Virtual Open House: Environmental Project Report Addendum



February 17, 2022

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Open House Series

MEETING	TOPICS	DATE
EPR Virtual Open House #1	Overview of the Environmental Project Report Addendum, summary of findings	February 17
EPR Virtual Open House #2	Tunnelled segment Focus topics include: Noise and vibration, natural environment, cultural heritage, and soil and groundwater	February 23
EPR Virtual Open House #3	Surface segment Focus topics include: Noise and vibration, natural environment, and air quality	March 2
EPR Virtual Open House #4	Engagement overview	March 10







* Preliminary dates and subject to necessary approvals

What is an Environmental Assessment?

- Environmental Assessment (EA) is a process to identify the potential environmental effects of a proposed project. This process happens before construction begins and ensures that the potential environmental effects are considered and addressed during construction and operation.
- Key EA components include:
 - Characterization of existing environmental conditions and identification of potential environmental effects and how to manage them
 - Consultation with government/review agencies, Indigenous Nations, the public and other interested parties
- In Ontario, transit project EA process and findings are documented in an Environmental Project Report (EPR) and subsequent EPR Addenda
 - EPR/EPR Addendum assesses the potential environmental effects of a project alignment/design as selected through the Metrolinx Business Case process
 - EA commitments captured in an EPR/EPR Addendum mitigation measures, monitoring activities and future studies to manage and refine environmental effects are binding and included in the project contractual documents

Environmental Assessment Timeline

2009 : York Region, York Region Rapid Transit Corporation, the City of Toronto and the Toronto Transit Commission completed an Environmental Project Report (EPR) to identify potential effects and mitigation measures for a 6.8-kilometre subway extension from the existing Finch Station to Richmond Hill Centre.

2014: An Addendum to the 2009 EPR was undertaken in 2014 to assess design changes that included a train storage facility (TSF) required for subway operations.

2022: Metrolinx EPR Addendum Report assessing changes since the completion of the 2009 and 2014 studies, including changes to horizontal and vertical alignment as well as changes to existing environmental conditions.



EPR Addendum Approach and Study Area

- 1. Characterize existing conditions:
- Review available information
- Complete field studies
- 2. Identify potential environmental impacts, mitigation measures and monitoring activities based on:
- Existing conditions
- Project components
- Construction activities
- Current regulatory requirements and industry best practices

3. Update EPR Addendum based on the feedback received during the public review period



Proposed Changes¹ Assessed in Updated EPR Addendum

- Construction of an at-grade segment of the subway alignment from south of Langstaff Road East to the northern limit of the Train Storage Facility at Moonlight Lane
- Station locations and corresponding bus facilities
- Traction power substations and emergency exit buildings
- Required modifications at Finch Station
- Changes in the locations of the launch and extraction shafts, as well as the addition of the tunnel portal structure
- Location and design changes of the at-grade train storage facility

1. Previous environmental studies were completed in 2009 and 2014. Changes to the project were included in the Metrolinx Initial Business Case for the Yonge North Subway Extension and accompanying supplementary analysis, published on March 18, 2021.



Environmental Topics Assessed



Archaeological Resources



Noise & Vibration



Natural Environment





Socio-Economic & Land Use Characteristics







Traffic & Transportation





Natural Environment

Methods

Review of existing information and field surveys

Findings - Operations

- No long-term impacts.
- During maintenance activities, conduct nest searches/wildlife surveys ahead of the work, refuel away from the watercourses.

Findings - Construction

- Use best management practices and meet all regulatory requirements (e.g., Federal *Fisheries Act* and Provincial *Endangered Species Act*) to avoid or minimize impacts.
 - Keep tree removals to minimum required, follow Metrolinx Vegetation Guideline (2020).
 - Install erosion and sediment controls before work starts.
 - Inspect mitigation measures regularly.



Vegetation Near Proposed High Tech Station Location



Methods

Air quality data review and predictive models

Findings - Operations

The Project is expected to improve air quality in the study area

Findings - Construction:

- Implement best management practices and other measures:
 - Water/apply dust suppressants in work zones
 - Cover material stockpiles
 - Implement anti-idling policy
 - Continuously monitor air quality



Example construction dust monitor in a fenced enclosure (left side of photo)



Noise and Vibration

Methods

• Field surveys and predictive models (e.g., CadnaA).

Findings - Operations

 Proven and readily available mitigation solutions (e.g., floating slab track) will ensure noise and vibration levels will be at or below the regulatory limits.

Findings - Construction:

- Noise and vibration levels will be continuously monitored and carefully managed through proven mitigation measures
 - Use upgraded construction hoarding that can absorb noise
 - Ensure equipment meets noise emission standards and is in good working order
 - Use broadband back-up alarms
 - Use equipment with lower vibration levels



Floating Slab Track Technology Example



Methods

• Review of existing traffic counts, lane configurations, road speed and transit routes; and intersection analysis using traffic analysis software.

Findings - Operations

• The project is anticipated to take vehicles (e.g. cars and buses) off the road and increase demand for transit and active transportation.

Findings - Construction:

- Implement traffic management plans to keep people moving along the work areas
 - Provide detours, signage and lighting
 - Consult with local transit agencies
 - Provide advance notifications
 - Monitor effectiveness of mitigation measures



Traffic control signage example



Socio-Economic and Land Use Characteristics

Methods

• Review of applicable provincial, regional and municipal policies and plans, and field visits to document current public realm characteristics.

Findings - Operations

- The project is consistent with existing policies and plans.
- At-grade infrastructure design, building materials and landscaping will be carefully selected to ensure a seamless fit.

Findings - Construction

- Use best management practices and other measures:
 - Implement plans to manage air quality, traffic, and noise & vibration
 - Maintain existing access to businesses, parks, trails and other community facilities
 - Provide barriers/screens along work zone boundaries
 - Monitor effectiveness of mitigation measures



View Facing North on Yonge Street North of Steeles Avenue



Soil and Groundwater

Methods

• Review background information, including site-specific geotechnical investigation results.

Findings - Operations

• No long-term impacts such as on-going dewatering or impacts to existing groundwater migration pathways.

Findings - Construction

- Soil and groundwater management plans and mitigation measures will address potential effects:
 - Conduct further site-specific investigations (e.g., hydrogeological assessments) prior to work start
 - Test and treat groundwater prior to disposal, as required
 - Meet applicable regulatory requirements (e.g., for soil management) and obtain necessary permits and approvals (e.g., Permit to Take Water)
 - Track soil movement and monitor groundwater disposal



YNSE Geotechnical Investigations



Cultural Heritage

Methods

Background research and field investigations to understand the historical and current context of the study area. A total of 86 heritage properties, including built heritage resources and cultural heritage landscapes were identified within the Study Area.

Findings - Operations

• No impacts anticipated. Any surface infrastructure will be designed with the historical context in mind.

Findings - Construction:

- Conduct pre- and post-construction surveys
- Monitor construction vibration
- Conduct additional technical studies to develop and apply property specific solutions prior to construction, in consultation with the local municipality, Ministry of Heritage, Sport, Tourism and Culture Industries and other stakeholders



Historic and current photograph of 7707 Yonge St, Thornhill, Markham (east side of Yonge St between John St and Centre St)



Methods

- Review area history and previous archaeological studies
- Findings Operations
 - No impacts anticipated

Findings - Construction

- Of the ~91 ha archaeological study area, only ~ 2% will require further assessment should these areas be subject to construction activities.
- Further archaeological assessments will be completed where required in advance of any ground disturbance.



1968 Historic Aerial - Yonge St at Hendon Ave to Talbot Rd at Charlton Blvd. Yellow star indicates approximate location of additional archaeological assessment study in advance of Finch Early Works.

EPR Addendum Review

Feb Not Ada	r uary 10 lice of EPR dendum	March 14 Public Review Closes	April 16 or earlier Notice of Updated EPR Addendum	Up to 35 days MECP Minister's Review Ends
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	Public Review of EPR Ac the Addendum Total up to 65 Days	Idendum (32 days) and update	s to MECP Minister's EPR Addendum Up to 35 Days	Review of Updated

- Effective February 10, 2022 an Addendum to the 2009 EPR is available for review on the Project webpage (www.metrolinxengage.com/en/yonge-north-subway-extension).
- Opportunity to comment on the EPR Addendum until March 14, 2022 via email <u>YongeSubwayExt@metrolinx.com</u> or the online feedback forms available at: <u>www.metrolinxengage.com/en/yonge-north-subway-extension</u>.

EPR Addendum Study Area and Property

- Property identified in the EPR Addendum study area received notifications. As designs are refined, some businesses and properties will be impacted to support the construction and delivery of the subway extension.
- Further assessments are being completed and final property requirements will be identified as project details are confirmed. Once completed, individual property owners will be contacted directly by a Metrolinx representative to discuss next steps.
- We are committed to providing clear, accurate information throughout this process, as early as possible.
- We will work closely with property owners to reach mutually beneficial agreements for any properties that are required to deliver this project.



Share your feedback!

Thank you for taking the time to learn more about the project.

There are multiple opportunities to make your voice heard on the EPR Addendum. Please join us for our next virtual open houses on **February 23, March 2 and March 10.** Register at Metrolinxengage.com/ynse-live

Please visit **Metrolinx Engage** to submit your comment or question on our *Ask A Question* forum.

You can reach us anytime:

- <u>YongeSubwayExt@metrolinx.com</u>
- 416-202-7000

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- Visit our website:
 - Metrolinx.com/YongeSubwayExt
- Participate online: MetrolinxEngage.com/YongeSubwayExt



