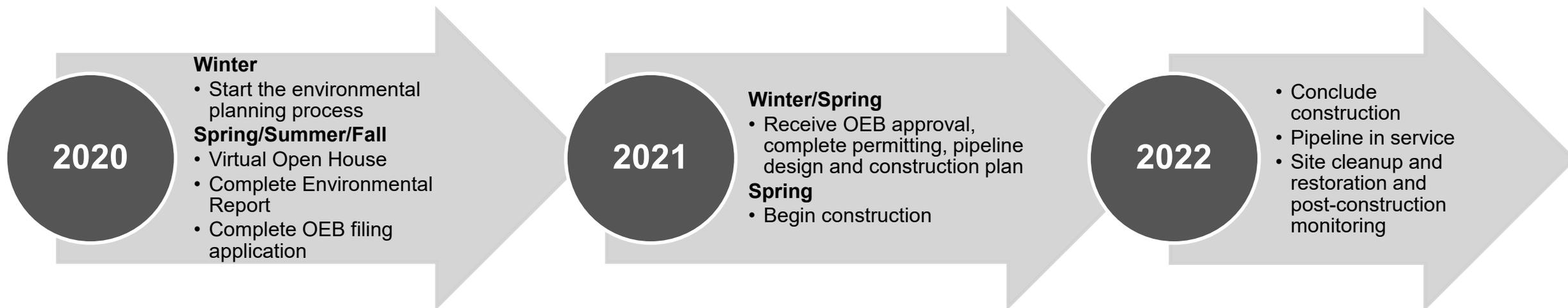


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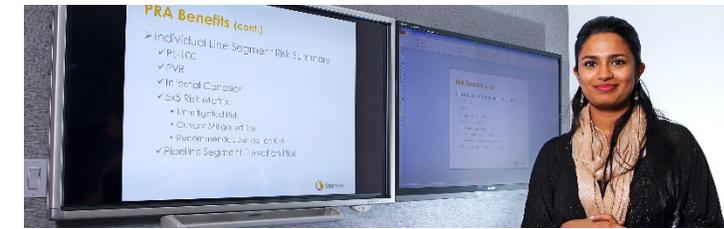


## Next Steps

After this Virtual Open House, we intend to pursue the following schedule of activities:



# London Lines Replacement Project Virtual Open House



## Thank-you!

On behalf of the Project team, thank-you for listening to the Virtual Open House presentation. Please complete the Questionnaire, located in the Resources Tab.

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For more information about the proposed project, please visit our project website at:

<https://www.enbridgegas.com/About-Us> under "Projects"

