Lincolnville Layover and GO Station Improvements IT-2017-EC-010: Environmental Project Report

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Sign-off Sheet

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Executive Summary

Project Overview

Metrolinx is completing a Transit Project Assessment Process (TPAP) under Ontario Regulation (O. Reg.) 231/08, Transit Project and Metrolinx Undertakings. The Lincolnville Layover and GO Station Improvements Project (the Project) includes the proposed expansion of the existing Lincolnville Layover and GO Station to allow for additional overnight train storage through the addition of three new tracks and modifications to associated storage and maintenance infrastructure. The Lincolnville Layover and GO Station (shown in Figure ES- 1) is comprised of an irregularly-shaped parcel of land located at 6840 Bethesda Road and 13190 York-Durham Line, and situated at the northwest portion of the Bethesda Sideroad and York-Durham Line intersection, in the Town of Whitchurch-Stouffville, Regional Municipality of York.

The Purpose of the Project is to expand the existing Lincolnville Layover and GO Station to accommodate increased service and support the need for additional train storage and maintenance associated with the planned growth and service improvements on the Stouffville rail corridor that are being planned and implemented as part of Metrolinx's commitment to Regional Express Rail (RER).

This Environmental Project Report (EPR) documents the findings of the TPAP with respect to existing environmental conditions, potential effects assessment, associated mitigation and monitoring, stakeholder and public consultation, and commitments to future work.



Figure ES- 1: Location of Lincolnville Layover and GO Station

Study Process

This EPR was prepared in accordance with *O. Reg. 231/08, Transit Projects and Metrolinx Undertakings* (Transit Projects Regulation). Under Ontario Regulation (O. Reg.) 231/08, certain types of transit projects that have predictable, and easily manageable environmental effects can follow the TPAP, an Ontario Ministry of the Environment and Climate Change (MOECC) approved, streamlined approach to Environmental Assessments (EA). The method for



determining if the TPAP is an appropriate assessment process for a proposed project is described in Figure ES- 2.

The Lincolnville Layover and GO Station Improvements Project meets the TPAP requirements as presented in Schedule 1 of O. Reg.231/08, as it relates to the following undertakings:

Subsection 2(1) – 4 Construction or modification of tracks required to increase the commuter rail service (including a change to All-Day Service) on an existing rail corridor, including such activities as:

v. construction and/or relocation of storage yard facilities; and

vi. construction of additional switches



Figure ES- 2: Determination of Applicability of TPAP

The TPAP is a proponent-driven, self-assessment process that provides a defined framework for the proponent to follow in order to complete the accelerated assessment of the potential environmental effects and decision-making within a 120-day regulated assessment timeline. Following this period, the regulation provides an additional 30-day public and agency review, and a further 35-day MOECC review. By following the TPAP for certain approved projects, the Transit Projects Regulation exempts the proponent of the transit project from the requirements under Part II of the *Environmental Assessment (EA) Act*.

Prior to formal commencement of the TPAP, proponents are urged to undertake introductory activities and consultation through pre-planning activities. The proponent initiates the TPAP by issuing the Notice of Commencement following completion of the Pre-Planning activities and the regulated 120-day timeframe commences.

The Pre-Planning phase involved a number of key activities, which were undertaken in preparation for the commencement of this TPAP. Environmental and technical studies were undertaken in 2016 and 2017 to determine the existing environmental conditions within and in the vicinity of the Lincolnville Layover and GO Station, which informed design work to determine how best to implement the required upgrades. A feasibility study was then completed in the fall of 2017 to confirm a preferred design approach and conceptual design details for the required upgrades at the Lincolnville Layover and GO Station.



Further details describing the TPAP requirements, activities, and associated timelines are provided in Section 1.0 of this EPR. The steps and timelines in the TPAP are illustrated in Figure ES- 3.



Figure ES- 3: Steps in the Transit Projects Assessment Process



Project Components

The main elements of the preferred design include the addition of three train storage tracks, modification of the existing train storage yard and facilities, adding auxiliary infrastructure to accommodate train storage, relocating 2 Maintenance of Way (MOW) tracks, as well as a modification to the tracks used for storing trains and for passenger loading and unloading through the relocation of storage yard facilities (shown in Figure ES-1). More specifically, the proposed works will include:

Platform Removal: The removal of existing platforms and replacement with storage tracks.

Track Work: Track geometry will change; new switches will be added and minor realignment of existing tracks will be done to accommodate three additional tracks south of the existing tracks.



Figure ES- 4: Conceptual Design for Proposed Improvements

Site Alterations: Alterations to access and service roads to realign them with the new track geometry and result in a total of nine storage tracks when the Project is completed.

System Upgrades: Addition of a new substation and a direct current (DC) battery room for the Facility, equipment changes to the medium voltage (MV) transformer, main switchboard, panels, and wiring, additional hydro pole.

Grading and Drainage: Changes to existing ditching and graded slopes, a new retaining wall.

Site Servicing: Various storm features to collect and store water, piping, trench drains, and drainage ditching with corrugated steel pipe culverts, upsizing the existing Channel Pond.



Fueling: Two new diesel fueling stations and modifications to existing diesel piping, new diesel exhaust fluid dispensers and a stainless steel drip tray.

Further details describing the project components and rationale of the preferred design are provided in Section 2.0 of this EPR.

Assessment of Potential Effects and Proposed Mitigation Measures

The Project has the potential to create changes to the existing environmental conditions that may result in both positive and negative effects. These changes have been considered through consultation with the public, stakeholders and Indigenous communities throughout the Pre-Planning and TPAP phases of the Project. Following identification of existing conditions, an assessment of potential effects and proposed mitigation measures was completed based on the following information:

- An assessment and evaluation of the potential effects that the Project may have on the environment
- A description of any measures proposed to mitigate any negative effects that the Project may have on the environment
- A description of the means to monitor or verify the effectiveness of the proposed mitigations to reduce or eliminate adverse effects

Section 4.0 of this report presents the conclusions of the effects assessment in more detail, and Section 4.5 presents a table highlighting potential effects, mitigation measures, net effects and monitoring requirements. The potential effects of the proposed improvements to the Lincolnville Layover and GO Station are well understood, and can be addressed through the mitigation measures proposed. Overall, the net effects of the proposed improvements will be positive, resulting in short-term, mitigatable disturbances, balanced by long-term benefits to passengers and the broader community. Long-term benefits include improved access to higher-order transit infrastructure, operating more frequently and throughout the day, and reduced reliance on greenhouse gas-emitting private vehicles. The following is a summary of potential effects associated with the proposed project that will require mitigation measures, and anticipated specific net effects following mitigation measures.

Vegetation and Vegetation Species at Risk

There will be a direct loss of vegetation where removal of vegetation is required for construction, including a permanent loss of vegetation around the Lincolnville GO Station. Revegetation and monitoring is proposed to mitigate the effects of vegetation removal. No net effects are anticipated following standard mitigation and monitoring measures, including adaptive management of replanted vegetation (see Section 4.1.1).



Wildlife and wildlife Species at Risk

Although no evidence of bird nesting, fish habitat, or terrestrial species was encountered during field investigations, should wildlife start using the site for life cycle activities, construction could disturb these activities. Pre-construction investigation and specific construction timing windows are proposed to mitigate the potential for negative effects on wildlife. No net effects are anticipated following standard mitigation measures (see Section 4.1.2).

Surface Water and Aquatic Environment

Site grading and site water management could alter flow regimes of a Headwater Drainage Feature and affect downstream habitat through erosion and downstream sediment transport to Reesor Creek. Standard stormwater management and erosion and sediment control measures are proposed to mitigate potential negative effects to off-site aquatic features. No net effects are anticipated following standard mitigation measures (see Section 4.1.3).

Stormwater Management

To maintain water balance and pre-construction flows on the site, the proposed improvements include new and modified stormwater management features. No net effects are anticipated following standard mitigation measures (see Section 4.1.4).

Hydrology and Groundwater

Potential construction dewatering and operations activities could negatively affect groundwater quantity and quality. Mitigation measures include minimizing dewatering and managing groundwater contamination risks. No net effects anticipated following the proposed mitigation measures (see Section 4.1.5).

Soils and Geology

Although no soil contamination is anticipated to be found on the site, construction activities could affect soil quality if unanticipated contaminants are encountered, and operations activities could affect soil quality if spills occur. Soil testing and management of contamination risks are proposed such that no net effects are anticipated (see Section 4.1.6).

Trees

Trees will be disturbed and removed during construction activities and to accommodate the proposed improvements. Tree protection measures are proposed for trees to be retained, and a replanting plan will be developed in consultation with the municipality and conservation authority to address trees to be removed. Minimal net effects are anticipated following standard mitigation measures and tree replanting (see Section 4.1.7).



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Land Use and Users

Current passenger services at the Facility will remain while undergoing construction (i.e. access to GO station and other transit modes will be maintained). Passenger services at the Facility will remain during construction, with signage and on-site construction coordination personnel in place to help direct passengers through the site to limit wait times associated with finding parking and purchasing tickets. Temporary net effects are anticipated with mitigation measures (see Section 4.2.1).

Archaeology

No archaeological resources were identified during the Stage 2 archaeological assessment for the Study Area. No mitigation measures are required, and no net effects are anticipated (see Section 4.3.1).

Cultural Heritage

One Candidate Cultural Heritage Property was identified near the site; however, the proposed works are not anticipated to result in direct or indirect effects on the property. No mitigation measures are required and no net effects are anticipated (see Section 4.3.2).

Air Quality

Increase in volumes of train and vehicular traffic may result in slight changes to air quality, however modelled changes are anticipated to meet MOECC air quality criteria except where background levels of air contaminants already exceed these criteria. Standard construction best management practices are recommended to manage dust, and no net effects are anticipated following standard mitigation measures (see Section 4.4.1).

Noise and Vibration

Noise emissions during construction could cause temporary nuisance to receptors, however noise from the Lincolnville Layover and GO Station's predictable worst case operation do not exceed the criteria outlined in the MOECC and GO Transit *Draft Protocol for Noise and Vibration Assessment* (55 dBA over any hour) at the points of reception studied. No noise control is recommended for the design of proposed improvements and standard construction best management practices are recommended to mitigate the temporary nuisance of construction-related noise. No net effects are anticipated (see Section 4.4.2).

Traffic and Transportation

Construction activities may cause temporary disturbance to vehicular traffic and parking areas, and require temporary changes to pedestrian circulation through passenger areas. Area intersections are anticipated to continue to operate at a good level of service, and signage and construction staging will mitigate temporary construction effects. No net effects are anticipated following the implementation of standard mitigation measures (see Section 4.4.3).



Consultation Process

Metrolinx consulted with government agencies, elected officials, members of the public (including local residents, businesses and interest groups), and Indigenous communities through various communication methods during both the Pre-Planning and TPAP activities.

Consultation for this Project occurred in two main stages – Pre-Planning activities undertaken prior to the Notice of Commencement of the TPAP; and regulated TPAP consultation activities undertaken following the Notice of Commencement of the TPAP. Pre-Planning activities included obtaining input from government agencies, elected officials, members of the public, interested parties, and Indigenous communities. Figure ES- 3 shows how public consultation is integrated into steps of the TPAP.

Following the Pre-Planning activities, the TPAP follows six required key steps that include consultation activities (illustrated in Figure ES- 3):

- 1. Contact with the MOECC and identification of interested agencies and Indigenous communities.
- 2. Issuance of the Notice of Commencement of TPAP.
- 3. Assessment process and consultation with project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities.
- 4. Issuance of the Notice of Completion of the Environmental Project Report (EPR) (within 120 days following the Notice of Commencement).
- 5. Provision of 30 days for government agencies, elected officials, members of the public, and Indigenous communities to review the EPR.
- 6. 35 days for the Minister of the Environment and Climate Change to review the EPR, followed by the submission of a Statement of Completion by the proponent.

A summary of consultation activities is provided below and detailed in Section 6.0.

Project Website

The Project website www.metrolinx.com/lincolnville was maintained to service as a virtual library of materials from public meetings and other Project reports and documentation, as well as a posting location for public notices. The project website also acted as a forum for the public to provide comments on the Project as an alternative to attending Public Meetings.



Stakeholder and Indigenous Consultation and Engagement

Metrolinx provided an opportunity to review agencies, Indigenous communities, adjacent property owners, and community groups to participate in meetings and discussions. An individual briefing was also held with City of Pickering Councilors to provide progress updates pertaining to specific Project interests.

Public Meeting

Metrolinx hosted a Public Meeting on October 26, 2017 to share general information about the Project. The purpose of the Public Meeting was to introduce the Project and Project team to the community, with the intention of providing information as early in the process as possible. There were eight attendees to the Public Meeting.

Notifications and Newspaper Advertisements

A Notice of Public Meeting was prepared to invite residents, agencies, Indigenous communities and other interested persons to attend the meeting to learn about the Project and provide their questions and/or comments to members of the Project Team. This Notice was also published in the Sun Tribune Newspaper on October 12, 2017.

Project Updates Distribution List

Potentially interested parties (including members of the public, property owners, review agencies, Indigenous communities, elected officials, and interested groups) were initially identified through review of MOECC's Government Review Team (GRT) list, reaching out to local and regional municipal bodies and agencies with jurisdiction in the Study Area, obtaining a list of Indigenous community contacts from the MOECC and MTO, and obtaining a list of property owners within 30m of the Study Area. The contact list for the Project has evolved throughout the EA process, based on the level of interest expressed by individuals or additional guidance received by regulatory bodies throughout the study. A stakeholder mailing list and mailing distribution map were prepared and are included in Appendix B.

Project E-mail

A direct email address (<u>Lincolnville@metrolinx.com</u>) was created and monitored regularly by Metrolinx staff.

Mailings

Project notices were mailed to all residents, agencies, Indigenous communities and other interested persons on the distribution list via Canada Post, and were mailed via Canada Post mail drop to a further approximately 7,500 residents of the Stouffville, Claremont and Uxbridge communities.



Online Engagement (Engage Metrolinx)

Metrolinx's online engagement website, <u>www.metrolinxengage.com</u>, was used to facilitate electronic engagement efforts during the TPAP through an online survey from January 18 to February 2, 2018. A copy of the draft environmental studies, and a presentation summarizing the project, environmental effects, and proposed mitigation measures was available for review prior to completing the survey or submitting comments.

Future Commitments and Monitoring

O. Reg. 231/08 requires future commitments, including required permits and approvals to be documented as part of the TPAP to facilitate project implementation in accordance with project-specific mitigation measures and monitoring activities described in this EPR and in a manner that does not result in negative impact on matters of provincial interest related to the natural environment or to cultural heritage value or interest, or on constitutionally protected Indigenous or treaty rights.

This EPR outlines the commitments made by Metrolinx as a part of the TPAP to continue to obtain permits and approvals required for the construction of improvements to, and, as applicable, ongoing operations of the Lincolnville Layover and GO Station. These commitments include consultation with permitting agencies and authorities from whom permits are not a legislative requirement, however Metrolinx has committed to meeting the spirit and intent of the permit that would be applicable to other proponents. Metrolinx has also committed to monitoring and adaptive management of mitigation measures throughout construction activities.

All applicable permits, approvals, and monitoring requirements under environmental laws will be reviewed, confirmed and obtained by Metrolinx prior to the construction of the Project. A complete table of future commitments is provided in Section 7.0 of this EPR.

The following plans will be developed and implemented as part of and Environmental Protection Program to mitigate potential construction effects:

- Erosion and Sediment Control Plan
- Excess Materials Management Plan (for construction-related waste)
- Landscape Plan
- Soil Management Plan (for contaminated soils)
- Air Quality Management Plan
- Complaint Response Protocol
- Emissions Management Plan
- Spill Prevention and Response Plan
- Hazardous Materials and Fuel Handling Plan
- Wildlife Encounter Protocol



As part of future commitments, an Addendum to the EPR may be required if Project developments result in any design variations from what was assessed in this EPR during the approvals, Detailed Design, and construction processes. The TPAP includes provisions in O. Reg. 231/08 for proponents to make changes to a transit project after the Statement of Completion is submitted to the Director of the Environmental Assessment and Approvals Branch of the MOECC and the MOECC Regional Director. In compliance with O. Reg. 231/08. Metrolinx will prepare an addendum to the EPR if there is a proposed change to the Project that is inconsistent with the EPR after the Statement of Completion is issued. A change that is inconsistent with the EPR is generally defined as one for which the effects have not been accounted for in the EPR, either directly or through a contingency planning approach in which a worst-case scenario has been contemplated and a protocol for addressing change has been included in the EPR. Further details describing the EPR addendum process and requirements are provided in Section 7.3 of this EPR.



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APPENDIX B: RECORD OF CONSULTATION AND CONSULTATION REPORT



Glossary of Terms and Acronyms

Assessment Area	Geographic area examined for discipline-specific Project studies
BRT	Bus Rapid Transit
Bus Facility	Passenger and Maintenance for GO Bus Service
CNR	Canadian National Railway
COC	Contaminant of Concern
CPR	Canadian Pacific Railway
СТС	Centralized Traffic Control
CWR	Continuous Welded Rail
DEF	Diesel Exhaust Fluid
DFO	Fisheries and Oceans Canada
EAA	Environmental Assessment Act
EA	Environmental Assessment
EPR	Environmental Project Report
ESA	Endangered Species Act, 2007 (Ontario)
GO Transit/ MOECC Protocol	GO Transit/ MOECC Draft Protocol for Noise and Vibration Assessment



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GTHA	Greater Toronto and Hamilton Area
Layover Facility	Train Layover and Ancillary Services, includes all of the equipment and infrastructure within the property boundaries used to store and maintain the GO Trains overnight when not in use.
LRT	Light Rail Transit
MBCA	Migratory Birds Convention Act
ММАН	Ministry of Municipal Affairs and Housing
MNRF	Ministry of Natural Resources and Forestry
MOECC	Ministry of Environment and Climate Change
MOW	Maintenance of Way
MPIR	Ministry of Public Infrastructure Renewal
МТО	Ministry of Transportation
MTCS	Ministry of Tourism, Culture and Sport
NHIC	Natural Heritage Information Centre
NSA	Noise-Sensitive Area
OGS	Oil Grit Separator
O. Reg.	Ontario Regulation
O. Reg. 231/08	Ontario Regulation 231/08, Transit Projects and Metrolinx Undertakings (a.k.a. Transit Projects Regulation)



Project	Lincolnville Layover and GO Station Improvements
PM	Public Meeting
PPS	Provincial Policy Statement, 2014
PPUDO	Passenger pick-up and drop-off
RER	Regional Express Rail
ROW	Right-of-Way
RTP	Regional Transportation Plan
SAR	Species at Risk
SARA	Species at Risk Act (Federal)
SARO	Species at Risk in Ontario
Site	Property in which is located the Lincolnville Layover and GO Station and bus passenger area
Sub.	Subdivision
тс	Transport Canada
ТРАР	Transit Project Assessment Process
TRCA	Toronto and Region Conservation Authority
YRT	York Region Transit



Units and Measurements

mm	millimetre
ст	centimetre
m	metre
km	kilometre
m asl	metre above sea level
m bgs	metre below ground surface
ha	hectare



Introduction and Study Process February 23, 2018

1.0 INTRODUCTION AND STUDY PROCESS

With the Greater Toronto and Hamilton Area (GTHA) now being home to nearly seven million people and heading toward 10 million by 2041, transit needs are increasing. To address these urgent transit needs, the Province of Ontario committed to implementing Regional Express Rail (RER) and making other improvements to the GO system. Metrolinx is an agency of the provincial government tasked with implementing regional transit solutions in the GTHA. As part of the RER program, Metrolinx is planning for additional peak-hour and peak-direction service along the Stouffville rail corridor. System upgrades are being planned along this corridor, including the development of the infrastructure necessary to support the introduction of additional trains to meet these needs.

The Lincolnville Layover and GO Station Improvements Project (the Project) is being planned in support of Metrolinx's RER program (details can be found online at http://www.metrolinx.com/en/regionalplanning/rer/). Service improvements on the corridor are also supported by a number of policies, plans and studies that have been completed in the past by area municipalities, regional authorities, and the provincial government.

The location of the Lincolnville Layover and GO Station is shown in Figure 1-1, on the following page.

1.1 PROJECT OVERVIEW

The Lincolnville Layover and GO Station (the site) is the last, northernmost stop on the Stouffville rail corridor, offering passenger service between Union Station in Toronto and Lincolnville GO Station, which is located at 6840 Bethesda Road in the Town of Whitchurch-Stouffville (see Figure 1-1). The site serves multiple purposes: a passenger stop on the Stouffville rail corridor; and a Layover Facility for trains, including six storage tracks and maintenance of way (MOW) siding and yard; and, bus passenger service, storage, fueling and sanding operations for its vehicles.



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Figure 1-1: Location of the Lincolnville Layover and GO Station

The Lincolnville Layover and GO Station was originally developed to exclusively serve as a Layover yard for the Stouffville rail corridor. The station was added to the site in 2008 to provide a northerly extension of passenger service from Stouffville to Lincolnville. However, due to its proximity to a Layover yard, the existing station services are limited. The need for and location of new station facilities was determined through the development of a Feasibility Study (details can be found online at

http://www.metrolinx.com/en/regionalplanning/rer/20171117 Lincolnville FeasibilityStudyReport



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<u>EN.pdf</u>) (Stantec 2017), which reviewed the constraints and opportunities associated with both the proposed improvements to the Layover Facility and the needs of the Station facilities.

The Feasibility Study outlined that, as part of the commitments for RER service improvement, and in keeping with the goals and objectives of regional transit planning and provincial and local policy direction, upgrades to the existing Lincolnville Layover and GO Station facilities are required to:

- Increase ridership safety
- Accommodate future ridership growth
- Enhance pedestrian and cycling access and amenities
- Provide barrier-free access to existing parking

The existing infrastructure and storage capacity at the Layover Facility is not sufficient to support the proposed growth of service on the Stouffville rail corridor, and upgrades to the Facility are required to accommodate planned improvements. Six Layover storage tracks are currently in use at this Facility. Improvements to the site must meet the future need to store nine trains on separate Layover storage tracks and the auxiliary infrastructure and systems to support these additional trains.

In addition, the existing Lincolnville GO Station services, situated within the same site as the Lincolnville Layover Facility, will require upgrades to facilitate a safe and comfortable experience for GO customers and accommodate future train and bus ridership growth. This EPR addresses the proposed improvements to the Layover Facility. Future planning for the Station facilities will be addressed through an EPR Addendum process (see Section 1.8 for additional information on the Addendum process).

1.2 PLANNING CONTEXT AND OTHER PROJECTS

A number of policies, plans and studies preceded this process, which have helped determine the need for and, eventually, the design considerations for the proposed improvements to the site. These include:

- Provincial and Regional Plans and Initiatives:
 - Provincial Policy Statement (PPS), Ministry of Municipal Affairs and Housing (MMAH), 2014
 - Growth Plan for the Greater Golden Horseshoe, Ministry of Municipal Affairs, 2017
 - MoveOntario 2020, 2007



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- The Big Move Transforming Transportation in the Greater Toronto and Hamilton Area, 2008
- Strategic Plan: GO 2020, GO Transit, 2008 York Region Transportation Master Plan
- GO Rail Network Electrification TPAP, Metrolinx, 2017
- Oak Ridges Moraine Conservation Plan, Government of Ontario, 2017
- York Region Official Plan, York Region, 2016
- Municipal Plans and Policies
 - Whitchurch-Stouffville Official Plan and Zoning By-law

These policies, plans and studies and their relevance to the project are described below.

1.2.1 Provincial and Regional Plans and Initiatives

1.2.1.1 Provincial Policy Statement, 2014

The Provincial Policy Statement (PPS) is created under the Ontario *Planning Act*, and serves as a policy direction document on matters of provincial interest related to land use planning and development. The PPS promotes transit-supportive land use patterns where transit is planned, exists or may be developed. It also promotes land uses that minimize the length and number of vehicle trips that support current and future use of transit and active transportation. Key policies within the PPS that apply to this Project are described below.

Infrastructure developed should be coordinated, efficient and cost-effective, while promoting energy efficient, green infrastructure, as described in policies 1.6.2, 1.6.7.1 (Government of Ontario, 2014). The Lincolnville Layover improvements will utilize the existing infrastructure and public service facilities, as preferred by policies 1.6.2, 1.6.7.1 (Government of Ontario, 2014). Long-term economic prosperity is described in policy 1.7 as promoting opportunities for economic development and community investment-readiness (1.7.1 (a), Government of Ontario, 2014), while providing for an efficient, cost-effective and reliable multimodal transportation system that is integrated with adjacent systems (1.7.1 (f), Government of Ontario, 2014).

The Lincolnville Layover and GO Station promotes the use of public transit in the Lincolnville area, as well as the ability to provide GO Transit trains along the Stouffville Corridor.

1.2.1.2 Growth Plan for the Greater Golden Horseshoe, Ministry of Municipal Affairs, 2017

The Growth Plan identifies growth areas and growth targets, including the promotion of intensification. The Growth Plan also encourages growth near transit corridor, by providing connectivity among transportation modes and multimodal access to jobs, housing, and schools



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(policy 3.2.2.2 (b) (d) MMA, 2017). The Stouffville GO corridor is identified as an Existing Higher Order Transit line, which includes all forms of rapid transit. The Plan also identifies that public transit should be fast, convenient and affordable as part of an integrated transportation network. The Plan encourages increasing the capacity of existing transit systems (policy 3.2.3.2 (d), MMA, 2017), and facilitation improved linkages between and within municipalities (policy 3.2.3.2 (e), MMA, 2017).

The Lincolnville Layover and GO Station supports the continued use of GO Transit along the Stouffville Corridor as it provides a transit station, as well as a storage area for trains not in use.

1.2.1.3 MoveOntario 2020, 2007

The Move Ontario 2020 Plan was developed in June 2007 with the goal of reducing congestion through increases to transit ridership through investments in 52 new rapid transit projects. The multi-year plan, led by the Greater Toronto Transportation Authority (GTTA), in partnership with the Provincial Government and Federal Government had a target of having 66 percent of projects completed by 2015, and 95 percent completed by 2020.

The GO Transit Stouffville rail corridor capacity expansion from Union Station to Stouffville and extension of the line to Uxbridge was featured on the Move Ontario 2020 project list. The Lincolnville Layover and GO Station project supports the capacity expansion of the Stouffville rail corridor.

1.2.1.4 The Big Move – Transforming Transportation in the Greater Toronto and Hamilton Area, 2008

In late 2012, Metrolinx announced the expansion of the Stouffville rail corridor as part of the "Next Wave" of Big Move projects to be funded by Metrolinx's Investment Strategy (Metrolinx, 2012a). The Big Move calls for the expansion of a portion of the Stouffville rail corridor to twoway, all day regional rail service every 15 minutes within the 15-year planning horizon. In order to support this, many improvements to the corridor are required, including improvements at the Lincolnville Layover and GO Station.

1.2.1.5 GO Transit's GO 2020, 2008

GO 2020 was GO Transit's strategic plan developed in 2008. The plan identifies its continued effort to encourage the expansion of the rail and bus network in the GTHA, as well as linkages to other systems such as Light Rail Transit and Bus Rapid Transit options. The Plan identifies an expansion of existing GO rail lines beyond Lincolnville to Uxbridge on the Stouffville GO corridor, and increased service among the projects for the 2020 Plan.

1.2.1.6 Regional Municipality of York Transportation Master Plan, 2016

The Regional Municipality of York published the Transportation Master Plan in 2016. The plan is a high-level policy document that identifies a number of priorities for moving people and goods



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throughout and into York Region by 2041. The plan shows a number of proposed infrastructure upgrades that will help move people to the Lincolnville Layover and GO Station. These include extending the frequent transit network to the Lincolnville Layover and GO Station, installing dedicated bike lanes on Bloomington Road and Woodbine Avenue in the vicinity of the site, road widenings to four lanes on Leslie Street and Woodbine Avenue in the vicinity of Bloomington Road, and a commuter parking lot at Bloomington Road and Highway 404.

These proposed changes would increase the accessibility of the Lincolnville GO Station to area residents and businesses, and encourage increased ridership on the Stouffville GO corridor.

1.2.1.7 GO Rail Network Electrification TPAP, Metrolinx, 2017

The population of the GTHA is increasing, and with it, traffic congestion. As part of Moving Ontario Forward, Metrolinx is committed to electrifying the GO Transit system to bring 15minute, two-way electrified service to core parts of the network through the RER program. A component of the regional transportation plan, The Big Move, this program supports Metrolinx's goal of transforming the GO system into a comprehensive regional rapid transit network. Electrification of the GO network is a key component of the RER program.

The GO Rail Network Electrification undertaking will entail design and implementation of a traction power supply system and power distribution components including: An Overhead Contact System (OCS) along the rail corridors, electrical feeder routes, and a number of traction power facilities located within the vicinity of the rail corridors. The purpose of the GO Rail Network Electrification project is to convert six GO-owned rail corridors from diesel to electric propulsion, including the Stouffville Rail Corridor from Scarborough Junction (off Lakeshore East Corridor) to Lincolnville GO Station. In order to electrify the system, there is new infrastructure that needs to be built as well as modifications to existing infrastructure (such as existing GO Stations and Maintenance Facilities).

A Notice of Completion for the GO Rail Network Electrification TPAP was issued on October 11, 2017. Following the MOECC Minister's review, the Minister issued a Notice to Proceed (approved without conditions) on December 11 2017. A Statement of Completion was submitted to MOECC on December 17, 2017, identifying Metrolinx's intent to process with the transit project in accordance with the Environmental Project Report.

1.2.1.8 Oak Ridges Moraine Conservation Plan, Government of Ontario, 2017

The Oak Ridges Moraine Conservation Plan is an ecologically based plan that provides land use and resource management planning direction to stakeholders on how to protect the ecological and hydrological features and functions of the 190,000 hectares of land and water within the Moraine. Land use planning must be coordinated with infrastructure planning to comply with the requirements of section IV 41 and implement the Plan (Government of Ontario, 2017).



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The Plan requires that all new or upgraded infrastructure must be supported by the necessary studies, assessments and documentation to demonstrate that the project will address stormwater management (IV 41 1.2 (c)), utilize low impact development and green infrastructure (IV 41 1.2 (d), and assess actions to reduce greenhouse gas emissions (IV 41 1.2 (e)) (Government of Ontario, 2017).

The proposed Project will utilize low impact development measures to mitigate the effects of runoff by managing it as close to the source as possible, and the future electrification of the GO rail network will reduce greenhouse emissions.

1.2.1.9 York Region Official Plan, York Region, 2016

The York Region Official Plan provides policies to guide economic, environmental and community building decisions to manage growth. The policies in this Plan aim to strengthen the connections between the natural and built environment, job opportunities, human services, transportation and public health. A well-integrated public transit system is essential to enhancing the quality of life for residents and workers in York Region. The proposed Project will comply with the provisions of the Oak Ridges Moraine Conservation Plan (6.2.8 York Region, 2016), as well as the policies listed in section 6.2 of the York Region Official Plan.

The York Region Transportation Master Plan (section 7.0 York Region, 2016) sets immediate and long term public transit goals that form the basis for the transit network. The Plan aims to provide transit service that is convenient and accessible to everyone in York Region by working with partners, such as Metrolinx, to complete the transit network and enhancements (7.2.22 York Region, 2016). To achieve higher transit usage, parking and drop-off facilities should be created (7.2.25 (e)) and intermodal terminals should be created (7.2.25 (f)) and enhanced for future requirements (York Region 2016).

Metrolinx is committed to employing best management practices both during construction as well as in the future operation of the Proposed Station and Layover Site.

1.2.2 Municipal Plans and Policies

1.2.2.1 Town of Whitchurch-Stouffville Official Plan and Zoning By-Law

According to the Town of Whitchurch-Stouffville Official Plan, the proposed Site is situated within a designated Major Transit Station Area in the Town of Whitchurch-Stouffville Official Plan, Amendment No. 137. Permitted uses under this designation allow for transportation and related ancillary uses, including maintenance, industrial and commercial. The lands west of the Lincolnville GO Station are privately owned and are not proposed to be acquired for GO Station Uses. However, the lands may be used for non-residential uses compatible with and/or supportive of GO Station use.



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1.3 PURPOSE OF THE TRANSIT PROJECT

The purpose of the Project is to expand the existing Lincolnville Layover and GO Station to accommodate increased service and support the need for additional train storage and maintenance associated with the planned growth and service improvements on the Stouffville rail corridor.

1.4 DESCRIPTION OF THE STUDY AREA

The Study Area for the Project is comprised of an irregularly-shaped parcel of land located at 6840 Bethesda Road and 13190 York-Durham Line, and situated at the northwest portion of the Bethesda Sideroad and York-Durham Line intersection, in the Town of Whitchurch-Stouffville, Regional Municipality of York. The site is currently occupied by:

- The Lincolnville Rail and Bus Maintenance Facility located within the northeast portion of the site
- The Lincolnville GO Station and parking area located within the south-central portion of the site
- The Lincolnville Layover Facility located within the southwest portion of the site.

The Study Area is limited to the parcel of land owned by Metrolinx, however some of the environmental investigations have reviewed broader areas, as described below. The Study Area is shown in Figure 1-2.



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Figure 1-2: TPAP Study Area



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To complete the specific environmental and technical studies required for this TPAP, disciplinespecific Assessment Areas have been defined that extend beyond the Study Area (for instance, a broader regional area was used for groundwater and land use purposes, while the terrestrial and cultural heritage assessment included additional buffers beyond the property boundary). These Assessment Areas are described in greater detail in Section 3.0 of this EPR, and summarized in Table 1-1.

Discipline Study	Assessment Area
Terrestrial Ecosystems Assessment	Within 120 m of the Study Area.
Fisheries Habitat (Surface Water and Aquatic) Assessment	Desktop assessment of the Reesor Creek subwatershed, and field assessment within the limits of the Study Area.
Hydrogeological Assessment	Desktop assessment of existing conditions and well water records within the limits of the Study Area and within 500m of the Study Area.
Soils Assessment	Drilling of boreholes to the east of the existing storage tracks to depths of approximately 3-5m and a review of conditions within 500 m of the Study Area.
Tree Inventory and Arborist Report	Study Area.
Land Use Planning Assessment	Study Area and adjacent properties.
Stage 1-2 Archaeological Assessment	Approximately 12.3 hectares of land in an irregular shape surrounding the Study Area, to encompass the Study Area and adjacent lands for which Archaeological Potential has been identified, including a channeled tributary of West Duffins Creek and Stouffville Creek.
Cultural Heritage Screening	The Study Area plus properties within a 50 m buffer of the Study Area.
Air Quality Evaluation	Study Area and surrounding area extending 500 m from the property lines.
Preliminary Acoustic Assessment	Study Area and surrounding area extending 500 m from the property lines.
Traffic Impact Study	Study Area and adjacent intersections.

Table 1-1: Assessment Areas by Discipline Study

1.5 PRE-PLANNING ACTIVITIES

In 2012, Metrolinx announced the expansion of the Stouffville rail corridor as part of the "Next Wave" of "Big Move" projects. A number of studies were undertaken to determine how best to implement the expansion of the line, and it was determined that as a result of the expansion, the Lincolnville Layover and GO Station would require upgrades and additional train storage.



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Beginning in the spring of 2016, in advance of completing the conceptual planning for the Lincolnville Layover and GO Station, environmental and technical studies were completed that inventoried existing environmental conditions within the Study Area (see Table 1-1 above for Assessment Area information). The environmental and technical studies informed design work to determine how best to implement the required upgrades to the Layover Facility. A feasibility study was then completed in the fall of 2017 to determine conceptual design details for the required upgrades at the Layover Facility, including new GO Station features. In advance of commencing the TPAP for the proposed improvements to the Layover Facility, Metrolinx consulted with project stakeholders (including government agencies, elected officials, and members of the public) and Indigenous communities to determine the level of interest in the project and to get feedback on the preliminary design details. The Project involved a number of key activities, which were undertaken before, and in preparation for the commencement of the TPAP.

Although not required under the legislation, the MOECC recommends that Pre-Planning activities are undertaken in advance of commencing the TPAP (MOECC, 2014). The TPAP is a time-limited process, therefore the exemption of a particular project from the requirements of Part II of the EAA depends on following the prescribed steps in the regulation and complying with the prescribed time limits, Pre-Planning activities provide more certainty to the proponent that the prescribed steps can be undertaken within the prescribed time limits. Pre-Planning allows proponents to enter the TPAP well-prepared, and with an understanding of, and proposed resolution for the key issues. Pre-Planning activities undertaken in advance of releasing the Notice of Commencement of this TPAP included the development of a draft EPR, and updating design decisions based on input received from consultation activities. The development of the draft EPR involved confirming the project description, outlining the results of effects assessments, determining required mitigation measures and commitments for obtaining permits and approvals, as well as monitoring activities during and after construction activities. The following sections outline the planning process conducted during the key phases of the project prior to commencing the TPAP, namely:

- Environmental studies
- Pre-Planning consultation

The outcome of the planning process is described in subsequent chapters.

1.5.1.1 Environmental Studies

Environmental and technical studies were undertaken in 2016 and 2017 to determine the existing environmental conditions within and in the vicinity of the Lincolnville Layover and GO Station. Environmental studies provide a snapshot of existing conditions in order to assess the extent of the potential effects associated with the proposed improvements, identify appropriate mitigation measures and inform progressive design decisions.


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Natural, technical, social and cultural conditions were characterized through the completion of the following environmental studies:

- Terrestrial Ecosystems Assessment
- Fisheries Habitat (Surface Water and Aquatic) Assessment
- Stormwater Management
- Hydrogeological Assessment
- Soils Assessment
- Tree Inventory and Arborist Report
- Land Use Planning Assessment
- Stage 1 2 Archaeological Assessment
- Cultural Heritage Screening
- Air Quality Evaluation
- Acoustic Assessment
- Traffic Impact Study

The results of these studies are summarized in Section 3.0. The detailed reports are available in Appendix A.

1.5.1.2 Pre-Planning Consultation

Consultation for this Project occurred in two main stages – Pre-Planning activities undertaken prior to the Notice of Commencement of the TPAP; and regulated TPAP consultation activities undertaken following the Notice of Commencement of the TPAP. Pre-Planning activities included consultation to help inform the eventual TPAP. Consultation activities were undertaken to help inform design decisions and proposed improvements to the site, and identify possible environmental effects and required mitigation measures. Pre-Planning consultation activities included obtaining input from government agencies, elected officials, members of the public, and Indigenous communities.

Details of public consultation activities, comments and questions received, and Metrolinx responses are provided in Section 6.0 of this EPR.



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1.6 TRANSIT PROJECT ASSESSMENT PROCESS (TPAP)

This EPR has been prepared in accordance with the *Environmental Assessment Act* (EAA) and Ontario Regulation (O. Reg.) 231/08.

The EAA defines the environment as:

- Air, land and water
- Plant and animal life, including human life
- The social, economic and cultural conditions that influence the life of humans or a community
- Any building, structure, machine or other device or thing made by humans
- Any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities
- Any part of or combination of the foregoing and the interrelationships between any two or more of them.

An Environmental Assessment (EA) is required for all large-scale projects undertaken by public bodies that have the potential to affect the environment. These projects require approval from the Government of Ontario before proceeding to the next phase.

O. Reg. 231/08: Transit Projects and Metrolinx Undertakings acknowledges that certain types of transit projects have more predictable environmental effects that are more readily managed, and that a more streamlined approach to EA is appropriate for these projects. This EA process for transit projects is known as the Transit Project Assessment Process (TPAP) and involves a planning process that protects the environment, but shortens the timeline for the completion of transit projects to six months for commencement, review and approval. By following the TPAP for certain approved projects, the Transit Projects Regulation exempts the proponent of the transit project (i.e., Metrolinx) from the requirements under Part II of the *EAA*.

O. Reg. 231/08 describes the requirements of the TPAP for transit projects, and defines the types of transit projects that can be assessed under the TPAP. Schedule 1 of O. Reg. 231/08 describes the types of undertakings to which the TPAP applies.

The Lincolnville Layover and GO Station Improvements Project meets the TPAP requirements as presented in Schedule 1 of O. Reg.231/08, as it relates to the following undertakings:

Subsection 2(1) - 4 Construction or modification of tracks required to increase the commuter rail service (including a change to All-Day Service) on an existing rail corridor, including such activities as:

v. construction and/or relocation of storage yard facilities; and



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vi. construction of additional switches

The TPAP is focused on an assessment of the environmental effects of a transit project, and allows for decision-making to be completed within approximately six months. Prior to commencing the TPAP, Pre-Planning activities, including Pre-Planning consultation, were undertaken in order to allow Metrolinx to meet the TPAP timelines. The TPAP follows six key steps, illustrated in Figure 1-3 (below):

- 1. Contact with the MOECC and identification of interested agencies and Indigenous communities.
- 2. Issuance of the Notice of Commencement of TPAP.
- 3. Assessment Process and Consultation with project stakeholders (government agencies, elected officials, and members of the public) and Indigenous communities.
- 4. Issuance of the Notice of Completion of the EPR (within 120 days following the Notice of Commencement).
- 5. Provision of 30 days for the government agencies, elected officials, members of the public, and Indigenous communities (and other interested persons) to review the EPR.
- 6. 35 days for the Minister of the Environment and Climate Change to review the EPR, followed by the submission of a Statement of Completion by the proponent.





Figure 1.3: The TPAP process (MOECC, 2014)

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A TPAP study must assess the potential effects of a proposed project on the natural, social, and cultural environments, and identify mitigation measures to reduce or eliminate any potential negative effects. Technical, safety, and economic considerations are also included in the assessment of effects and determination of project feasibility. Public consultation is an important component of the TPAP, and this TPAP study has provided opportunities to government agencies, elected officials, members of the public, Indigenous communities, and other interested persons such as businesses and special interest groups to review and comment on Project documents and decisions.

The preparation of the EPR includes the assessment of environmental effects and determination of mitigation measures following several steps that include input from consultation efforts and result in design progression such that effects are minimized or mitigated. Key steps in the process are as follows:

- Conducting an inventory of existing environmental features, including natural, social and technical features that could be affected by project work.
- Determining the potential effects of the proposed works on those environmental features.
- Developing mitigation measures to reduce or eliminate effects.
- Consultation with government agencies, elected officials, members of the public, and Indigenous communities.

The details of the steps followed for this TPAP, and the outcome of those steps are described in Sections 2.0 through 6.0 of this Environmental Project Report (EPR).

1.7 OBJECTION PROCESS, MINISTER'S REVIEW AND STATEMENT OF COMPLETION

The submission of this EPR and the issuance of the Notice of Completion trigger the beginning of the 30-day public/agency review period. During this time, if government agencies, elected officials, members of the public, Indigenous communities or other interested persons have concerns about the transit project described herein, objections can be submitted to the Minister of the Environment and Climate Change. After the 30-day review period has ended, any objections received will not be considered, and the Minister has 35 days within which certain authority may be exercised.

Persons wishing to submit an objection for the Minister to consider should provide the following information:

- Name, mailing address, organization or affiliation (where applicable), daytime telephone number, email address (where possible)
- Contact details of the proponent including, name, address, and phone number



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- Brief description of the proponent's undertaking
- Basis for why further study is required, including identification of any negative impacts concerning a matter of provincial importance that relates to the natural environment or has cultural or heritage value or interest, or a constitutionally protected Aboriginal or treaty right that was not identified in the proponent's EPR.
- Summary of how the person(s) objecting has participated in the Project's consultation process

Whether there is a public objection or not, the Minister may act within the 35-day period to issue one of the following three notices to the proponent:

- 1. A notice to proceed with the transit project as planned in its EPR;
- 2. A notice that requires the proponent to take further steps, which may include further study or consultation; or
- 3. A notice allowing the proponent to proceed with the transit project subject to conditions.

The Minister may give notice allowing the proponent to proceed with its transit project but can only take action if there is a potential for a negative effect on a matter of Provincial importance that relates to the natural environment or has cultural heritage value or interest, or on a constitutionally protected Indigenous or treaty right. If the Minister issues a notice to proceed with the transit project as planned, or if the Minister does not act within the 35-day period, Metrolinx will issue a Statement of Completion and proceed to implementation.

The TPAP will be completed when Metrolinx submits a Statement of Completion to the Director of the Environmental Assessment and Approvals Branch of the MOECC and the MOECC Regional Director. Metrolinx will also post the Statement of Completion on the Project website, at www.metrolinx.com/lincolnville. The Statement of Completion will indicate that Metrolinx intends to proceed with the transit project in accordance with either:

- 1. The EPR;
- 2. The EPR subject to conditions set out by the Minister; or
- 3. The Revised EPR.

Construction or implementation of a transit project subject to the TPAP cannot begin until the requirements of the process have been met. Subject to these requirements, the transit project may proceed once additional required permits and approvals are received. Further details on the timing of implementation are presented in Section 7.0.



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1.8 TPAP ADDENDUM PROCESS

The Project presented in this EPR is not a static plan, nor is the context in which it is being assessed, reviewed, approved, constructed, and used. Given the potential for changes to the Project resulting from the approvals, detailed design, and construction process, it is important to include the responsibilities of the proponent should changes to the Project be required.

This EPR identifies the effects associated with the Project as presented in the following pages, and the Study Area in which the Project can feasibility be constructed. The actual layout of the project elements is subject to detailed design and any change from that shown in this EPR, unless it results in an environmental effect which cannot be accommodated within the committed mitigation measures, does not require additional approval under *O. Reg. 231/08*.

The TPAP includes provisions (in Section 15 of the Regulation) for proponents to make changes to a transit project after the Statement of Completion is submitted to the Director of the Environmental Assessment and Approvals Branch of MOECC and the MOECC Regional Director.

In compliance with Section 15(1) of the Regulation, Metrolinx will prepare an addendum to the EPR which is subject to a 30-day comment period if there is a proposed change to the Project that is inconsistent with the EPR after the Statement of Completion is issued. A change that is inconsistent with the EPR is generally defined as one for which the effects have not been accounted for in the EPR, either directly or through a contingency planning approach in which a worst-case scenario has been contemplated and protocol for addressing change has be included in the EPR. If the proposed change would result in a lesser impact than planned for and meets the mitigation intents identified in the EPR, it may be deemed to be consistent with the EPR and therefore no addendum is required. Change to the Project may also be required if there is significant lapse of time (i.e., ten years) between the Statement of Completion and the start of construction, which will require a formal review of the Project in accordance with Section 16 of the Regulations.

The EPR addendum must include the following information:

- A description of the proposed change
- The reason for the proposed change
- An assessment and evaluation of any impacts that the proposed change might have on the environment
- A description of any proposed measure for mitigating any negative effects that the proposed might have on the environment
- A statement of whether the proponent is of the opinion that the proposed change is significant (or not), and reason for the opinion



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If changes to the Project indicate that an addendum is required, Metrolinx will have the option of proceeding with the Project changes under the provisions/requirements of the TPAP process in the *Environmental Assessment Act* (EAA) and Ontario Regulation (O. Reg.) 231/08: Transit Projects and Metrolinx Undertakings. The requirement for an addendum does not apply to a change that is required to comply with another Act, a regulation made under another Act, or an order, permit, approval or other instrument issued under another Act.

1.8.1 Addendum to the Lincolnville Layover and GO Station Project

An EPR Addendum will be required as a result of potential changes to the existing GO Station facility. The EPR Addendum will be prepared in accordance with the requirements of O. Reg. 231/08, and will include required consultation and documentation activities. Details on the potential changes to the EPR that could result in an addendum are outlined in Section 7.4.

1.9 ENVIRONMENTAL PROJECT REPORT (EPR) ORGANIZATION

The documentation of the TPAP, as provided in this EPR, will be submitted to MOECC within 120 days of publishing the Notice of Commencement. This EPR documents the existing environmental conditions within the Study Area (and broader Assessment Areas where applicable), the potential environmental effects of the Project, recommended mitigation measures, the consultation process followed, and future commitments for the Project. Details of the TPAP activities are presented in appendices to this document. The contents of this document are as follows:

Section 1 Introduction and Study Process: Overview and purpose of the project.

Section 2 Project Description: Describes the preferred design.

Section 3 Existing Conditions: Describes the existing environmental conditions in each discipline-specific Assessment Area that could be affected by the proposed Project.

Section 4 Effects Assessment: Describes the positive and negative effects of the preferred design, and operational features included in the design to mitigate negative effects.

Section 5 Climate Change: Describes the potential effects of the project on climate conditions and the potential effects of climate change on the project.

Section 6 Consultation: Describes the approach to consultation, the consultation activities undertaken and feedback received throughout the study, as well as Metrolinx's responses to feedback.

Section 7 Permits and Approvals and Commitments and Future Work: Lists permitting and approvals requirements, and exemptions to requirements, if any, applicable to Metrolinx for this project.



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Section 8 References: Lists publication details of all documents referenced in the EPR.

Appendix A Environmental Reports

Appendix A1 Terrestrial Ecosystems Assessment: Desktop and field inventory (where required) of all natural heritage features, including vegetation, habitats, wildlife, species at risk sightings.

Appendix A2 Fisheries Habitat (Surface Water and Aquatic) Assessment: Desktop and field inventory (where required) of all hydrological features on the site.

Appendix A3 Stormwater Management Report: Outlines the stormwater management infrastructure currently on the site and identifies additional stormwater management infrastructure required to be included in the design of proposed improvements to the site in order to maintain water quality, quantity, and balance.

Appendix A4 Hydrogeological Assessment: Inventory of groundwater conditions and groundwater quality.

Appendix A5 Soils Assessment: Inventory of soil conditions and potential for contamination.

Appendix A6 Tree Inventory and Arborist Report: Field assessment of location, species, and condition of trees and woody vegetation (shrubs) on the site.

Appendix A7 Land Use Planning Assessment: Desktop assessment of area land use legislation and policy.

Appendix A8 Stage 1 - 2 Archaeological Assessment: Desktop and field assessment (where required) of potential for encountering archaeological resources during construction activities.

Appendix A9 Cultural Heritage Screening: Desktop review of potential cultural heritage buildings, landscapes and built features, and current cultural features.

Appendix A10 Air Quality Evaluation: Emissions profile of train and operations, and other local sources of noise, vibration, and air emissions.

Appendix A11 Preliminary Acoustic Assessment: Sources of noise and receptors.

Appendix A12 Traffic and Transportation: Report assessing traffic implications of construction activities and projected traffic conditions upon completion of the upgrades, as compared to current and projected future traffic conditions without the upgrades.



Introduction and Study Process February 23, 2018

Appendix A 13 Feasibility Study: Report outlining the need for upgrades to the Existing Lincolnville Layover and GO Station facilities.

Appendix B Record of Consultation and Consultation Report: Includes communications log and correspondence, meeting agendas, presentations and minutes, notices and media releases, and website content.



Project Description (Preferred Design Method) February 23, 2018

2.0 PROJECT DESCRIPTION (PREFERRED DESIGN METHOD)

The Lincolnville Layover and GO Station Improvements Project includes the proposed expansion of the Lincolnville Layover and GO Station to allow for additional overnight train storage through the addition of three new tracks and associated storage and maintenance infrastructure.

The conceptual design shown in this EPR includes mitigation measures to minimize or eliminate environmental effects, and to improve environmental features or functions where possible. The project details provided herein are considered conceptual, and are subject to refinement as planning progresses. Measures and dimensions are approximate and may vary slightly as they are refined during the detailed design process.

The key components of the design and construction activities are described below.

- The removal of existing platforms and replacement with storage tracks which may necessitate the realignment of existing storage tracks and associated facilities for a total of nine storage tracks.
- Upgrades to the existing systems, including but not limited to electrical, communication, and mechanical systems.

In addition, the following other improvements are required to facilitate the proposed work:

- Grading and drainage modifications, including upsizing an existing stormwater management pond, and the construction of a retaining wall.
- Two new diesel fueling stations will be installed adjacent to the tracks.
- Track construction and realignment of the existing tracks will be done in phases in order to maintain the yard operation and minimize effects on passenger service during the construction.

The proposed improvements will allow for additional train storage, while maintaining maintenance and fueling operations to current standards. The proposed improvements will allow full through movement for rail cars into and out of the MOW tracks and yard area, and allow for the continued use of existing utilities. Maintenance activities will remain the same, however will be expanded to accommodate the additional trains. Although track geometry and alignment will be adjusted for the Layover Facility, no change to the existing Stouffville rail corridor is required. GO Station operations will be maintained during construction through construction staging.





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LEGEND	
PROPOSED P.S. #8 TURNOUT	
EXISTING P.S.	\oplus
PROPOSED CENTERLINE TRACK	
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PROPOSED AND EXISTING BUMPING POSTS	+ +-
PROPOSED FOULING POINT	
GO COACH, 25.908m [85 ft]	
GO LOCOMOTIVE, 20.726m [68 ft]	

Project Description (Preferred Design Method) February 23, 2018

2.1 INFLUENCE OF CONSULTATION ON THE DESIGN

As a result of TPAP consultation activities, updates to the proposed design of the Lincolnville Layover and GO Station have been made to address comments received from project stakeholders.

Key design updates made in response to stakeholder comments include:

- Notes were added to design drawings to address groundwater recharge considerations.
- Notes were added to design drawings to address water balance and stormwater flow within the Study Area.

The following sections describe the details of the proposed design for the Lincolnville Layover and GO Station.

2.2 KEY DESIGN COMPONENTS

Key design components and other design details are illustrated conceptually in Figure 2-1. Based on the findings of the Feasibility Study, additional storage tracks are proposed southeast of the existing tracks and the existing storage tracks and associated facilities are proposed to be realigned. The proposed works will also include upgrades to the existing electrical and mechanical systems.

The proposed new tracks overlap existing landscape features such as drainage and graded slopes, the existing west parking lot and passenger pick-up and drop off (PPUDO) area, and various servicing buildings (two bike shelters, a pedestrian shelter and Ticket Vending Machine (TVM)), all of which will require additional changes to the site. Additionally, an existing parking area will be expanded and converted to an asphalt storage area. These improvements also require the relocation of the existing MOW tracks on-site. Encroachment on existing infrastructure will be managed through staging so that the existing Layover and passenger platforms can remain operational during construction.

The key design components of the proposed improvements are summarized below.

2.2.1 Platform Removal

The removal of existing platforms and replacement with storage tracks will be required. Construction will be staged to allow for platforms to remain open throughout construction activities, and will be replaced as construction progresses.

2.2.2 Track Work

Track geometry will change as a result of the proposed work. New switches will be added and minor realignment of existing tracks will be done in order to accommodate additional tracks.



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Track work will include alterations to access and service roads on the site to realign them with the new track geometry. Three additional tracks (tracks 8, 9, and 10) will be accommodated south of the existing tracks, and result in a total of nine storage tracks when the Project is completed.

2.2.3 System Upgrades

Upgrades to the electrical system are expected to include the addition of a new substation and a direct current (DC) battery room for the Facility, among other equipment changes to the medium voltage (MV) transformer, main switchboard, panels, and wiring. The current system connects to an existing hydro pole, and an additional pole will be required.

The electrical load and service capacity will be reviewed and adjusted as required during the design development and final stages of the project.

The substation and new station will require building services, including lighting, receptacles, fire detection, communication, closed-circuit television (CCTV) systems, and security systems. The building services shall be provided according to the requirements of the Ontario Electrical Safety Code.

Other mechanical improvements include air-brake cabinets, and a secondary containment liner. Process waste will be extended to accommodate new tracks, and a leak detection system will be modified to allow for extension for the new tracks.

Overhead supports will also be provided for future electrification to align with the long-term vision of the Metrolinx transit system.

2.2.4 Grading and Drainage Modifications

Grading will follow the Town of Whitchurch-Stouffville By-Law 2017-017-RE filling and site alteration standards. The additional three storage tracks required infringe on existing features such as ditching, graded slopes, and other infrastructure (parking, PPUDO, various servicing buildings). The design includes grading elements comprising of ditching to collect existing and proposed drainage. A retaining wall is required at the North-East portion of the site due to infringement on the sloped embankment. Access roads will be designed to drain into the drainage structures. Staging will be required to ensure that the existing Layover and passenger platforms remain operational during construction.

2.2.5 Site Servicing

Servicing for the Project will follow Town of Whitchurch-Stouffville and York Region requirements, and Ontario provincial and MOECC standards. The servicing infrastructure will consist of various stormwater management features to collect and store water, piping, trench drains, and drainage ditching with corrugated steel pipe (CSP) culverts to convey the site drainage.



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Sanitary and water are not required for expansion servicing. Metrolinx will utilize as much of the existing infrastructure as possible to promote positive drainage on the site.

The drainage from the Existing Layover Expansion will be added into the existing Channel Pond that runs through the site. The existing Channel Pond will be upsized to provide quality and quantity control for the proposed work along with any erosion controls required. The capacity of the exiting culverts will be analyzed and upsized if required. All MOECC and TRCA regulations will be adhered to.

2.2.6 New Diesel Fueling Stations

Two new diesel fueling stations shall be installed on concrete pads between Track # 8 and # 9, as well as east of Track # 10. It is anticipated that only one train will be fueled at any given time on the existing and new tracks. Diesel piping will be modified to accommodate two new fueling stations. Pumps and existing accessories will remain without upgrades.

Diesel exhaust fluid (DEF) dispensers and a stainless steel drip tray will be installed. The drip tray will be designed to tie into the existing drainage system.

2.3 CONSTRUCTION PHASING

Maintaining pedestrian use of the GO station will remain a priority throughout construction, which is set to begin in 2018. All existing site accesses will be maintained during construction. Preliminary construction staging plans are as follows:

- **STAGE 1**: Temporary platforms will be built and fare equipment will be relocated to new customer access. PPUDO being reconstructed, will remain open. Temporarily remove 73 parking spaces in the west parking lot due to limit of construction (80 parking stalls available); 414 parking spaces in eastern lot still available.
- **STAGE 2**: Restore 24 parking spaces to west parking lot (104 parking stalls available); all parking spaces in eastern lot still available. Limited access to GO Station Access during track cutover (estimated 72 hours).
- **STAGE 3**: Maintain 104 parking stalls available within west parking lot; all parking spaces in eastern lot still available. Limited access to GO Station Access during track cutover (estimated 48 hours).
- **STAGE 4**: Maintain 104 parking stalls available within west parking lot; all parking spaces in eastern lot still available. Limited access to GO Station Access during track cutover (estimated 48 hours).
- **STAGE 5**: Maintain 104 parking stalls available within west parking lot; all parking spaces in eastern lot still available. Limited access to GO Station Access during track cutover (estimated 48 hours).



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• **STAGE 6**: PPUDO will be relocated, and west parking lot to be removed all parking spaces in eastern lot still available.

It is projected that construction stages will maintain vehicular access and internal circulation at all times. A portion of parking stalls in the west parking lot will be lost during construction. The bus loop and PPUDO will be maintained during all stages, although temporary facilities may be provided as required. A final layout is being developed which includes a smaller PPUDO throughout the construction stage in its current location.

The GO Station Access may be closed for up to 72 hours at a time during Stages 2-5; alternate site access will be available during that time. No significant traffic effects are anticipated as a result of site traffic being diverted to an access referred to as the South Layover Access. The South Layover Access is accessible from York Durham Line. With traffic diverted to the South Layover Access, the Study Area's intersections continue to operate at a good level of service and within capacity during the weekday a.m. and p.m. peak hours.



3.0 EXISTING CONDITIONS

This Section of the EPR describes the existing environmental conditions within the Project Study Area (and broader Assessment Areas, where applicable). The existing conditions are used as the basis for measuring the potential environmental effects of the proposed works.

The following subsections describe the key environmental components of the site, such as natural, social, economic, and cultural conditions, including the following:

- Natural Environment
 - Vegetation and Vegetation Species at Risk
 - Wildlife and Wildlife Species at Risk
 - Surface Water and Aquatic Environment
 - Stormwater Management
 - Hydrology and Groundwater
 - Soils and Geology
 - Tree Inventory
- Social and Economic Environment
 - Land Use and Users Cultural Environment
 - Archaeology
 - Cultural Heritage
- Technical Environment
 - Air Quality
 - Noise and Vibration
 - Traffic and Transportation

Detailed information for each of the environmental components is provided in the background reports located in Appendix A.



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3.1 NATURAL ENVIRONMENT

The following sections describe existing conditions related to the natural environment. These include descriptions of:

- Study Area vegetation, including vegetation Species at Risk (SAR)
- Wildlife that was or could be observed within the Study Area, including wildlife SAR
- Surface water within and adjacent to the Study Area and the aquatic environment and species that identified surface water bodies support
- Built and natural features within the Study Area that manage the flow of stormwater within the Study Area
- The flow and quality of groundwater within and adjacent to the Study Area
- The quality of soils within the Study Area and the characteristics of area geology
- Existing trees growing within and adjacent to the Study Area

3.1.1 Vegetation and Vegetation Species at Risk

Vegetation includes plants and the combination of land-based natural features that provide habitat for plant and animal species, including plant species at risk. Species At Risk (SAR) are any plants, animals, birds or fish that are listed as endangered, threatened, special concern or extirpated on the Species at Risk in Ontario (SARO) List provided in O. Reg. 230/08.

3.1.1.1 Methodology

The existing natural environment conditions within 120 m of the Study Area (i.e., Assessment Area) were identified based on a desktop review of relevant secondary source information, as well as correspondence with the Toronto Region Conservation Authority (TRCA) and the Ministry of Natural Resources and Forestry (MNRF). Field investigations were carried out between November 2016 and July 2017 to supplement the existing secondary source information. A botanical inventory was conducted within the Study Area on July 26, 2017.

The MNRF's Natural Heritage Information Centre online database (NHIC 2015) and Land Information Ontario (LIO 2016) Natural Heritage Area Mapping tool were reviewed to identify potential Species at Risk (SAR), provincially rare species and natural areas, Areas of Natural and Scientific Interest (ANSI), and other significant features. Detailed vegetation community mapping and botanical inventories were conducted using the Ecological Land Classification (ELC) system.

Full detail on the vegetation and species at risk can be found in Appendix A1.



3.1.1.2 Existing Conditions

The following vegetation communities are present within the Study Area, and are delineated in Figure 3-1:

- Dry-Fresh Mixed Meadow Ecosite (MEMM3) A dry mixed meadow ecosite associated with fallow portions of the north of the Study Area. A variety of grasses, goldenrod and asters are present throughout.
- Cattail Graminoid Mineral Meadow Marsh Type (MAMM1-2) A small marsh community dominated by cattail and reed canary grass.
- Annual Row Crops (OAGM1) Annual row crops such as corn or soy beans.



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The vegetation species observed in the vicinity of the constructed stormwater management (SWM) feature within the Study Area (shown on Figure 3-1) were noted to be varied and not considered standard vegetation communities found naturally in the region. The SWM feature is described in more detail in Section 3.1.4 below.

In addition, the existing rail line is primarily a mowed grass feature that travels through the Study Area. There are no designated natural areas within the Study Area; however, the following are located within 1 km of the Study Area: Goodwood/Glasgow Wetland Complex; Stouffville Marsh; and Stouffville Forest. None of these features are considered to be close enough to be affected by the proposed improvements at the site.

A total of 67 species of vascular plants were recorded as part of the botanical inventory, of which 25 are native to Ontario and 42 are exotic species not native to the province. A complete list of plant species is identified in Appendix A1. Data from the MNRF indicated that a primary concern with plant SAR within the Assessment Area is Butternut. Habitat for Butternut and other SAR is considered absent following field investigations. No additional SAR species were recorded. None of the vegetation communities and/or species observed within the Study Area were considered provincially at risk or of conservation concern. No plant SAR were observed within the Study Area.

3.1.2 Wildlife and Wildlife Species at Risk

Wildlife and wildlife SAR refer to land-based animals (including mammals, amphibians and birds), that occupy the terrestrial environment for all or a part of their life cycle, including breeding, feeding, or stopover during migration. The presence or absence of significant wildlife habitat is considered indicative of the potential presence of wildlife.

3.1.2.1 Methodology

A desktop review was completed to determine the potential for the presence of SAR and provincially rare species within the Study Area and within 120 m of it. In addition to desktop reviews of secondary source information, information was gathered through correspondence with the MNRF. Following the review, field surveys were carried out between November 2016 and July 2017 to supplement the existing secondary source information. ELC community delineation was undertaken during field investigations within the Study Area to determine the extent of potential habitats of the identified species, and to observe if any SAR were present within the Study Area, or if conditions were conducive to SAR breeding or migration.

Rare or specialized habitats for Amphibian Breeding, Turtle Nesting, and Animal Movement Corridors were targeted as part of the field investigations because of the sensitivity of the habitat to construction disturbances.



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Due to the industrial nature of operations in the Study Area (increased noise, human activity, and reduced vegetation), as well as the poor quality of vegetated areas for habitat, feeding and nesting, it was assumed that potential stopover locations for migratory birds within the Assessment Area would not include the Study Area, as more suitable locations (more natural vegetation, naturalized water bodies, less pedestrian and vehicular traffic) are located in the vicinity of the site. As such, a full assessment of migratory bird activities was not undertaken as a part of the assessment of wildlife and SAR.

Full details on the wildlife and species at risk can be found in Appendix A1.

3.1.2.2 Existing Conditions

Potential habitats for four wildlife SAR were identified during preliminary screening: Snapping Turtle *(Chelydra serpentina)*, Barn Swallow (*Riparia riparia*), Eastern Meadowlark (*Sturnella magna*) and Bobolink (*Dolichonyx oryzivorus*). In addition, screening determined the potential for habitat areas to exist within the Assessment Area that could support bat species, turtles and amphibians, or be used as migration corridors. The results of field work to verify the presence or absence of species, their habitats, or migration corridors are presented below.

3.1.2.2.1 Bobolink and Eastern Meadowlark

Meadow ELC vegetation communities are considered potentially suitable habitat for Bobolink and Eastern Meadowlark. At the time of field investigation, Eastern Meadowlark were not observed; however, a single male Bobolink was observed to be foraging in the meadow community, and is inferred to be breeding in nearby hayfields based on the poor quality of habitat on-site (i.e., small size, low graminid/forb cover), and an observed lack of song or alarm when encountered. As such, the findings of the field surveys indicated Bobolink and Eastern Meadowlark were not breeding on site.

To confirm the absence of Bobolink breeding on-site, an Information Gathering Form (IGF) was submitted to the MNRF for review. A response from the MNRF was received on September 5, 2017, indicating that they concurred with the above findings.

3.1.2.2.2 Barn Swallow

Barn Swallow nests were not observed on-site. In addition, no structures were observed to have suitable covered ledges for this bird species.

3.1.2.2.3 Endangered Bat Species

Background data from the Atlas of the Mammals of Ontario and the MNRF indicated that three bat SAR, including Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-coloured Bat (*Perimyotis subflavus*), had the potential to occur within the Assessment Area. Field investigations assessed natural and anthropogenic features for



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maternity roost habitat suitability. No suitable natural features were present, and no suitable anthropogenic structures were identified (i.e., buildings lacked openings for bat entry and exit).

3.1.2.2.4 Amphibian Breeding Habitat

Aquatic features and other temporary pools within the Study Area are suitable for amphibian breeding. The amphibian survey carried out at the MAMM1 (Cattail Graminoid Mineral Meadow Marsh Type) pond, shown in Figure 3-1, identified a maximum call count of one Green Frog (*Lithobates clamitans*). In addition, the anthropogenic SWM feature identified a maximum call count of one for American Toad (*Anaxyrus americanus*). As such, these features are not considered to be significant habitat.

3.1.2.2.5 Turtle Nesting Habitat

Road or rail corridor shoulders containing loose gravel and/or exposed soil present suitable turtle nesting areas when within range of aquatic features. However, they are not considered candidate SWH. As such, these on-site features are not considered significant habitat. The MAMM1 pond feature was the only candidate habitat for seasonal Turtle Wintering. However, no turtles were observed during 5 basking surveys completed within this feature, and as such, the pond is not considered to be a significant Turtle Wintering Area.

3.1.2.2.6 Animal Movement Corridors

Wildlife traditionally use Migration Corridors to move from one habitat to another, often in response to seasonal habitat changes. These corridors are only considered when wetland breeding amphibian habitat is identified for select species. The surveys for on-site Amphibian Breeding Habitat demonstrated that the existing on-site features are not significant.

3.1.3 Surface Water and Aquatic Environment

The surface water and aquatic environment is encompassed within all permanent bodies of still or flowing water and their riparian area (banks), including all parts of the bodies in which aquatic species may spend parts of their lifecycles.

3.1.3.1 Methodology

A desktop assessment was performed to identify existing water bodies and potential fish habitat within an Assessment Area consisting of the Reesor Creek subwatershed of the Duffins Creek watershed. Field investigations were then conducted within the Study Area to confirm the limits and characteristics of water bodies and aquatic habitat within the Study Area.

Full details on water bodies and fisheries habitat can be found in Appendix A2.



3.1.3.2 Existing Conditions

A desktop analysis and subsequent field investigation identified three aquatic features present within the Study Area (illustrated in Figure 3-2), including a pond, a stormwater management (SWM) feature, and a swale.

The pond, noted at the north end of the site, generally consisted of open water containing sparse submergent aquatic vegetation and surrounded by cattail marsh. The pond was observed to be receiving flows from the north through roadside drainage ditches and was not connected to any aquatic features.

The constructed SWM feature, located along the east side of the Study Area, was noted to consist of a vegetated drainage swale. The Lincolnville Layover and GO Station was reportedly constructed prior to 2012, and is not connected to a waterbody that contains fish.

A straightened, grass-lined swale lined with river stone traversed the central portion of the Study Area, identified as Reach 1, originating north of the existing parking area and flowing in a southerly direction towards Bethesda Side Road before discharging into the south end of the constructed SWM feature. At the southeast corner of the site, water was observed to flow through a concrete weir and culvert prior to flowing beneath Bethesda Road through a corrugated steel pipe culvert and ultimately discharging into Reesor Creek (classified in the Fisheries Management Plan for Duffins and Carruthers Creeks (TRCA 2004) as Small Riverine Coldwater Habitat that supports coldwater fish communities).

Based on the findings of the assessment, Reach 1 consists of a vegetated swale that is poorly connected to downstream habitats and does not function as fish habitat. In addition, the constructed SWM feature located along the east boundary of the Study Area, and pond located within the north portion of the Study Area are not connected to any downstream aquatic habitats and are not considered fish habitat.

It should be noted that while Reach 1 does not function as fish habitat, it contributes flow and nutrients to downstream habitats during spring freshet and storm events. Reach 1 meets the definition of a Headwater Drainage Feature (HDF) as defined in the Evaluation, Classification and Management of Headwater Drainage Features Guidelines (TRCA and CVC 2014). An assessment was completed, in accordance with the guidelines, to determine the function of the HDF and recommend management options that will maintain its function within the watershed. Based on the assessment, Reach 1 has intermittent flow, limited riparian and fish habitat, and functions as a contributing feature to Reesor Creek. Table 3-1 provides a summary of the HDF assessment.



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Table 3-1: Headwater Drainage Feature Assessment

Drainage Feature Segment	Hydrology	Modifiers	Riparian	Fish Habitat	Terrestrial Habitat	Management Recommendation
1	Contributing	N/A	Contributing	Contributing	Limited	Mitigation



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3.1.4 Stormwater Management

Stormwater management refers to the elements of the environment (natural or human-made) that affect the flow of precipitation through the environment once it hits the ground.

3.1.4.1 Methodology

A Stormwater Management Report was prepared for the Project that included a desktop review of available source material that included hydrogeological assessments conducted in the area, and relevant guidelines and manuals including from Municipal sources, MOECC and TRCA, as relevant. The Assessment Area includes the Lincolnville Layover and GO Station property, and the drainage area in which it sits.

Further details on the stormwater management conditions within the Study Area can be found in Appendix A3.

3.1.4.2 Existing Conditions

The Site has a total area of 12.4 ha and receives an additional 19.6 ha of external drainage. Quantity and quality controls along with conveyance structures are currently in place within the Study Area. The controls described below are illustrated in Figure 3-3.

Ditches D1 and D2 along with culvert C1 collect drainage from in and around the tracks, along with flow from external areas both west and north of the Site. Ditches D1 and D2 and culvert C1 discharge into segment A of the Channel Pond (Channel Pond (A)).

Drainage from the bus garage area adjacent to York Durham Line is collected by catch basins and piped to segment B of the Channel Pond (Channel Pond (B)). Before discharging to Channel Pond (B), drainage is passed through an oil grit separator unit as well as a grassed swale to provide water quality treatment.

Drainage from parking areas on the southern half of the Site are collected by catch basins and conveyed to a ditch on the Bethesda Road. Overflows from this area are directed to the downstream end of Channel Pond (B) via a rip-rap lined channel. Quality treatment for these areas is provided by an oil grit separator unit. Quantity control is provided through oversized pipes and surface ponding in this area.

Channel Pond (A), culvert C2 and Channel Pond (B) form an engineered channel with a rifflepool structure that was designed for conveyance and storage (3870 m³ of active storage available). A control manhole at the downstream end of Channel Pond (B) restricts outflow rates from the system during major events.

Flow from the control manhole at the downstream end of Channel Pond (B) discharges to a roadside ditch adjacent to Bethesda Sideroad and is conveyed under Bethesda Sideroad into an undefined tributary of the Reesor Creek, eventually joining Duffins Creek to the south.




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3.1.5 Hydrology and Groundwater

Hydrology and groundwater refer to below-ground water conditions, including the flow of water from the surface into the groundwater, and the presence or absence of drinking water wells.

3.1.5.1 Methodology

A desktop study of policies related to groundwater flowing through the Study Area was undertaken to determine how the existing Layover Facility is affected by government policy. Information and clarification was also gathered from the TRCA and the Regional Municipality of York. A geotechnical investigation was carried out within the Study Area in 2017, from which water samples were obtained and analyzed. It involved the drilling of 9 boreholes to the east of the existing storage tracks to depths of approximately 3-5 m. Existing literature and mapping was reviewed, including a 2007 Geotechnical Investigation of the Study Area, completed by others, and the MOECC's water well records database within 500 m of the site.

Full detail on groundwater conditions can be found in Appendix A4.

3.1.5.2 Existing Conditions

The Town of Whitchurch-Stouffville is supplied by a groundwater supply system consisting of 5 wells. The Study Area lies within the combined wellhead protection areas (WHPA) for three of these supply wells, within a 25-year time of travel zone.

The Site falls within WHPA-D of the Whitchurch-Stouffville Water Supply System. The Site is also located in a Wellhead Protection Area Q1/Q2 with a moderate stress level. The Study Area falls within the Settlement Development Area of the ORMCP, and extra site-specific plans and mitigation measures may be warranted as dictated by both the ORMCP and the York Region Official Plans.

The aquifer in this area is mapped with a vulnerability score of six or less, meaning that there are no significant chemical, pathogen or dense non-aqueous phase liquids (DNAPL) threats that may be identified in this area. Under the *Clean Water Act*, and based on the location of the Lincolnville Layover and GO Station, certain industrial chemicals, including DNAPL, are not allowed to be stored in any way, in any amounts, at the site.

Two separate data sources available from the TRCA were evaluated with respect to Significant Groundwater Recharge Areas (SGRA) and Highly Vulnerable Aquifers (HVA). Based on the most conservative of these two data sources, much of the Site is mapped as a SGRA, with the southeast portion of the Site identified as an area with a HVA (Region of York, 2016).

There are approximately 30 domestic water supply wells located within the 500 m Assessment Area. All but three of these domestic water supply wells are located more than 100 m from the Study Area. The nearest municipal drinking water supply is associated with groundwater supply wells for the town of Whitchurch-Stouffville, located about 1 km to the south. Groundwater levels



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reported within these wells generally indicated that a confined sand aquifer is present between approximately 5 m below ground surface (bgs) and 15 m bgs.

A 2007 geotechnical investigation found that groundwater samples taken from the Study Area met the applicable MOECC Standards (as per O. Reg. 153/04) for the parameters analyzed and no issues of potential environmental concern associated with on-site groundwater quality have been identified to date.

The boreholes drilled in 2017 were dry upon completion of the drilling, with the exception of two borehole locations, where free groundwater was measured at depths of 3.2 m bgs and 5.2 m bgs during drilling. Borehole locations and wells are shown in Figure 3-4.







3.1.6 Soils and Geology

Soils and geology refer to surface and below-ground conditions of the organic and inorganic compounds that make up the soil and rock that support plant and animal life and human activities and structures, including chemical or other compounds that may have entered the soil as a result of human activities.

3.1.6.1 Methodology

The Assessment Area consists of the Lincolnville Layover and GO Station, in addition to the surrounding area within 500 m of the site, for which a desktop assessment was undertaken. A geotechnical investigation was carried out within the Study Area in 2017, from which soil samples were obtained and analyzed. It involved the drilling of 9 boreholes to the east of the existing storage tracks to depths of approximately 3-5 m. Existing literature and mapping was reviewed, including the results of a 2016 site survey, a 2003 Phase I Environmental Site Assessment (ESA) and a 2007 Geotechnical Investigation at the site, completed by others.

Full detail on soils can be found in Appendix A5.

3.1.6.2 Existing Conditions

The Study Area is generally flat, and slopes in a southerly direction from approximately 306 m above sea level (asl) within the north portion of the Study Area to approximately 300 m asl within the southeast portion.

The Study Area is situated within the Oak Ridges Moraine (ORM) and contains an abundant thickness of granular water-bearing strata within its core overlain on bedrock consisting of Ordovician brown and grey shales located at approximately 60 m below ground surface (bgs).

Surficial geology for the northeast portion of the Study Area is characterized primarily by massive-well laminated deposits of fine-textured glaciolacustrine silt and clay, and by silty to clayey till within the southwest portion of the site. In general, the soil stratigraphy encountered during drilling consisted of an asphalt-paved surface underlain by sand with gravel fill (or a surface vegetation with associated topsoil), overlying a silty clay fill underlain by native sandy silt clay till and silty clay till soils. The silty clay fill materials were observed at depths ranging between 0.9 m to 2.2 m bgs. Bedrock was not encountered during drilling.

A 2003 Phase I ESA did not identify any issues of potential environmental concern within the Study Area, as defined by O. Reg. 153/04. A 2007 Geotechnical Investigation found that soil samples taken from the Study Area met the applicable MOECC Standards for the parameters analyzed. In addition, no issues of potential environmental concern associated with soil quality within the Study Area have been identified to date.



3.1.7 Tree Inventory and Arborist Report

Trees assessed on and in the vicinity of the property include those that have been planted by humans as well as those that have been seeded through natural processes.

3.1.7.1 Methodology

An Arborist Report was developed to identify and determine potential effects to trees and vegetation in relation to the proposed works. Inventoried tree locations were identified through survey by an Ontario Land Survey in conjunction with the project design. Tree bylaws, policies, and guidelines were reviewed for the Town of Whitchurch-Stouffville, TRCA, and the Region of York to identify permitting requirements and guidelines for the methodology used for the inventory and assessment. The Arborist Report is available in Appendix A6.

The tree inventory and assessment was conducted on September 13, 2017. The inventory and Assessment Area was located within the property boundary, and included trees on adjacent lands that overlapped or were very near the property boundary and that may be affected by the expansion or proposed grading work.

The detailed Inventory data includes tree species, general health condition, diameter at breast height (DBH), and dripline radius. Trees were tagged with a numbered steel tree tag. Trees that could not be physically tagged were provided an identification letter such as, 'A1', A2', 'A3', etc. Trees and shrubs located in the immediate vicinity of the SWM ponds were identified as areas, for example 'Area 1', rather than as individual trees. The tree effects and preservation and protection areas were determined based on the construction limit area identified by Stantec engineering.

3.1.7.2 Existing Conditions

The Study Area includes predominantly newly planted trees, which line the parking lot and entrances of the Facility. There are mature trees included in the inventory that are located on the boulevards of Bethesda Sideroad and York Durham Line.

Tree species included in the inventory are: Fir (*Abies* spp.), Freeman Maple (*Acer x freemanii*), Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Sugar Maple (*Acer saccharum*), Serviceberry (*Amelanchier* sp.), White Ash (*Fraxinus americana*), Honeylocust (*Gleditsia tiracanthos 'inermis'*), Juniper sp. (*Juniperus* sp.), Apple spp. (*Malus* sp.), Cottonwood (*Populus deltoides*), White Spruce (*Picea glauca*), Colorado Blue Spruce (*Picea pungens 'glauca'*), Austrian Pine (*Pinus nigra*), White Pine (*Pinus strobus*), Scots Pine (*Pinus sylvestris*), Willow spp. (*Salix* sp.), Eastern White Cedar (*Thuja occidentalis*), and Littleleaf Linden (*Tilia cordata*).



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Species included in the SWM pond appeared to be well established saplings. The inventory included the following species: Freeman Maple, Sugar Maple, Alder spp. (*Alnus* sp.), Red Osier Dogwood (*Cornus sericea*), Grey Dogwood (*Cornus racemosa*), Juniper spp., Cottonwood, Trembling Aspen (*Populus tremuloides*), Staghorn Sumac (*Rhus typhina*), Currant spp. (*Ribes* sp.), Black Locust (*Robinia pseudoacacia*), and Willow sp.

3.2 SOCIAL AND ECONOMIC ENVIRONMENT

The following section describes existing conditions related to the social and economic environment. This includes descriptions of the political and policy designations associated with the Study Area and the land uses allowed as a result. It also includes a description of the ways in which people use the land within the Study Area.

3.2.1 Land Use and Users

Land use refers to the ways in which humans modify the landscape to support their everyday living activities, as well as human activities that encourage the use of land by plants and animals. Land users are those humans who undertake activities within the landscape.

3.2.1.1 Methodology

A desktop assessment was undertaken to review existing planning documents and mapping. The desktop review included a review of the land designations within the Study Area and adjacent properties, as well as a desktop search of the Town of Whitchurch-Stouffville Official Plan and the Comprehensive Zoning By-Law 2010-001-ZO to determine the uses of the adjacent lands. Proposed construction activities were reviewed to understand the conditions of and impacts on land users.

Full detail on land use conditions can be found in Appendix A7.

3.2.1.2 Existing Conditions

The Study Area is a designated Major Transit Station Area in the Town of Whitchurch-Stouffville Official Plan Amendment No. 137. Permitted uses under this designation allow for transportation and related ancillary uses, including maintenance, industrial and commercial.

The Town of Whitchurch-Stouffville land use policies identify the need to improve access to the GO Station through various modes of transportation.

The Study Area is zoned Institutional (I) under the Town of Whitchurch-Stouffville Zoning By-law 2010-001-ZO. This zoning designation permits a range of land uses, including Government Services.

In general, the Study Area is situated within a predominantly rural area. Land uses surrounding the Study Area currently consist of a mix of rural, residential, agricultural and recreational



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(Granite Golf Club) to the north; York-Durham Line followed by agricultural to the east; Bethesda Side Road followed by agricultural and commercial (i.e., Apache Freight Lines and Sicilia Gardens) to the south; and, commercial/industrial (Barry Welding, Todd Pools, etc.), agricultural, Tenth Line and recreational (i.e., Sleep Hollow Golf and Country Club) to the west. Zoning and property boundary information is provided in Figure 3-5.

The Study Area offers facilities for GO Train passengers to park cars, pick-up and drop off passengers, purchase tickets, and wait to board trains and buses. Pedestrian navigation through the site is provided through paths and walk-ways, and is facilitated by way-finding signage. Access to the Study Area is provided for vehicles and cyclists from Bethesda Side Road near the southwest corner of the property and from York Durham Line near the northeast corner of the property.







Community of Stouffville Secondary Plan

Schedule F Land Use and Transportation Plan



3.3 CULTURAL ENVIRONMENT

The following sections describe existing conditions related to the cultural environment, including buried archaeological artefacts, and surface-level built structures and landscapes considered to be of cultural heritage value.

3.3.1 Archaeology

Archaeology refers to aspects of the environment that provide insight or information on past human use of the landscape that have been buried below the surface of the soil.

3.3.1.1 Methodology

A Stage 1 Archaeological Assessment (AA) was carried out to identify the potential for archaeological resources within the Study Area, consisting of the Lincolnville Layover and GO Station, and included a channeled tributary of West Duffins Creek and Stouffville Creek. The Assessment Area for the Stage 1 Archaeological Assessment is illustrated in Figure 3-6 The Stage 1 AA included a desktop review of relevant historical information, as well as a field visit to observe current conditions within the Study Area. Based on the outcome of the Stage 1 AA, a Stage 2 AA was conducted, involving test pit surveys within the site where proposed infrastructure could be located within areas of archaeological potential.

Archaeological assessments were submitted to the Minister of Tourism, Culture and Sport (MTCS) on August 25, 2017 as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18 (Government of Ontario 1990a). Reports are reviewed to confirm that they address the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations address the conservation, protection and preservation of the cultural heritage of Ontario. When fieldwork and reporting requirements have been addressed to the satisfaction of the MTCS, a letter will be issued by the Ministry stating that the report has been entered into the Ontario Public Register of Archaeological Reports. This letter will quote the recommendations of the archaeological assessment, which will either recommend additional stages of assessment, or state that no further work is required. The Stage 1 and2 AA were entered into the Ontario Public Register of Archaeological Reports on September 5, 2017 and on November 1, 2017, respectively.

Full detail on the Stage 1 and 2 Archaeological Assessments can be found in Appendix A8.

3.3.1.2 Existing Conditions

Archaeological potential can be identified based on a variety of factors, including proximity to previously registered archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of an area. Given the proximity of the Study Area to water, including Stouffville Creek, the Study Area and surrounding area are considered to have Indigenous archaeological



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potential. In addition, historic transportation routes surround the site, including the Toronto and Nipissing Railway, Bethesda Side Road and Tenth Line. As such, the Study Area and surrounding area are considered to have Euro-Canadian archaeological potential.

The findings of the Stage 1 AA indicated that the majority of the Study Area (i.e., approximately 86%) has been previously subjected to deep and extensive disturbance, which has removed any archaeological potential for these areas. However, a Stage 2 assessment by test-pit survey was recommended for the currently undeveloped portion, located within the southeast portion of the Study Area.

A Stage 2 AA was subsequently undertaken. The findings indicated that the area subjected to test pit survey was previously disturbed, and that no further archaeological investigation is required within the Study Area.

3.3.2 Cultural Heritage

Cultural heritage refers to aspects of the environment that provide insight or information on past human use of the landscape that are visible to the human eye, and include buildings, landscapes, and vegetation.

3.3.2.1 Methodology

A Cultural Heritage Screening Report (CHSR) was completed to identify properties in the vicinity of the Study Area that may have known or potential cultural heritage value or interest (CHVI). Properties within 50 m of the Study Area were screened in consideration of the 2013 Metrolinx Interim Cultural Heritage Management Process, and based on a desktop review of available historical information and mapping, as well as consultation with the MTCS, Ontario Heritage Trust, Town of Whitchurch-Stouffville and the Township of Uxbridge. In addition, a field visit was conducted to confirm and supplement the findings of the desktop review. The Assessment Area for the Cultural Heritage Screening is illustrated in Figure 3-7.

In accordance with the Metrolinx Interim Cultural Heritage Management Process, properties located within 50 m of the Study Area were screened for CHVI based on a series of questions related to age, potential cultural heritage value or interest using O. Reg. 9/06 and proximity to known heritage properties, as well as based on the following considerations:

- Potential Heritage Property: The property is owned or occupied by Metrolinx
- Conditional Heritage Property: The property is not owned or occupied by Metrolinx, or
- Adjacent Land: The property is adjacent to a protected heritage property.

Full detail on cultural heritage conditions can be found in Appendix A9.



3.3.2.2 Existing Conditions

Based on the findings of the cultural heritage screening, five properties located within 50 m of the northwest and northeast boundaries of the Study Area were identified as Conditional Heritage Properties. These properties are outlined in Figure 3-7. There are no properties listed and/or designated under the *Ontario Heritage Act* present within and/or in the vicinity of the Study Area. However, two properties, each of which is located immediately west of the Study Area, are listed in the Town of Whitchurch-Stouffville Built Heritage Inventory. None of the Conditional Heritage Properties are located within the Study Area, with some of the properties being over 100 m from the boundaries of the subject site. The proposed construction activities will take place entirely within the boundaries of the Study Area, therefore it is not anticipated that the construction will result in any changes to the Conditional Heritage Properties and no further heritage evaluation is required.



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3.4 TECHNICAL ENVIRONMENT

The following sections describe existing conditions related to the technical environment. These include descriptions of:

- The quality of the air within the Study Area and emissions emanating from activities within the Study Area.
- Emissions of noise and vibration emanating from the Study Area.
- The movement of cars and other vehicles, in the vicinity of, into, and within the Study Area, including parking options within the Study Area.

3.4.1 Air Quality

Air quality refers to the presence or absence of substances in the air that could cause harm to humans in large enough quantities. This includes substances in gaseous or solid (particulate) form.

3.4.1.1 Methodology

To evaluate existing air quality and potential changes associated with the future expansion at the site, a screening level air quality assessment was undertaken. Background air quality for representative contaminants of concern (COC) was established based on review and analyses of ambient monitoring data from available National Air Pollution Surveillance Network (NAPS) or MOECC-operated monitoring stations considered to be representative of the Study Area. Local air quality effects were assessed by estimating contaminant concentrations at representative sensitive receptors (e.g., residential, school, day care, long-term care land uses) located within 500 m of the Study Area and comparing them to applicable regulatory criteria. The applicable air quality thresholds include the Ontario Ambient Air Quality Criteria (AAQC) (MOECC, 2012), the National Ambient Air Quality Objectives (NAAQOs) (CCME, 1999), and the Canadian Ambient Air Quality Standards (CAAQS) (CCME, 2012). Representative worst-case contaminants were selected for more detailed analysis, including emission and dispersion modelling. Air quality analysis focused on the changes in ambient air quality that can be expected from the proposed Project, but did not consider the broader air quality effects of increased train service on the rail corridor.

Full details on air quality conditions can be found in Appendix A10.

3.4.1.2 Existing Conditions

The Assessment Area consists of a mix of land uses, including institutional, agricultural, environmental, and residential zones. Agricultural and environmental zones are located to the north and east of the Lincolnville Layover and GO Station, and to the west is an Oak Ridges Moraine Countryside zone. Residential zones are located further south, with agricultural and



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environmental zones to the north and east. Commercial zones are located to the southeast. Land uses that contain residential dwellings, schools, day care facilities, long-term care facilities or other institutional uses were selected as special receptors for the air quality study.

Air contaminants of concern within the Study Area are associated with diesel and gasoline combustion from road traffic and operation of diesel locomotives products of diesel and gasoline combustion associated with the operation of vehicles and diesel locomotives. To assess air quality, a representative worst-case contaminant for each type of contaminants studied was selected for a more detailed analysis. If the selected worst-case contaminants were assessed to be reasonably low-risk, then the other contaminants in the group would be acceptable. Representative contaminants studied were Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Particulate Matter (PM) acrolein, benzene, lead and Benzo(a)pyrene. While greenhouse gases (ghg) are an important factor to consider in the review of effects on air quality, it has been assumed that the reduction in vehicle miles driven overall will limit the emission of ghg to current or better-than-current levels as a result of more public transit trips taken once the improvements to the Stouffville rail corridor are complete. This is addressed further in Section 5.0.

Twelve sensitive receptors were identified within the Assessment Area, all of which consisted of residential land uses. The locations of sensitive receptors are shown in Figure 3-8.

Background concentrations of air quality COCs were well below their applicable threshold criteria for all of the representative contaminants studied except for one. The annual background concentration of benzene is at 90% of the criteria. Background concentrations of benzo[a]pyrene (B[a]P) for both 24-hour and annual averaging periods exceed the criteria by 25% and over 230%, respectively, but this background exceedance of the AAQC for B[a]P are commonly measured in Ontario, including in rural areas. Background air quality levels are summarized in Figure 3-8 and Table 3-2, on the following pages.







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	Criterion (µg/m³)			Background Concentrations in (µg/m ³)				Percentage of Criterion				
	1-hr	8-hr	24-hr	Annual (or Other)	90 th Percentile							Annual
Contaminant					1-hr	8-hr	24-hr	Annual (or Other) Mean	1-hr	8-hr	24-hr	(or Other)
NO ₂	400 ^a	-	200	60 ^b	31		27	15	8%	-	14%	24%
СО	36200ª	15700	-	-	475	437		307	1%	3%	-	-
PM _{2.5}	-	-	30 ^a		14.2	-	12.8	6.6	-	-	- c	_ c
			28 °	10 °								
			27 ^d	8.8 ^d								
Acrolein	4.5	-	0.4		-	-	0.026	0.013	-	-	7%	-
Benzene	-	-	2.3 ^a	0.45 ^a	-	-	0.64	0.40	-	-	28%	90%
B[a]p	-	-	0.00005	0.00001 ª	-	-	6.26E-05	3.31E-05	-	-	125%	331%
Lead	0.5	-	-	0.2 (30 days)	-	-	0.0065	0.0042 (30 day)	-	-	1%	2% (30 days)

Table 3-2: Summary of Background Air Quality Levels

a. Ontario Ambient Air Quality Criteria (AAQC).

b. National Ambient Air Quality Objective (NAAQO).

- c. 24 Hour and Annual Canadian Ambient Air Quality Standard (CAAQS) for Respirable Particulate Matter, effective by 2015. The 24hour Respirable Particulate Matter Objective is referenced to the 98th percentile daily average concentration averaged over 3 consecutive years. The annual Respirable Particulate Matter Objective is referenced to the 3-year average of the annual average concentrations. The CAAQS is shown here for reference and not directly comparable to the baseline concentrations presented in the table.
- d. 24 Hour and Annual CAAQS, effective by 2020. The 24 hour CAAQS is referenced to the 98th percentile daily average concentration averaged over 3 consecutive years. The annual CAAQS is referenced to the 3-year average of the annual average concentrations. The CAAQS is shown here for reference and not directly comparable to the baseline concentrations presented in the table.



3.4.2 Noise and Vibration

Noise and vibration are the perceptible sound and movement that can be generated by an energy source and can result in nuisance or, if strong enough, effects to human health or built structures.

3.4.2.1 Methodology

A predictive noise analysis was carried out to evaluate noise effects on sensitive receptors (i.e., representative locations with noise sensitive areas, including residences, daycares, schools, and churches) associated with existing site operations and the proposed future improvements to the Lincolnville Layover and GO Station. The methodology for the predictive analysis was in accordance with the GO/MOECC Draft Noise and Vibration Assessment Protocol (MOECC/GO Protocol). This desktop analysis includes a review of existing noise sources and existing points of reception (PORs) that may be affected by noise sources. The Assessment Area for the predictive analysis includes the Study Area and the surrounding area extending 500 m from the Study Area. The Assessment Area and identified PORs are illustrated in Figure 3-9.

The draft GO/MOECC Noise and Vibration Assessment Protocol (MOECC/GO Protocol) provides limits with respect to noise and vibration associated with project construction and operation for GO/Metrolinx rail projects. Under the draft provisions a Layover area is defined as an area dedicated to overnight storage of GO trains. As such, noise produced by the operation of the Layover must not exceed 55 dBA at a sensitive receptor. There are no vibration limits for a Layover location.

Noise and vibration analysis focused on the changes in noise and vibration that can be expected from the Project.

Full detail on the acoustic assessment can be found in Appendix A11.

3.4.2.2 Existing Conditions

The Study Area's train-related operation includes moving and idling trains, as well as the intermittent operation of an emergency generator. The Layover Facility accommodates six trains that can be parked overnight. During the morning peak hours these trains leave, one after the other; a train typically warms up and exits the Layover area, boards passengers, and departs the nearby station approximately every 30 to 40 minutes until all six trains have left the Study Area. Similarly, in the afternoon peak hours, trains arrive to drop passengers, and subsequently enter the Layover area to be parked overnight. The typical arrival interval is approximately every 30 to 40 minutes until all six trains have arrived for overnight parking.

During off-peak times, GO Transit bus service runs from the Lincolnville GO Station with a service frequency of approximately every 30 to 40 minutes.



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No impulsive noise sources are currently expected within the Study Area. The non-impulsive sources are associated with regular operation (idling and moving trains) and the Layover, as well as emergency equipment. Each train could idle for up to 75 minutes prior to departure in the morning and could stop as soon as they arrive in the evening. A site plan showing non-negligible noise sources in the Study Area is provided in Appendix A11.

Sound level measurements were taken at a representative Metrolinx site. Results of the Noise and Vibration Assessment can be found in Section 4.4.2.



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3.4.3 Traffic and Transportation

Traffic and transportation elements of the environment encompass all infrastructure and activities that help people to move from place to place.

3.4.3.1 Methodology

A review of available mapping and site visits were performed to better understand the existing transportation conditions within the Assessment Area. The Assessment Area is generally bounded by York Durham Line (CR 30) to the east and Bethesda Side Road to the south, and includes the intersections and roadways surrounding the Study Area.

A horizon year of 2018 was considered for analysis of all Assessment Area intersections, which represents the anticipated construction period. Using the population and employment projections for Whitchurch-Stouffville in the Regional Municipality of York's Official Plan (April 2016), a 2.3% per annum growth rate was derived. The background growth rate is applied to the base year traffic volumes (2017) to estimate the future background growth representing general population and employment increases in the City in 2018. The future traffic volumes during the 2018 construction year for the weekday a.m. and p.m. peak hours were analyzed.

Two conditions were used to consider construction effects:

- Potential Effect on Traffic Operations during Construction with No Closures
- Potential Effect on Transportation Operations during Construction with Temporary Closures

The Traffic Impact Study considered operation effects by using the horizon years of 2019 and 2031 for analysis of all Assessment Area intersections, which represented the full build-out of the subject development and the Metrolinx transit network plan horizon year. Similar to 2018 forecasting, using the population and employment projections for Whitchurch-Stouffville in the Regional Municipality of York's Official Plan (April 2016), the following background traffic growth rate was derived:

- 2019 Horizon Year: 2.3% per annum growth rate
- 2031 Horizon Year: 1.2% per annum growth rate

The background growth rates are applied to the base year traffic volumes to estimate the future background growth representing general population and employment increases in the City.

Full details of the traffic and transportation analysis are available in Appendix A12.



3.4.3.2 Existing Conditions

Existing transportation components, as described below, are shown on Figure 3-10. York-Durham Line consists of a two-lane arterial roadway with a posted maximum speed limit of 60 km/h. This north-south roadway forms an unsignalized t-intersection with Bethesda Side Road, with stop control on the eastbound approach. Tenth Line is a two-lane, north-south arterial road with a posted maximum speed limit of 60 km/h, and forms an unsignalized intersection with Bethesda Side Road with stop control on the eastbound approach. Tenth Line is a limit of south arterial road with a posted maximum speed limit of 60 km/h, and forms an unsignalized intersection with Bethesda Side Road with stop control on the eastbound approach. Tenth Line is located to the west of the Study Area, west of the Stouffville GO mainline track.

Bethesda Side Road is a local road, which provides a connection between Tenth Line to York-Durham Line, as well as bus and vehicle access to the existing Lincolnville GO Station and the MOW yard area and tracks.

The GO station consists of one single-sided passenger platform, PPUDO, bus loop, two bus shelters and two bike shelters. Access to the passenger platform is provided via two concrete pathways to the bus loop, bus and bike shelter, vehicle parking areas and PPUDO. Vehicle access to the GO Station amenities is shared with the GO train and bus Facility on the east side of the property along York-Durham Line. Additional vehicle access is provided via Bethesda Side Road, and shared with the entrance to the bus loop. Both vehicle entrances provide access to the on-site parking areas. Internal access roads have a posted maximum speed limit of 25 km/h and 15 km/h, respectively.

Bus service at this location is offered by northbound routes to Uxbridge (i.e., routes 70-B and 71-A and 71) and southbound routes to Stouffville, Mount Joy, Markham, Centennial, Unionville and Union Station (i.e., Routes 70 and 71-A and C)1 of the Stouffville Corridor. There is no local (i.e., York Region Transit) or other transit/bus service operating and/or connecting at this location. North-east of Lincolnville, the service is extended to Goodwood and Uxbridge via bus only. To the south, the Stouffville GO rail corridor continues into the City of Toronto, and eventually to Union Station.

Two parking areas (the "West Parking Area" and the "East Parking Area") and bus platforms servicing the station are located immediately southeast of the storage tracks. The existing GO Station provides parking space for 567 standard vehicles, and 2 electric vehicle and associated charging units. Designated Carpool parking is also available at this site.

Pedestrian access to trains is provided at a side platform located on the east side of the storage tracks.



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The existing Lincolnville GO Station primarily serves the neighbourhoods located to the south of the Facility. Based on Metrolinx's cordon counts collected in the fall 2016, recent peak ridership details are as follows:

Morning (AM) Peak Hour	211 average rail passenger boardings
	22 average bus passenger alightings
Evening (PM) Peak Hour	233 average rail passenger alightings
	22 average bus passenger boardings

A Traffic Impact Analysis was conducted for the intersections in the Assessment Area. The intersections within the Assessment Area operate at good levels of service under existing (2017) traffic conditions.



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Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

4.0 ASSESSMENT OF POTENTIAL EFFECTS AND PROPOSED MITIGATION MEASURES

The impact assessment of the proposed improvements to the Lincolnville Layover and GO Station has been developed based on the analysis and results of technical discipline-specific environmental studies documented in the reports listed in Section 1.9 (which are located in Appendices A1 through A12 to this EPR).

The project has been designed to prioritize the avoidance of negative environmental effects, and mitigation measures are provided where avoidance is not feasible. The presentation of potential effects and recommended mitigation measures, monitoring activities and anticipated net effects has been organized in this EPR by the following categories:

- Affected environment (e.g., Natural Environment, Social and Economic Environment, Cultural Environment, and Technical Environment)
- Affected feature (e.g., Terrestrial Habitat, Wildlife, Aquatic Habitat)
- Project phase (e.g., Construction or Operations)

The impact assessment is based on conservative (worst case) assumptions regarding potential effects that could occur as a result of the project. They are also based on existing environmental conditions, as outlined in Section 3.0, and information available at the time of the TPAP. The recommendations contained in this EPR will be reviewed by Metrolinx and updated as necessary during the Detailed Design phase of the project.

The potential for effects has been determined based on an understanding of the conceptual design and how construction and operation of the proposed improvements will interact with existing environmental conditions. Where potential negative effects have been identified, mitigation measures have been recommended to limit or avoid the potential for those effects. Net effects are then defined based on the expected effect following applicable mitigation measures. The project has been designed to prioritize the avoidance of negative environmental effects, and mitigation measures are provided where avoidance is not feasible.

The effects of the Project have been assessed in terms of potential changes to natural, social and cultural environments. Table 4-1, below, outlines the evaluation factors and related criteria.



Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-1: Criteria for Assessment of Impacts for Environmental Components

Component of the Environment Criteria				
	Natural Environment			
Vegetation and Vegetation	Loss of existing vegetation communities			
Species at Risk	Loss of designated vegetation species at risk			
Wildlife and Wildlife Species at	 Loss of wildlife (birds, mammals, and herpetofauna) and wildlife habitat (type and quality) 			
	 Impediments to wildlife movement and breeding and increases in animal mortality 			
	 Changes to watercourses providing fish habitat 			
Surface Water and Aquatic Environment	 Changes to the sensitivity of fish and fish habitat, extent of fish habitat altered/displaced) 			
	Decreased water quality in watercourses			
Stormwater Management	 Changes to stormwater runoff quantity: Potential for increase in peak flows, impact on storm drainage systems and erosion in receiving watercourses 			
	 Changes to storm runoff quality: Potential for increase in pollutant loading and effects to water quality 			
Hydrology and Groundwater	 Reduced groundwater quantity/quality 			
	 Reduced soil quality and soil loss 			
Soils and Geology	 Potential to encounter contaminated material during construction activities 			
Trees	Damage to trees and tree removals			
Sc	ocial and Economic Environment			
Land Use and Users	 Potential for land use compatibility conflicts 			
	 Potential for nuisance effects to Facility users and neighbouring properties and residences 			
Cultural Environment				
Archaeology	 Potential for disturbance or destruction of archaeological resources 			
• Direct and indirect impacts to known built heritage resources Cultural Heritage and/or cultural heritage landscapes that may be removed or damaged by construction activities				
Technical Environment				
Air Quality	 Changes to air quality and increases in GHG emissions impacts during the operational stage of the Project 			



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Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Component of the Environment	Criteria
Noise and Vibration	 Noise and vibration emissions during construction and operation at sensitive land uses Potential increase in noise during construction at sensitive receptors
Traffic and Transportation	Changes to level of service at key Study Area intersections

4.1 NATURAL ENVIRONMENT

4.1.1 Vegetation and Vegetation Species at Risk

4.1.1.1 Potential Construction Effects

Based on the proposed Project footprint, direct loss of vegetation is anticipated to occur within the meadow vegetation community along the eastern edge of the existing Layover tracks. Construction areas and temporary work areas extend beyond the eastern edge of the existing Layover tracks and will result in additional temporary loss of meadow vegetation. Permanent loss of vegetation will be focused on areas within existing meadow features around the Lincolnville GO Station. Meadow areas are considered marginal habitat, and removal will have a limited effect on natural features, with negligible effects to landscape scale corridor function.

As noted in Section 3.0, there are no designated natural areas or vegetation species at risk within the proposed project footprint, therefore, no effects are anticipated.

4.1.1.2 Mitigation Measures for Construction Effects

Areas to be cleared of existing vegetation should be reduced to the smallest area that is reasonably feasible and clearly marked to prevent unnecessary clearing. The construction contractor should ensure that heavy equipment is not placed, and other construction activity does not occur beyond marked areas.

Timing windows for vegetation clearing will be adhered to as outlined in Section 7.4.1.

Where applicable, areas disturbed by temporary construction storage and lay-down should be restored with suitable native seed mixes to stabilize soil and establish self-sustained native vegetation as soon as possible following disturbance. Seed mixes should include fast-growing, short-lived perennial cover crop to stabilize soil and reduce competition from weeding exotics.

An erosion mat may also be used to stabilize final grades where necessary, and should be applied post seeding and mulch application. Manufacturer specifications should indicate the erosion mat is made of biodegradable material (without nylon netting, if available) and designed to allow sufficient light penetration for seed germination.

All seed mixes and other planting lists should be designed to include species adapted to the site conditions, including hardiness zone, soil type, moisture and sun exposure. Seed and other



Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

material should be from local sources where possible. Invasive, non-native species should not be used to prevent introduction into adjacent areas.

Existing native topsoil and seed banks should be preserved, stock piled and reintroduced as the final grade in proposed vegetation restoration areas. Seed banks should be supplemented with native seed mixes to improve native species diversity. Seeding efforts should receive water either through precipitation or irrigation after every seven successive days without rainfall for the first two months after planting.

4.1.1.3 Potential Operations Effects

Operational changes at the site are not anticipated to result in significant effects from the loss of vegetation cover as the overall operations procedures at the Layover Facility will remain the same.

4.1.1.4 Mitigation Measures for Operation Effects

In areas where restoration is proposed, qualitative vegetation monitoring should be completed annually for two years following revegetation activities, to document the establishment of planted material, and implement adaptive management to correct deficiencies. Adaptive management may be triggered by poor survival of planted material, insufficient vegetation cover and the presence of unacceptable non-native and invasive species. Adaptive strategies may include supplemental plantings, and/or control of unacceptable species.

4.1.1.5 Net Effects

Given the predominantly anthropogenic nature of the Study Area, and the implementation of appropriate mitigation measures, effects to vegetation are expected to be minimal. Following the implementation of standard mitigation measures, net effects will be limited to a minor loss of meadow vegetation to accommodate the expanded Project footprint.

4.1.2 Wildlife and Species at Risk

4.1.2.1 Potential Construction Effects

Loss of potentially suitable habitat for SAR occurs in areas requiring vegetation removal.

As described in Section 3.1.2, potential habitat for SAR was identified for Bobolink (*Dolichonyx oryzivorus*); however, field investigations concluded the species is not breeding on site. MNRF concur and no mitigation measures are required.

Although none were observed on site, slow-moving and ground-dwelling wildlife could be encountered in work areas during construction, including reptiles (snakes and turtles) and amphibians.



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4.1.2.2 Mitigation Measures for Construction Effects

Standard mitigation measures such as construction fencing, and sediment control fencing will prevent ground dwelling wildlife from entering the site during construction activities.

Contractors should be aware of potential encounters with wildlife, including reptiles and amphibians, and avoid them. Generally, sediment and construction fencing will also prevent wildlife access; however, there is some potential that individuals may enter the limits of construction.

Although no migratory bird nesting activity was observed on the site, general mitigation measures for migratory birds will help to mitigate against potential negative effects to these birds, should they happen to enter the Study Area prior to or during construction activities. Nesting migratory birds such as the Bobolink (*Dolichonyx oryzivorus*), Eastern Meadowlark (*Sturnella magna*), and Barn Swallow (*Hirundo rustica*), or other potential SAR are protected under the *Migratory Birds Convention Act* (MBCA 1994) and *Migratory Birds Regulations* (MBR 2014). By implementing the timing restrictions for vegetation/structure removal identified in the MBCA, the nests of migratory birds are protected from damage while they are active, including nests in vegetation and on structures. The Primary Nesting Period (the period when the percent of total nesting species is greater than 10%) for this Study Area, as defined by Environment Canada C2 breeding and nesting period, extends from April 1 through to August 31, although nesting also infrequently occurs outside of this period (Environment Canada, 2014). If work affecting potential nesting areas is scheduled to occur outside the Primary Nesting Period restricted period, no mitigation will be required.

In the event that construction is required during that time, an avian biologist must be retained to conduct nest sweeps of the area prior to works commencing, in order to check for nesting activity. The biologist will search for nests (or signs of nesting) of migratory birds to make sure there will be no destruction of active nests protected by the MBCA. Nest searches must be completed within 24 hours of the proposed works. If work is not completed, the search must be repeated to make sure no new nests have been established during that period. A signed and validated avian survey letter summarizing the level of effort and results of the nest sweeps must be prepared following each survey and submitted to Metrolinx (or approved delegate) prior to initiation of the clearing and grubbing activities.

If no nests or signs of nesting are found, clearing or other activities may proceed in the area searched.

At any time of the year, should a nesting bird be present when construction activity is under way, work in the area must cease immediately and a biologist with avian expertise will be required to develop a site-specific mitigation plan that meets all regulatory requirements. Should a nest be located in an area to be disturbed by construction activities, a designated buffer will be delineated, within which no activity will be allowed while the nest is active. The radius of the buffer ranges from 5 - 60 m depending on the species.



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Activity restrictions would also depend on the proposed work in relation to the nest location. For example, irregular foot traffic would likely have a very minimal impact to nesting; whereas, regular vibration from heavy machinery may disturb nesting birds enough to abandon their attempt. If a nest is found, it should be checked every few days to determine its status. Once the nest is determined to be inactive (i.e., the nest no longer has young), clearing and other activities in the area may proceed.

Regular visual searches for reptiles (turtles and snakes) and other animals that may enter the site prior to construction activities commencing are recommended to address potential interactions. A thorough visual search of work areas will be conducted by construction contractors before work commences each day. If reptiles are encountered during construction, they should be permitted reasonable time to leave the area. If an animal must be moved outside the construction zone, a qualified biologist will be consulted to determine appropriate handling protocols. Any observations of SAR must be reported to MNRF within 48 hours.

4.1.2.3 Potential Operations Effects

It is not anticipated that the Bobolink or slow-moving/ground dwelling wildlife will be significantly affected by the proposed improvements at the site as there are no significant changes to operational procedures proposed.

4.1.2.4 Mitigation Measures for Operational Effects

Operational effects are not expected to affect the Bobolink or slow-moving/ground dwelling wildlife. Therefore, no mitigation measures are required for the operational phase.

4.1.2.5 Net Effects

Due to the limited potential for interaction with wildlife, the above mitigation measures are proposed to mitigate negative effects by restricting access to the site by wildlife and wildlife SAR, and by confirming wildlife and wildlife SAR are not present prior to commencing construction activities. As no SWH or SAR are anticipated to be present during construction activities, no net effects are anticipated as a result of construction or operations of the proposed improvements.

4.1.3 Surface Water and Aquatic Environment

4.1.3.1 Potential Construction Effects

Potential effects to fish habitat include indirect effects resulting from changes to Reach 1 affecting flow and nutrients to the downstream habitat in Reesor Creek. Because the proposed improvements may require alterations to Reach 1, and Reach 1 contributes to off-site fish habitat downstream, indirect effects are possible as a result of flow alteration/reduction or erosion/sedimentation within the Study Area.



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If flows are reduced, it could render the downstream habitat unusable by fish to carry out their life processes.

Introduction of sediment can affect fish due to increased turbidity of the water column, which can impair vision and subsequent feeding by fish that are sight-hunters. Suspended sediments can also abrade gill membranes leading to physical stress, and impact prey organism's behavioral changes (i.e., avoidance, etc.). Heavier sediments can deposit on bottom substrates that may be used for spawning, incubation of juvenile fish, or food production, thereby affecting those habitat functions.

4.1.3.2 Mitigation Measures for Construction Effects

Although direct effects are not anticipated, requirements under the *Fisheries Act* will be addressed including any Self-Assessments or permitting that may be required. Prior to finalizing detailed design, a Self-Assessment will be undertaken by a qualified professional to determine whether, following the implementation of appropriate mitigation measures, further assessment and review is required by DFO. This will be conducted to confirm there will be no direct effects using DFO's Self-Assessment process. If the result of the Self-Assessment process suggests that potential harm could be caused to a fish- or a fisheries-supporting waterbody, Metrolinx must contact DFO for a formal review or authorization under the *Fisheries Act*.

Best management practices (BMPs) and standards are available to guide the design of mitigation measures. MOECC's Guideline B-6 *Guidelines for Evaluating Construction Activities Impacting on Water Resources* (1995), the *Erosion and Sediment Control Guideline for Urban Construction* (TRCA 2006), the *Sustainable Technologies Evaluation Program* (TRCA 2016), and the *Ontario Provincial Standards for Roads and Public Works* (Ontario Ministry of Transportation 2015) will be referenced when developing erosion and sediment control plans.

Potential indirect effects to fish habitat will be mitigated with standard environmental protection measures, which may include the following, as appropriate:

- Timing of the work to reduce the risk of effects to fish by avoiding sensitive life periods such as spawning. Reesor Creek (to which Reach 1 contributes) is a coldwater watercourse. The typical timing window provided by government agencies allows work that could affect the Creek to proceed from July 1 to September 15.
- Preventing sediment from entering waterbodies by trapping sediments as close to the source as possible (using methods such as silt fencing or filter logs).
- Reducing the area and duration of soil exposure to the extent possible.
- Diverting runoff away from exposed soils.
- Keeping runoff velocities low.



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- Implementing debris/waste containment and removal.
- Retaining existing vegetation where feasible.
- Completing post-construction site restoration where applicable (i.e., application of cover and re-vegetation of cleared areas), and monitoring until the area has restabilized.
- The construction activities should be monitored by an onsite Environmental Specialist to verify that the contract constraints and provisions are adhered to and to recommend remedial action in the event of an emergency or unforeseen situation.

Mitigation measures will be implemented to reduce the risk of spills from entering natural features during construction, the same mitigation measures from Section 4.1.3.4 will be used during construction. A Hazardous Materials and Fuel Handling plan will be developed prior to construction.

4.1.3.3 Potential Operations Effects

The proposed improvements are not anticipated to affect the existing pond, located at the northern edge of the property. The pond does not have an outlet and is therefore not connected to any aquatic habitats located downstream, and is therefore not anticipated to result in negative effects to fish or fish habitat. The stormwater management facility located on the eastern boundary of the property is not considered fish habitat. Operational effects are not expected to affect either of these aquatic features on the property.

4.1.3.4 Mitigation Measures for Operation Effects

Mitigation measures will also be implemented to reduce the risk of spills from entering natural features during operation, as this could negatively affect the aquatic environment. Mitigation measures for spills include:

- All toxic material shall be stored in secure enclosures and equipment should be refueled at minimum 30 m away from any sensitive natural areas to avoid potential effects from accidental spills;
- An adequate supply of spills cleanup materials/kits shall be maintained at various locations within the work site. Spills and leaks should be captured, contained and cleaned up immediately; and
- Contaminant spills shall be reported as per the *Environmental Protection Act*, 1990. All toxic chemicals and contaminants must be disposed of offsite in approved disposal sites under appropriate MOECC regulations.

4.1.3.5 Net Effects

The proposed improvements are unlikely to result in serious harm to fish due to the limited function of Reach 1 as fish habitat. Because the existing surface water features within the Study



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Area do not directly support fish or fish habitat, mitigation measures are focused on minimizing the potential off-site effects of the proposed construction and operations of improvements to the Lincolnville Layover and GO Station on aquatic features (namely, Reesor Creek). By maintaining the quality and quantity of flows from the Study Area into Reesor Creek, no net effects are anticipated.

4.1.4 Stormwater Management

4.1.4.1 Potential Construction Effects

The new layover tracks are proposed within existing Drainage Ditches D1 and D2, which currently collect flows from in and around the tracks, as well as flows from external areas located to the west and north of the Study Area. Additionally, an existing parking area will be expanded and converted to an asphalt storage area which will be drained by the existing parking lot's storm sewer system. As such, the approximate area of the existing property to be modified by the proposed improvements is approximately 3.0 ha (7.4 ac) and results in an increase of impervious surface area within the Study Area from approximately 60% to 65%.

To accommodate the new tracks within the existing Layover Facility, Drainage Ditches D1 and D2 will require the conversion to track area that will generally consist of half asphalt and half granular ballast.

The existing stormwater management system has sufficient excess storage capacity to accommodate the modifications around the new tracks and storage area. Therefore, no additional quantity control measures are required; however, some modifications are required to manage the quality of future flows and limit erosion.

The following element will be incorporated into the design of the proposed improvements to mitigate potential changes to stormwater flows.

4.1.4.2 Mitigation Measures for Construction Effects

It is anticipated that the mitigation provided by the erosion and sediment control measures will be sufficient to mitigate potential effects on the water balance during construction.

4.1.4.3 Potential Operations Effects

Future operations will not affect the flow of stormwater within or beyond the Study Area, as the conversion of existing and installation of new stormwater management features will account for changes to the Layover Facility footprint, and existing drains and ditches will be extended and realigned as required.



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4.1.4.4 Mitigation Measures for Operational Effects

The following elements will be incorporated into the design of the proposed improvements to mitigate potential changes to stormwater flows.

Runoff associated with the modified asphalt storage area will be collected by the existing parking lot stormwater system which can be accommodated by the existing oil grit separator (OGS) unit. The need for an additional OGS unit to accommodate the increase in impervious surface area (asphalt-paved surfaces) will be confirmed during detailed design.

Runoff from the additional track areas south of culvert C1 will be passed through a new bioretention cell to achieve an enhanced level of water quality control (i.e., 80% TSS removal), as defined by the MOECC, prior to discharge into Channel Pond (A). The new bioretention cell will allow 129 m³ of surface storage to ensure 80% TSS removal per the design requirements of Stormwater Management Planning and Design Manual (MOE, 2003). The catchment area for the bioretention cell includes both on site (approximately 3.0 ha) and external areas (approximately 1.3 ha). An OGS unit will provide pretreatment to minimize sedimentation and clogging within the bioretention cell. Engineered soil and plant matter will provide additional quality improvement.

The proposed modifications are expected to affect a retention volume of approximately 130 m3 of runoff to achieve retention of 5 mm of rainfall during a storm event. Erosion control retention will be provided in the aggregate in the proposed bioretention cell.

4.1.4.5 Net Effects

Water quality and water balance will be maintained for storm flows originating from within the Study Area during construction and operations. As such, no net effects are anticipated following the proposed design recommendations.

4.1.5 Hydrology and Groundwater

4.1.5.1 Potential Construction Effects

Construction dewatering has the potential to negatively affect water well quality and quantity depending on the location and condition of the private wells identified for this project. The need for, and extent of, private well monitoring during construction should be confirmed as part of final design, once dewatering requirements, proposed construction activity and potential zone of influence are confirmed.

Although threat vulnerability mapping has not identified significant chemical, pathogen or dense non-aqueous phase liquid (DNAPL) threats to groundwater supplies, it is important to implement mitigation measures during construction activities to protect against potential accidents and spills.



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It is anticipated that the objectives of the ORMCP can be met within the Study Area, and consideration will be given to the ORMCP during the planning and design phases. The York Region Official Plan is required by the ORM *Conservation Act* to be conformant with the ORMCP. All work completed at the Site must be in compliance with the York Region Official Plan (York Region, 2016) as it relates to hydrogeological functions.

4.1.5.2 Mitigation Measures for Construction Effects

As the Site has been classified as a SGRA, the site design must account for groundwater recharge, and maintain the quality of recharge water based on the potential for additional impermeable surfaces.

The need for a pre-and post-construction water balance for the Site will be confirmed during the design phase. A water balance will enable proper plans to be developed to maintain preconstruction infiltration rates across the Site.

The York Region's Risk Management Department will be contacted to review the detailed design prior to construction.

If dewatering activities are required discharge water may be released to the environment, dependent on water quality. In this case, appropriate sediment and erosion control measures must be in place. Additional mitigation measures will be determined based on the expected volume and quality of dewatering and the discharge location. The need for and extent of water quality testing during dewatering activities will be confirmed as part of final design. A sediment and erosion control plan associated with construction dewatering and long term operation may be required upon completion of the final design.

If dewatering estimates are anticipated to exceed 50,000 L/day, a permit must be obtained from the MOECC. This permit may be in the form of a Permit to Take Water (PTTW), when dewatering estimates are greater than 400,000 L/day, or through application on the Environmental Activity and Sector Registry (EASR), where dewatering is anticipated to be greater than 50,000 L/day but less than 400,000 L/day. The need for a PTTW/EASR and associated mitigation measures will be confirmed as part of final design. If a PTTW application is required, a report will be prepared in support of the water taking application and will include:

- Details on the potential effects of the taking and the management of the discharge water
- Details on the potential effects of taking and the management of the discharge water, including targets for pollutant concentrations (typically Total Suspended Solids), how these targets will be achieved, quantity controls and monitoring requirements

The requirements of the Clean Water Act policies will be considered where applicable during the design phase of the project. In accordance with the *ORM Conservation Act*, a Site Management and Contingency Plan should be developed for any areas falling within the WHPA of a municipal system. The need for a Site Management and Contingency Plan will be confirmed as part of the



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design phase. If required, this plan will be specific to any activities proposed for the Site, and be focused on the prevention of pollution with consideration of any relevant policies developed under the *Clean Water Act* (2006).

A Hazardous Materials and Fuel Handling Plan will be developed prior to construction activities to confirm that fuels and other hazardous materials are handled and stored in a safe manner. This plan will take into consideration the Study Area's location within a WHPA and associated Vulnerable Areas. Hazardous materials and fuel storage, refueling and maintenance of construction equipment will occur within the designated areas only.

4.1.5.3 Potential Operations Effects

Long-term effects to any residential wells near the Site are not anticipated, as activities in this location are already established.

The Wellhead Protection Area, Significant Groundwater Recharge Area, and Highly Vulnerable Aquifer are at risk of contamination due to spills and infiltration of contaminants that could enter the site as a result of operations. Site activities that may cause threats to the groundwater must be confirmed as a part of design activities to determine if additional mitigation measures are required under Oak Ridges Moraine Conservation Plan (ORMCP) policies.

Significant dewatering is not anticipated during operations, however if excavations encounter a high water table and groundwater dewatering is required during operations, additional mitigation measures will be necessary as described below.

Grading will be required in various areas of the Site requiring excavation or fill material. The largest proposed decrease in elevation is a proposed 4 m cut for the construction of a proposed ditch. Domestic wells to the west and northwest of the Site, which are interpreted to be upgradient, are approximately 3 m to 5 m higher than the ground surface elevation of the site. These wells are generally constructed deeper than 18 m BGS based on MOECC records. It is not expected that wells will be negatively affected by the proposed cut. As a precautionary measure a domestic well survey of residential properties within 200 m of the Site will be undertaken to identify if any other shallow domestic wells exist which may potentially be affected by the creation of the ditch.

4.1.5.4 Mitigation Measures for Operational Effects

The following measures are recommended in areas mapped as HVA or SGRA:

- The requirements of the Source Protection planning policies, as they apply to HVA or SGRA, will be considered during the design phase of the project.
- Refueling of equipment will be carried out in proper spill containment areas for SGRA and HVA, whenever possible, to minimize potential effects to groundwater quality in the event that an accidental release occurs.



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- Best management protocols with respect to the handling and storage of chemicals (such as used oil, degreasers and salt) shall be implemented during construction and operation such as secondary containment of any temporary or permanent fuel storage, maintaining spill response kits onsite, and preparation of a spill response plan and proper management.
- A Risk Management Plan shall be prepared to address chemical use and storage during operations, and shall include the staff training on the use of spill kits, spill response, and secondary containment.
- Winter maintenance activities shall be undertaken by persons who are certified by Smart About Salt, and best management practices for salt and snow shall be implemented.

4.1.5.5 Net Effects

Careful management of water balance and water quality through site design elements, and limiting dewatering during construction are not anticipated to result in net effects to area wells or drinking water sources. As no soil contaminants are anticipated to be encountered during construction, and design elements will specifically address pathogens, chemicals, or DNAPL substances that could be used during operations, no net effects are anticipated to the recharge water within the Oak Ridges Moraine.

4.1.6 Soils and Geology

4.1.6.1 Potential Construction Effects

Spills and releases associated with site construction may affect on-site soil quality. In addition, stripping of the existing surficial organics and topsoil will be required as part of construction. Topsoil stripped during the site preparation program is not considered suitable for reuse in any application other than general landscaping on the site. In addition, some of the existing fill materials are not suitable to support the proposed Facility improvements. Excavated fill material will require removal or will be reused on-site, where feasible. Previous classification of on-site subsurface soils indicated that excess soils generated from future excavation activities would be classified as non-hazardous. Additional soil characterization may be required during excavation/construction activities to determine the suitability of excess soils for reuse within the Study Area. Geotechnical studies will be undertaken prior to construction to determine the presence of fill or impacted soils, and the presence of contaminated soils or groundwater. Where soils are proposed for reuse on the site, soil characterization shall determine soil quality and the potential for contaminants to migrate offsite or into Reach 1. Soil characterization will determine whether soils can be reused onsite or if they must be disposed of at an appropriate facility.



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4.1.6.2 Mitigation Measures for Construction Effects

A Hazardous Materials and Fuel Handling Plan will be developed prior to construction activities to confirm that fuels and other hazardous materials are handled and stored in a safe manner. This plan will take into consideration the Study Area's location within a WHPA and associated Vulnerable Areas. Hazardous materials and fuel storage, refueling and maintenance of construction equipment will occur within the designated areas only.

The Contractor will develop, implement, and maintain a site-specific Health and Safety Plan and a Spill Prevention and Response Plan. Personnel will be trained in how to apply the plans. In addition, the plans will be reviewed on a regular basis to strengthen their effectiveness to facilitate continuous improvement. Spills will be immediately contained and cleaned up in accordance with provincial regulatory requirements and the contingency plan. A spill response kit will be on-site at all times during construction. Spills will be reported to the Ontario Spills Action Centre at 1-800-268-6060.

Should visual or olfactory evidence of contamination be identified in the excess soils generated during construction activities, appropriate tests to determine contaminant levels will be undertaken, and appropriate action will be taken as per the Spill Prevention and Response Plan. If the excess soil exceeds the applicable MOECC Standard, it will be disposed of offsite at an accepting MOECC-licensed facility in accordance with the MOECC's most current guidance document entitled, *"Management of Excess Soil – A Guide for Best Management Practices"* and other applicable legislation.

Any excavated materials will be stockpiled temporarily in accordance with the MOECC's guidance document entitled, *"Management of Excess Soil – A Guide for Best Management Practices"*.

Construction of the proposed improvements is expected to generate excess soil that cannot be reused on site due to its geotechnical properties or quality of the excess soil. In all cases the onsite and off-site beneficial reuse of excess soil will be explored by the Project team and will be undertaken in accordance with Excess Soil – A Guide to Best Management Practices (MOECC, January 2014). A qualified person will oversee site work where excess soils may be generated, or where soils may be moved or stockpiled. It is noted that the MOECC is presently contemplating the creation of a Regulation to govern excess soil management. Should this Regulation come into force within the implementation of the project the requirements will be incorporated, as applicable.

Prior to construction, a Soil Management Plan will be prepared to address any contamination found during construction works. The Soils Management Plan will also address proper handling of all excess materials, including those that may be potentially contaminated, according to applicable legislation, regulations and standard procedures.



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4.1.6.3 Potential Operations Effects

Spills and releases associated with site operations can affect on-site soil quality. In order to address potential soil quality effects, design, and operational procedures, including spills response protocols, will be developed as part of detailed design activities and implemented to control contaminant releases during operations. As such, no effects to on-site soils are anticipated in association with Facility operations.

4.1.6.4 Mitigation Measures for Operational Effects

A Hazardous Materials and Fuel Handling Plan will be developed to confirm that fuels and other hazardous materials are handled and stored in a safe manner. This plan will take into consideration the Study Area's location within a WHPA and associated Vulnerable Areas. Hazardous materials and fuel storage, refueling and maintenance of operation equipment will occur within the designated areas only.

An Operations Phase Spill Prevention and Response plan will be developed, implemented and maintained. Metrolinx staff will be trained in spill prevention and response procedures. The location of the Spill Prevention and Contingency Plan and associated spill response materials will be provided to staff at all times during operations.

4.1.6.5 Net Effects

Contaminated soils are not anticipated to be encountered and a contaminant management plan will be developed in advance of construction. Design elements will be implemented to control contaminant releases during operations. Therefore, no net effects to soils or geology are anticipated as a result of the construction and operation of the improved Facility.

4.1.7 Trees

4.1.7.1 Potential Construction Effects

Through review of the construction limits and proposed design, the Arborist Report identified that tree effects will be predominantly limited to trees located within the construction limit area.

Trees to be removed are predominantly newly planted trees and include species such as: Freeman Maple, Sugar Maple, Manitoba Maple, Cottonwood, White Ash, Willow spp., White Pine, and Austrian Pine. Tree removal is considered minimal: 12 trees in good condition with a DBH of 10cm, and 19 trees in good, fair, or poor condition with a DBH of less than 10cm, for a total of 31 trees to be removed from the Study Area.

Trees that will be near construction activities but will not be affected by the construction were identified to be retained. Potential effects to retained trees are soil compaction, mechanical damage and root damage.



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4.1.7.2 Mitigation Measures for Construction Effects

Trees to be retained will be protected with tree protection fencing (TPF) during construction as identified on the Tree Management Plan drawings within the Arborist Report (Stantec, November 7, 2017). Trees located at a distance of 20 m or greater from construction activities were identified to be retained but TPF is not required.

Upon installation of the TPF, the Contractor shall contact a Certified Arborist to review and approve the fencing and its location prior to commencement of any site work. The protection fencing shall remain intact throughout construction activities. The fencing will be inspected weekly and, if required, repaired. The fencing shall be removed at the completion of all site works.

When the necessary project approvals are received and prior to the commencement of tree removals, all trees designated for preservation must be flagged in the field. All designated preservation areas must be left standing and undamaged during site works. Removals are to be completed outside of migratory bird nesting season from April 1 to August 31. Removals may take place during this restricted time only if the requirements of the *MBCA* are met and the site is routinely monitored for evidence of nesting activity by qualified individuals.

The tree protection zone (TPZ) is the area around a retained tree that is to be protected by TPF. The TPZ shall not be used for any type of storage (e.g., storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the TPZ. Construction equipment shall not be allowed to idle or exhaust within the TPZ.

Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Furthermore, no contaminants shall be dumped or flushed where they may come into contact with the feeder roots of the trees. In the event that roots from retained trees are exposed, or if it is necessary to remove limbs or portions of trees after construction has commenced, a Certified Arborist shall be informed and the proper actions addressing regulatory requirements shall be undertaken.

Upon completion of the tree removals, all felled trees are to be removed from the site. No lumber or brush from the clearing is to be stored on the site. Any chipping, cutting or brush cleanup are to be completed outside of the bird nesting season. These works may take place during this restricted time only if the requirements of the *MBCA* are met and nesting activity is routinely monitored by qualified individuals.

The following is the process that shall be carried out if tree removals are requested during the restricted time indicated in the *MBCA*:

• Contact a qualified individual (e.g., Wildlife Biologist) to determine if nesting birds are within the tree removal disturbance area.



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- If the qualified individual has determined that there are nesting birds onsite, there will be no tree removals/chipping conducted within the boundary set out by the specialist. Tree removals can resume within this area at the end of the nesting season, August 31, or if the qualified individual has determined the birds have left.
- If the qualified individual determines there are no migratory birds nesting within the disturbance area, the contractor has 24 hours to conduct removals. At the end of 3 days, if removals and chipping is not complete, the qualified individual will return to the site and proceed with another assessment. If there are still no birds, work can resume for another 3 days. This process will continue until all removals and chipping is complete.

The Town of Whitchurch-Stouffville currently does not have any tree by-laws or policies that identify compensation requirements for the removal or injury of trees. The Region of York's Forest Conservation Bylaw would not apply to the tree effects on this project site as there are no treed areas that would meet their criteria of a forest in the by-law.

Because the Study Area is located partially within a TRCA regulated area, the TRCA will review the Arborist Report for tree effects as a part of the Voluntary Project Review, and may provide input on an appropriate compensation plan. No construction activities are proposed within the TRCA regulated area.

Metrolinx is establishing a Vegetation Compensation Protocol for Metrolinx Regional Express Rail (RER) projects and vegetation that is removed will be compensated for in accordance with the provisions of this protocol. The protocol will include standards and objectives for compensation of municipally-owned trees and privately-owned trees, and account for municipal and regional/Conservation Authority permitting and approvals requirements. Metrolinx will be looking to partner with Conservation Authorities and municipalities to develop the final compensation plan. Tree plantings will be targeted in areas away from daily operational activities and high traffic areas to the extent possible, so that the potential for damage during operations will be limited. A Landscape Plan will also be developed as part of the Vegetation Compensation Protocol.

4.1.7.3 Potential Operations Effects

Trees could be affected by ongoing operations as a result of spills, root compaction due to stray pedestrian or vehicular traffic, or deteriorated soil or water quality as a result of surface salting during the winter.

4.1.7.4 Mitigation Measures for Operational Effects

Maintenance staff will monitor all trees on the property and prune or fell hazard trees as required. Tree replacement may be required to compensate adjacent landowners if the condition of their trees deteriorates as a result of new growing conditions caused by the project (i.e., sunscaled). Metrolinx will develop options for the end use of trees removed from Metrolinx property e.g., reuse/recycling options.



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4.1.7.5 Net Effects

As identified above, the Project will require the removal of 31 trees. A tree replacement strategy is proposed to address the net effect of the tree removal, and no net effects are anticipated once plantings are established.

4.2 SOCIAL AND ECONOMIC ENVIRONMENT

4.2.1 Land Use and Users

4.2.1.1 Potential Construction Effects

The Study Area is currently designated as a "Major Transit Station Area" under the Town of Whitchurch-Stouffville Official Plan, and zoned "Institutional" under the Town's Comprehensive Zoning By-Law, permitting the current use, and the future use of the Study Area. There are no proposed changes to the existing land use as a result of the proposed improvements. Therefore, there are no anticipated land use effects associated with the proposed improvements.

The proposed improvements to the Lincolnville Layover and GO Station will have minimal environmental and land use compatibility effects. The land use regime supports the existing use and expansion, which will be confirmed through the design phase of the project. The Town of Whitchurch-Stouffville has identified the need to improve access to the GO Station through various modes of transportation. Ultimately, the proposed improvements will benefit the community of Stouffville by improving connectivity and access to public transit.

During construction activities, passengers may be temporarily inconvenienced as parking facilities are reduced, site access is temporarily altered or relocated, and pedestrian access to platforms and other Station facilities are altered. As a result, some delays may occur and lineups may be longer than usual for short periods of time. Transit users and surrounding land users may also experience temporary nuisance effects due to increased noise, vibration, dust and traffic associated with construction activities.

4.2.1.2 Mitigation Measures for Construction Effects

As no land use compatibility effects are associated with the Project, no specific mitigation measures are required. Mitigation measures related to potential nuisance effects are outlined in Sections 4.4.1 (Air Quality), 4.4.2 (Noise and Vibration) and 4.4.3 (Traffic and Transportation). Construction best management practices and monitoring will include the development of a protocol to identify and resolve issues associated with construction-related nuisance effects.

Although the Layover/Station property is not subject to municipal or conservation authority approvals, Metrolinx will conduct consultation with the Town of Whitchurch-Stouffville, the Regional Municipality of York and TRCA to offer the opportunity to review the development



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plans and comment on the design. These consultation activities will allow Metrolinx to address concerns that typically would arise as a result of permitting efforts.

Traffic controls and wayfinding measures will be in place and monitored for effectiveness during construction of the proposed Project, as required. In addition, Metrolinx's community office located at 4142 Sheppard Ave. E. is open every Tuesday, Wednesday, and Thursday from 11 am to 2:30 pm for the community to visit and discuss any questions or concerns. Members of the public can also contact Metrolinx with any concerns by calling 416-202-5837 or emailing Azim.Ahmed@metrolinx.com.

The Construction Contractor will be responsible for monitoring site conditions throughout construction activities. Daily monitoring will be performed by the site supervisor to confirm site conditions (and implement mitigation measures as required).

4.2.1.3 Potential Operations Effects

There is potential for nuisance effects related to operation and maintenance of the Facility, as addressed in Sections 4.4.1 (Air Quality), 4.4.2 (Noise and Vibration) and 4.4.3 (Traffic and Transportation).

4.2.1.4 Mitigation Measures for Operations Effects

As no land use compatibility effects are associated with the Project, no specific mitigation measures are required. Mitigation measures related to potential nuisance effects are outlined in Sections 4.4.1 (Air Quality), 4.4.2 (Noise and Vibration) and 4.4.3 (Traffic and Transportation).

4.2.1.5 Net Effects

No net effects are anticipated for land use compatibility. Net effects due to potential nuisance effects are outlined in Sections 4.4.1 (Air Quality), 4.4.2 (Noise and Vibration) and 4.4.3 (Traffic and Transportation).

4.3 CULTURAL ENVIRONMENT

4.3.1 Archaeology

4.3.1.1 Potential Construction Effects

No archaeological resources were identified during the Stage 1 and Stage 2 archaeological assessments for the Study Area. Thus, in accordance with Section 2.2 and Section 7.8.4 of the MTCS' 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), no further archaeological work is required for the Study Area. No archaeological direct or indirect effects are anticipated during construction of the proposed improvements.



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4.3.1.2 Mitigation Measures for Construction Effects

No mitigation is required for archaeological resources, as there are no direct or indirect effects anticipated for this project.

Should previously undocumented archaeological resources be discovered or suspected of being discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a). The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (Government of Ontario 2002) requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

4.3.1.3 Potential Operations Effects

As no archaeological resources were identified, and operations will not require additional excavation, no archaeological effects are anticipated during the ongoing operations at the site.

4.3.1.4 Net Effects

As there were no artefacts found during investigations, and mitigation measures appropriately address potential newly-identified artefacts found during construction activities, no net effects are anticipated for archaeological resources.

4.3.2 Cultural Heritage

4.3.2.1 Potential Construction Effects

Potential effects on the five identified Conditional Heritage Properties are not anticipated because all planned improvements for the Lincolnville Layover and GO Station are expected to take place within the existing property. Since none of the identified Conditional Heritage Properties are located on the property, no direct effects to these properties are anticipated.

Construction activities will take place further than 50 m from the buildings located on the Conditional Heritage Properties, and therefore vibration effects are not anticipated. In addition, there will be construction mitigation measures for erosion control; given these measures, and the separation of the construction footprint from the Conditional Heritage Properties by municipal roads or existing infrastructure, grading effects are not anticipated. Therefore, no indirect effects on the properties are anticipated.



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4.3.2.2 Mitigation Measures for Construction Effects

No mitigation measures are required for cultural heritage resources, as there are no direct or indirect effects anticipated for this project.

4.3.2.3 Potential Operations Effects

It anticipated that ongoing operations at the site will not result in higher vibrations than those currently generated at the site, or that operations will result in any off-site grading effects, and therefore cultural heritage resources are not anticipated to be affected as a result of operations. Therefore, no direct or indirect effects on the properties are anticipated as a result of operations.

4.3.2.4 Mitigation Measures for Operational Effects

No mitigation measures are required for cultural heritage resources, as there are no direct or indirect effects anticipated for this project.

4.3.2.5 Net Effects

No net effects are anticipated for cultural heritage resources, as there are no direct or indirect effects anticipated for this project.

4.4 TECHNICAL ENVIRONMENT

4.4.1 Air Quality

4.4.1.1 Potential Construction Effects

During construction activities, emissions are expected to be primarily associated with fuel combustion from construction vehicles and equipment, as well as from fugitive dust from construction activities. While these emissions have the potential to cause a nuisance to GO patrons and nearby residents, significant adverse changes in air quality are not expected. An addendum report for the relocation of the train station and parking lot will include a detailed assessment including estimation and modelling of PM₁₀ and fugitive dust from re-supension at the parking lot and paved parking lot road dust.

4.4.1.2 Mitigation Measures for Construction Effects

Although future increases in emissions are not considered significant, technically and economically feasible mitigation measures to reduce or maintain air contaminant emissions during construction will be undertaken:

- Develop and implement an Air Quality Management Plan for the construction phase in accordance with industry standard.
- Wet or cover open dirt areas, unpaved roads, or material storage piles that may emit dust.



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- Stabilize construction access and roadways to reduce the tracking of construction sediment (mud and dirt) onto public roads by construction equipment.
- Regularly undertake road sweeping at access and egress points.
- Use temporary barriers to prevent soil erosion and control wind flow during construction phases for locations where potential dust could be generated.
- Introduce a no-idling policy to control mobile equipment and other vehicle emissions where applicable Regulate mobile equipment to travelling speed inside the construction area to prevent excessive dust generation.
- Ensure proper maintenance of equipment and vehicles operating in work areas.
- Undertake proper planning of construction phases and effectively use construction equipment to reduce dust, including use of due diligence during material loading, unloading, and transferring activities to avoid excessive dust generation.
- Usage of non-chemical dust suppressant to reduce fugitive dust emissions from temporary unpaved roads or parking lots.

4.4.1.3 Potential Operations Effects

Future air emission sources are expected in association with an increase in vehicular traffic volumes, and an increase in the frequency of locomotives on-site. Trains are expected to startup in the morning within the Layover area, then proceed to the station site for passenger boarding.

Both train traffic and vehicle traffic in the parking lot area are expected to increase in volume; however, emission effects are not considered significant.

The predicted cumulative concentrations (i.e., maximum predicted concentration plus background levels) were compared for the existing and future scenarios. Most contaminants were predicted to be below the applicable criteria, with the exception of 24-hour and annual benzene concentrations and 24-hour and annual Benzo(a)Pyrene (B(a)P) concentrations, which exceeded the criteria for both existing and future concentrations. This is in part due to high background levels of some of these contaminants, especially B(a)P, which are commonly measured across southern Ontario.

Increases to the cumulative concentrations associated with the proposed improvements were predicted for all contaminants, ranging between a 13% increase in B(a)P to a 50% increase in NO₂.



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It is anticipated that with the phase-in of newer fleets of locomotives in the future, air quality effects will be lower than those predicted due to more stringent emissions standards. The identified air quality effects are considered to be acceptable as they are within the range of established MOECC criteria. An assessment of the effects of plans for electrification of the locomotive fleet is not in the scope of this assessment.

4.4.1.4 Mitigation Measures for Operational Effects

MOECC air quality criteria will be met for all contaminants except those that already exceed the criteria due to high background levels, therefore emission mitigation measures for the operation phase are not required.

4.4.1.5 Net Effects

No net effects have been identified in association with the construction and operation of the proposed improvements. Standard mitigation measures will control dust and emissions during construction. In addition, operations are not anticipated to result in air quality exceedances to MOECC criteria, other than for substances that currently exceed MOECC criteria due to existing, high background concentrations.

4.4.2 Noise and Vibration

4.4.2.1 Potential Construction Effects

Increases in ambient noise levels at nearby receptor locations are expected in association with construction activities. These increases are anticipated to be temporary in nature and are considered to be a short-term nuisance to GO patrons and area residents. Metrolinx will endeavor to abide by existing municipal noise by-laws for the duration of construction activities whenever feasible.

4.4.2.2 Mitigation Measures for Construction Effects

Based on the results of the assessment, noise control mitigation measures are not required within the Study Area. The public may make a noise complaint under the Town of Whitchurch-Stouffville By-Law No. 2015-172-RE by contacting the Town's Customer Service Centre.

Metrolinx will adhere to the Town of Whitchurch-Stouffville By-Law 2015-172-RE (Whitchurch, 2015), and if there will be a need to complete work outside of the hours allowed in the by-law, Metrolinx shall seek the required exemptions and permits directly from the Town of Whitchurch-Stouffville in advance of any works preformed outside the allowable times.

Construction equipment will meet the sound level criteria from NPC-300, will be well maintained and operated with effective muffling devices as needed.



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A Complaint Response Protocol will be put in place for the project that includes procedures for receiving and addressing construction noise complaints. This protocol will include contact information, records management and issues resolution.

4.4.2.3 Potential Operations Effects

Sources of noise associated with the improved Facility include moving and idling trains, as well as an emergency generator. Trains will move into the storage tracks for overnight parking at a slow speed to stop, or move out of the storage tracks to the station site at a slow speed to stop. Therefore, no impulsive sources are expected in association with Facility operations. The non-impulsive sources are associated with regular operation (idling and moving trains) of the Facility, as well as emergency equipment. Each train engine could idle for up to 75 minutes prior to departure in the morning and could stop as soon as they arrive in the evening.

According to the MOECC and GO Transit document entitled, 'Draft Protocol for Noise and Vibration Assessment', The Acoustic Noise Assessment predicts that noise emissions during the Lincolnville Layover and GO Station's predictable worst case operation do not exceed the MOECC and GO Transit Draft Protocol criteria (55 dBA over any hour) at the PORs. Therefore, there is no requirement for additional noise control. It is concluded that the location can be operated in compliance with MOECC's limits. No noise control is recommended for the design of the proposed improvements.

4.4.2.4 Mitigation Measures for Operational Effects

Based on the results of the assessment, noise control mitigation measures are not required within the Study Area. The public may make a noise complaint under the Town of Whitchurch-Stouffville By-Law No. 2015-172-RE by contacting the Town's Customer Service Centre.

A Complaint Response Protocol will be put in place for the project that includes procedures for receiving and addressing operation noise complaints. This protocol will include contact information, records management and issues resolution.

In addition, Metrolinx's community office located at 4142 Sheppard Ave. E. is open every Tuesday, Wednesday, and Thursday from 11 am to 2:30 pm for the community to visit and discuss any questions or concerns. Members of the public can also contact Metrolinx with any concerns by calling 416-202-5837 or emailing Azim.Ahmed@metrolinx.com.

4.4.2.5 Net Effects

Although slight noise increases are anticipated, as a result of operations changes, because they meet the MOECC criteria for noise limits, net effects are not anticipated to be noticeable to the average observer at the points of reception studied.



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4.4.3 Traffic and Transportation

4.4.3.1 Potential Construction Effects

Traffic: Construction activities are anticipated to commence in 2018. As part of the proposed Facility improvements, the west portion of the PPUDO is being reconstructed, and the West Parking Area will be removed. In general, traffic effects associated with construction activities are expected to be limited. Construction activities will be carried out in stages, and will maintain vehicular access and internal circulation during construction activities. A portion of parking stalls in the West Parking Area will be lost during construction; however, the bus loop and PPUDO will be maintained throughout construction. It is anticipated that an adequate number of parking stalls will remain in the East Parking Area to accommodate projected parking demand throughout construction.

Existing site access (i.e., York-Durham Line on the east side of the property, and Bethesda Side Road on the south side of the property) will be maintained during construction, with the exception of an approximately 72-hour period, at which time vehicle access to the York-Durham Line entrance will be diverted to the Bethesda Side Road entrance. The study area intersections (i.e., Tenth Line and Bethesda Side Road, and York-Durham Line and Bethesda Side Road) will continue to operate at a good level of service during peak travel hours.

Transit: Local transit services do not operate out of the Study Area, and it is understood that a connection to the local transit network is not being planned. As such, construction activities are not anticipated to affect local transit routes.

Pedestrians and Cyclists: Due to the remote location of the Study Area, pedestrian and bicycle trips are not considered a common means of accessing the Lincolnville Layover and GO Station. Construction activities are not anticipated to affect local pedestrian or cyclist access to the Study Area. Existing covered bike storage and access routes will be maintained.

4.4.3.2 Mitigation Measures for Construction Effects

Construction staging will maintain vehicular access and internal circulation during construction activities. The bus loop and PPUDO will be maintained during all stages.

Pedestrian crosswalks will be provided within the Study Area to direct pedestrians from the parking lot and to the station platform.

4.4.3.3 Potential Operations Effects

Study Area intersections are expected to operate at a good level of service and within capacity during the peak morning and evening travel times in the 2019 and 2031 horizon years.

The removal of the entire West Parking Area is not anticipated to affect future parking use, as the current parking at the facility operates at approximately 40% capacity.



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4.4.3.4 Mitigation Measures for Operational Effects

No operational effects mitigation measures are required for traffic and transportation resources, as there are no direct or indirect effects anticipated for this project.

4.4.3.5 Net Effects

Access to the Study Area will be maintained, and traffic will continue to operate at acceptable levels at all intersections. As such, net effects to traffic and transportation are not expected in association with the construction or operation of the improved Facility.

4.5 SUMMARY OF POTENTIAL EFFECTS, MITIGATION MEASURES, NET EFFECTS AND MONITORING REQUIREMENTS

Table 4-2 summarizes the effects, mitigation measures and proposed monitoring for the various components of the environment described in the previous sections of the EPR.

Metrolinx is responsible for confirming that the recommendations are met but may direct a third party to undertake future activities (i.e., contractor, technical consultant). The intent of this table is to provide a summary of those commitments and responsibility of third-parties where Metrolinx determines applicability. These are recommendations that will be confirmed as project planning advances.



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Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
Natural Environment					
Vegetation and Vegetation Species at Risk (refer to Section 4.1.1) Construction Effects	Direct loss of vegetation where removal of vegetation is required for construction, including permanent loss of vegetation around the Lincolnville GO Station.	 Minimize the area of clearing/avoid construction activities beyond construction areas. Remove vegetation in accordance with the guidelines indicated in the <i>Migratory Bird Conservation Act</i>. Preserve local seed banks if appropriate, use native seed mixes for restoration efforts, and store and reuse existing topsoil where appropriate. Restore areas disturbed during construction immediately following construction activities. Implement measures to limit erosion during 	Metrolinx/ Contractor	There will be a minor loss of vegetated areas following recommended mitigation measures.	M fo de co m V fo
Vegetation and Vegetation Species at Risk (refer to Section 4.1.1) Operational Effects	Operational changes at the site are not anticipated to result in significant effects from the loss of vegetation cover.	 Adaptive management strategies may include supplemental plantings, and/or control of unacceptable species. 	Metrolinx/ Contractor	There will be a minor loss of vegetated areas following recommended mitigation measures.	M fc ac dc cc m V fc
Migratory Birds (refer to Section 4.1.2) Construction Effects	Although no nests or suitable habitat was found within the Study Area, if nests are established before construction activities commence, construction could disturb or destroy nests during clearing of vegetation and removal of structures.	 Avoid vegetation (trees, shrubs and herbaceous vegetation) clearing/removal and structure removal during primary nesting period (April 1 - August 31). If construction is required during the primary nesting period, an avian biologist must be retained to conduct nest sweeps of the area prior to works within 24 hours of works occurring. If no nests or signs of nesting are found, clearing or other activities may proceed in the area searched. 	Metrolinx/ Contractor / Consultant	No net effects following recommended mitigation and potential monitoring measures.	lf In re cc er di

Monitoring Activity	Monitoring Responsibility
onitor revegetated areas annually two years and implement aptive management to correct ficiencies. The success of mpensation vegetation will be onitored in accordance with the getation Compensation Protocol Metrolinx Projects.	Contractor/ Consultant
onitor revegetated areas annually two years and implement aptive management to correct ficiencies. The success of mpensation vegetation will be onitored in accordance with the getation Compensation Protocol Metrolinx Projects.	Metrolinx/ Contractor
nests are found, an Environmental spector or qualified biologist will gularly monitor construction to nfirm that activities do not croach into nesting areas or sturb active nesting sites.	Consultant (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	Monitoring Activity	Monitoring Responsibility
		• At any time of the year, should a nesting bird be present when construction activity is under way, work that could disrupt nesting activities in the area must discontinue and a biologist with avian expertise will be required to develop a site-specific mitigation plan that meets all regulatory requirements.				
Migratory Birds (refer to Section 4.1.2) Operational Effects	It is not anticipated that migratory birds will be affected by the proposed improvements as there are no significant changes to operational procedures proposed.	 No mitigation measures are required for the operational phase. 	Metrolinx/ Consultant	No net effects following recommended mitigation and potential monitoring measures.	No monitoring activities are required.	Not applicable.
Bird Species at Risk – Bobolink and Eastern Meadowlark (refer to Section 4.1.2) Construction Effects	Although individuals were not observed breeding at the site, construction may disturb or destroy nests during clearing of vegetation and removal of buildings.	 Mitigation measures provided for migratory birds are also applicable to bird SAR. 	Metrolinx/ Contractor / Consultant	No net effects following recommended mitigation and potential monitoring measures.	Monitoring activities will be developed in accordance with any registration and/or permitting requirements under the ESA, 2007.	Consultant (Environmental Inspector)
Bird Species at Risk – Bobolink and Eastern Meadowlark (refer to Section 4.1.2) Operational Effects	It is not anticipated that Bobolink and Eastern Meadowlark will be affected by the proposed improvements as there are no significant changes to operational procedures proposed.	No mitigation measures are required for the operational phase.	Metrolinx/ Consultant	No net effects following recommended mitigation and potential monitoring measures.	No monitoring activities are required.	Not applicable.
Bird Species at Risk – Barn Swallow (refer to Section 4.1.2) Construction Effects	Suitable breeding habitat does not exist for this species. Construction may disturb or destroy nests during clearing of vegetation and removal of buildings.	 Mitigation measures provided for migratory birds are also applicable to bird SAR. 	Metrolinx/ Contractor / Consultant	o net effects following recommended mitigation and potential monitoring measures.	Monitoring activities will be developed in accordance with any registration and/or permitting requirements under the ESA, 2007.	Consultant (Environmental Inspector)
Bird Species at Risk – Barn Swallow (refer to Section 4.1.2) Operational Effects	It is not anticipated that Barn Swallow will be affected by the proposed improvements as there are no significant changes to operational procedures proposed.	 No mitigation measures are required for the operational phase. 	Metrolinx/ Consultant	No net effects following recommended mitigation and potential monitoring measures.	No monitoring activities are required.	Not applicable.
Potential Turtle Wintering Area and slow-moving and ground-dwelling Wildlife (refer to Section 4.1.2) Construction Effects	Slow-moving and ground-dwelling wildlife could be encountered in work areas during construction, including reptiles (snakes and turtles) and amphibians.	 Mitigation measures for Vegetation will also mitigate the effects on slow-moving and ground-dwelling wildlife. Regular visual searches for reptiles (turtles and snakes) are recommended. 	Metrolinx/ Consultant (Detailed Design) / Contractor	No net effects following recommended mitigation and monitoring measures.	An Environmental Inspector will regularly monitor that activities are conducted in accordance with mitigation plans and work is conducted from within the specified work zones, where applicable.	Consultant (Environmental inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
		 If reptiles are encountered during construction, they should be permitted to flee the area, or moved outside the construction area in consultation with a qualified biologist. Any observations of SAR should be reported to MNRF within 48 hours 			Co mc Ve for
Potential Turtle Wintering Area and slow-moving and ground-dwelling Wildlife (refer to Section 4.1.2) Operational Effects	It is not anticipated that slow- moving/ground dwelling wildlife will be significantly affected by the proposed improvements at the site, as there are no significant changes to operational procedures proposed.	No mitigation measures are required for the operational phase.	Metrolinx/ Consultant	No net effects following recommended mitigation and potential monitoring measures.	No rec
Surface Water and Aquatic Environment (refer to Section 4.1.3)	Site grading and site water management could alter flow regimes of Reach 1 and negatively affect downstream habitat.	 Time work on Reach 1 to meet July 1 to September 15 coldwater fisheries timing window. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures.	An cor mc
Construction Effects Erosion and downstrea transport via Reach 1 c	Erosion and downstream sediment transport via Reach 1 could affect fish	 Prevent sediment from entering waterbodies. 			ina
	habitat	 Reducing the area and duration of soil exposure. 			wit wh
		 Reduce runoff velocities, and divert runoff away from exposed soils 			
		 Implement debris/waste containment and removal. 			
		Retain existing vegetation where feasible.			
		 Complete post-construction site restoration and restore disturbed substrate areas to pre-construction conditions to the extent possible. 			
		 A Hazardous Materials and Fuel Handling Plan will be developed before the construction phase begins. 			
		 All toxic material will be stored in secure enclosures away from sensitive areas to prevent leaks and spills. 			
		 Spill cleanup materials will be maintained at the work site. 			
		Contaminant spills will be reported as per the Environmental Protection Act, 1990.			

Monitoring Activity	Monitoring Responsibility
Compensation vegetation will be nonitored in accordance with the regetation Compensation Protocol or Metrolinx Projects.	
lo monitoring activities are equired.	Not applicable.
In Environmental Inspector will onduct regular inspections to nonitor that construction and estoration activities are conducted in accordance with mitigation plans and all work is conducted from within the specified work zones, where applicable.	Consultant (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	Monitoring Activity	Monitoring Responsibility
Surface Water and Aquatic Environment (refer to Section 4.1.3)	Operational effects are not anticipated to affect Reach 1.	A Hazardous Materials and Fuel Handling Plan will be developed before the construction phase begins.	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures.	No monitoring activities are required.	Not applicable.
Operational Effects		 All toxic material will be stored in secure enclosures away from sensitive areas to prevent leaks and spills. 				
		 Spill cleanup materials will be maintained at the work site. 				
		 Contaminant spills will be reported as per the Environmental Protection Act, 1990. 				
Stormwater management (refer to Section 4.1.4) Construction Effects	An increase in the impervious surface could affect water balance.	• The MOECC's Guideline B-6 Guidelines for Evaluating Construction Activities Impacting on Water Resources will be referenced when developing erosion and sediment control plans.	Consultant (Detailed Design)/ Contractor	Water quality and water balance will be maintained for storm flows. No net effects following design criteria.	No monitoring activities are required.	Not applicable.
		 Design of new or altered features to take into account additional impervious surfaces and potential changes to runoff quantity and quality. 				
		 Runoff associated with the modified asphalt storage area will be collected by the existing parking lot stormwater system. 				
		 Runoff from the additional track areas will be passed through a new bioretention cell to achieve an enhanced level of water quality. 				
		 An Erosion and Sediment Control Plan (ESC) will be developed prior to construction in consultation with the TRCA. 				
Stormwater management (refer to Section 4.1.4) Operational Effects	Future operations will not affect the flow of stormwater within or beyond the Study Area.	 Runoff from the additional track areas will be passed through a new bioretention cell to achieve an enhanced level of water quality. 	Consultant (Detailed Design)/ Contractor	Water quality and water balance will be maintained for storm flows. No net effects following design criteria.	No monitoring activities are required.	Not applicable.
		• A water balance analysis will be conducted for the areas of the site where modifications are proposed.				

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
Groundwater Quality and Quantity (refer to Section 4.1.5) Construction Effects	Construction dewatering and final end uses of the Site may negatively affect water well quality and quantity of private wells. Construction has the potential for accidents and spills.	 An Environmental Mitigation and Monitoring Plan will be developed prior to construction. Where dewatering will occur and discharge is proposed to the natural environment, appropriate sediment and erosion control measures should be in place. A Permit to Take Water or an EASR may be required. The need for and extent of private well water quality testing, sediment and erosion control, active drainage, and a permit to take water will be confirmed as part of final design, if required. Use of a Contractor who is certified by Smart About Salt, and best management practices for salt and snow shall be implemented. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures to limit construction dewatering and manage spills risks.	Ar co co Mi fol
Groundwater Quality and Quantity (refer to Section 4.1.5) Operational Effects	The surrounding groundwater is at risk of contamination due to spills and infiltration of contaminants that could enter the site as a result of operations. Operational dewatering is not anticipated, however could be required if excavations encounter a high water table.	 The requirements of the Clean Water Act policies, as they apply to HVA or SGRA, should be considered during the design phase of the project. Refueling of equipment will be carried out in proper spill containment areas whenever possible. Best management protocols should be implemented during construction and operation such as a Risk Management Plan, secondary containment of any temporary or permanent fuel storage, maintaining spill response kits onsite, and preparation of a spill response plan and proper management. Winter maintenance activities shall be undertaken by persons who are certified by Smart About Salt. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures to limit operational dewatering and manage spills risks.	Ar co co Ma fol

Monitoring Activity	Monitoring Responsibility
Environmental Inspector will nduct regular inspections, to nfirm that the Hazardous aterials and Fuel Handling Plan is lowed.	Consultant (Environmental Inspector)
Environmental Inspector will nduct regular inspections, to nfirm that the Hazardous aterials and Fuel Handling Plan is lowed.	Consultant (Environmental Inspector)
Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	Monitoring Activity	Monitoring Responsibility
Significant Groundwater Recharge Area (SGRA) and Highly Vulnerable Aquifer (HVA) (refer to Section 4.1.5) Construction Effects	Construction dewatering and final end uses of the Site could negatively affect groundwater quality and quantity.	 The requirements of the Clean Water Act policies, as they apply to HVA or SGRA, should be considered during the design phase of the project. Refueling of equipment will be carried out in proper spill containment areas whenever possible. Best management protocols should be implemented during construction and operation such as a Risk Management Plan, secondary containment of any temporary or permanent fuel storage, maintaining spill response kits onsite, and preparation of a spill response plan and proper management. The need for a pre-and post-construction water balance for the Site should be confirmed during the design phase. 	Consultant (Detailed Design)/ Contractor	TBD	An Environmental Inspector will conduct regular inspections, to confirm that the Hazardous Materials and Fuel Handling Plan is followed.	Consultant (Environmental Inspector)
Significant Groundwater Recharge Area (SGRA) and Highly Vulnerable Aquifer (HVA) (refer to Section 4.15) Operational Effects	The surrounding groundwater is at risk of contamination due to spills and infiltration of contaminants that could enter the site as a result of operations. Operational dewatering is not anticipated, however could be required if excavations encounter a high water table.	 The requirements of the Clean Water Act policies, as they apply to HVA or SGRA, should be considered during the design phase of the project. Refueling of equipment will be carried out in proper spill containment areas whenever possible. Best management protocols should be implemented during construction and operation such as a Risk Management Plan, secondary containment of any temporary or permanent fuel storage, maintaining spill response kits onsite, and preparation of a spill response plan and proper management. Winter maintenance activities shall be undertaken by persons who are certified by Smart About Salt. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures to limit operational dewatering and manage spills risks.	An Environmental Inspector will conduct regular inspections, to confirm that the Hazardous Materials and Fuel Handling Plan is followed.	Consultant (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	Monitoring Activity	Monitoring Responsibility
Well Head Protection Area D (WHPA-D) of the Whitchurch- Stouffville Water Supply System (refer to Section 4.1.5) Construction Effects	Spills of DNAPL or other listed chemicals at the site could negatively affect municipal water supplies.	 The York Region's Risk Management Department will be contacted to make a detailed review of the design prior to construction. In accordance with the ORM <i>Conservation</i> <i>Act</i>, a Site Management and Contingency Plan should be developed for any areas falling within the WHPA of a municipal system. Storage requirements for the existing rail use on the site should be discussed with the Ministry to determine best management practices for existing industrial uses within highly restricted zones such as this one. A Hazardous Materials and Fuel Handling Plan will be developed before the construction phase. An emergency response and communications plan, including a spill response plan, will be developed and followed throughout the operation. Hazardous material and fuel storage, refueling and maintenance of trains and equipment will occur within designated areas only. Spills will be immediately contained and cleaned up in accordance with provincial regulatory requirements and the contingency plan. Winter maintenance activities will be undertely by accessed activities will be 	Consultant (Detailed Design)/ Contractor	TBD	An Environmental Inspector will conduct regular inspections, to confirm that the Hazardous Materials and Fuel Handling Plan is followed.	Construction Contractor (Environmental Inspector)
		undertaken by persons certified by Smart About Salt.				
Well Head Protection Area D (WHPA-D) of the Whitchurch- Stouffville Water Supply System (refer to Section 4.1.5) Operational Effects	The surrounding groundwater is at risk of contamination due to spills and infiltration of contaminants that could enter the site as a result of operations. Operational dewatering is not anticipated, however could be required if excavations encounter a high water table.	 The requirements of the Clean Water Act policies, as they apply to HVA or SGRA, should be considered during the design phase of the project. Refueling of equipment will be carried out in proper spill containment areas whenever possible. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended mitigation measures to limit operational dewatering and manage spills risks.	An Environmental Inspector will conduct regular inspections, to confirm that the Hazardous Materials and Fuel Handling Plan is followed.	Consultant (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
		 Best management protocols should be implemented during construction and operation such as a Risk Management Plan, secondary containment of any temporary or permanent fuel storage, maintaining spill response kits onsite, and preparation of a spill response plan and proper management. Winter maintenance activities shall be undertaken by persons who are certified by Smart About Salt. 			
Soil Quality (refer to Section 4.1.6) Construction Effects	Potential for excess soil or other construction waste to be generated and require management including re-use on site, re-use off-site or disposal.	 A Hazardous Materials and Fuel Handling plan will be developed prior to construction activities to confirm that fuels and other hazardous materials are handled and stored in a safe manner. All excavated materials will be stockpiled temporarily in accordance with MOECC's guidelines. A Soil Management Plan will be prepared by a qualified person prior to construction to address any contamination found during construction work and the management of all excess soils. The construction contractor will be required to develop and implement a site-specific Health and Safety Plan and a Spill Prevention and Contingency Plan. An Excess Materials Management Plan will be developed to address handling of excess materials and will have regard to the MOECC's 2014 Excess Soil – A Guide to best Management Practices. Geotechnical studies will be undertaken prior to construction to determine the presence of fill or impacted soils, and the presence of contaminated soils or aroundwater. 	Consultant (Detailed Design)/ Contractor	No net effects are anticipated as a result of construction and operation.	Shou of co exce cons tests level Spills and o provi and t resp time: be re Actic

Monitoring Activity	Monitoring Responsibility
nould visual or olfactory evidence contamination be identified in the cess soils generated during nstruction activities, appropriate sts to determine contaminant vels will be undertaken. bills will be immediately contained d cleaned up in accordance with ovincial regulatory requirements d the contingency plan. A spill sponse kit will be on-site at all nes during construction. Spills will reported to the Ontario Spills tion Centre at 1-800-268-6060.	Construction Contractor (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
Soil Quality (refer to Section 4.1.6) Operational Effects	Potential for spills and releases associated with site construction and site operations to affect on-site soil quality.	 A Hazardous Materials and Fuel Handling Plan will be developed to confirm that fuels and other hazardous materials are handled and stored in a safe manner. An Operations Phase Spill Prevention and Contingency Plan will be developed, implemented and maintained. 	Consultant (Detailed Design)/ Contractor Metrolinx	No net effects are anticipated as a result of construction and operation.	Sho of co exce oper tests leve Spill and prov and resp time be re Actio
Tree Inventory (refer to Section 4.1.7) Construction Effects	Trees to be disturbed and removed during construction activities	 Standard tree protection fencing and timing for vegetation removal – no works inside tree protection fencing. Clearly mark and protect trees not designated for removal. Construction equipment will not be allowed to idle or exhaust within the TPZ. Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protected areas. All felled trees are to be removed from the site, no lumber or brush from the clearing is to be stored on the site. Construction best practices to limit spills and compaction from affecting roots of trees to be retained. Metrolinx will coordinate tree replacement/compensation with public agencies through implementation of the Vegetation Compensation Protocol and Landscape Plan. The required process will be carried out if tree removal are requested during restricted time indicated in the <i>Migratory Birds Convention Act</i>. 	Consultant (Detailed Design)/ Contractor	The Project will require the removal of 31 trees. Limited net effects to be compensated for through the implementation of the Metrolinx Vegetation Compensation Protocol.	Tree insp cons as ro Mair trees mair

Monitoring Activity	Monitoring Responsibility
uld visual or olfactory evidence ontamination be identified in the ess soils generated during ration activities, appropriate s to determine contaminant els will be undertaken. Is will be immediately contained cleaned up in accordance with vincial regulatory requirements the contingency plan. A spill ponse kit will be on-site at all es during construction. Spills will eported to the Ontario Spills on Centre at 1-800-268-6060.	Construction Contractor (Environmental Inspector)
e protection fencing shall be bected periodically during struction activities and repaired equired. Intenance staff will monitor all s and undertake required intenance throughout operations.	Construction Contractor (Environmental Inspector) Metrolinx maintenance staff

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
Tree Inventory (refer to Section 4.1.7) Operational Effects	Trees could be affected by ongoing operations as a result of spills, root compaction due to stray pedestrian or vehicular traffic, or deteriorated soil or water quality as a result of surface salting during the winter.	 Metrolinx will coordinate tree replacement/ compensation with public agencies through implementation of the Vegetation Compensation Protocol. The required process will be carried out if tree removal are requested during restricted time indicated in the Migratory Birds Convention Act. 	Consultant (Detailed Design)/ Contractor	Limited net effects to be compensated for through the implementation of the Metrolinx Vegetation Compensation Protocol.	Mai tree ope mai
Existing Land Uses (refer to Section 4.2.1) Construction Effects	Temporary disruption to site users during construction activities.	 Signage and wayfinding aides during construction to help guide vehicular, cyclist, and pedestrian traffic around construction areas. Provide advanced notice of construction activities and construction staging to help users plan their trip. Traffic controls and wayfinding measures will be in place and monitored for effectiveness during construction, as required. Members of the public can contact Metrolinx with any concerns. 	Consultant (Detailed Design)/ Contractor	Nuisance effects during construction will be temporary.	Cor moi Env
Existing Land Uses (refer to Section 4.2.1) Operational Effects	There is potential for nuisance effects related to operation and maintenance of the Facility.	 No land use compatibility effects are associated with the Project, no specific mitigation measures are required. Mitigation measures related to potential nuisance effects are outlined in Air Quality, Noise and Vibration and Traffic and Transportation. 	Not applicable.	No net effects.	Cor moi Env
Archaeological Resources (refer to Section 4.3.1) Construction Effects	No archaeological artefacts found. No effects anticipated.	 No mitigation measures required. 	Not applicable.	No net effects.	No req
Archaeological Resources (refer to Section 4.3.1) Operational Effects	No archaeological artefacts found. No effects anticipated.	 No mitigation measures required. 	Not applicable.	No net effects.	No req
Built Heritage (refer to Section 4.3.2) Construction Effects	No effects anticipated on Conditional Heritage Properties.	 No mitigation measures required. 	Not applicable.	No net effects.	No req

Monitoring Activity	Monitoring Responsibility
ntenance staff will monitor all s during the first year of ration and undertake required ntenance, as required.	Construction Contractor (Environmental Inspector) Metrolinx maintenance staff
istruction activities will be hitored by a qualified ironmental Inspector	Consultant (Environmental Inspector)
istruction activities will be hitored by a qualified ironmental Inspector	Contractor/ Consultant (Environmental Inspector)
monitoring activities are uired.	Not applicable.
monitoring activities are uired.	Not applicable.
monitoring activities are uired.	Not applicable.

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table 4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	
Built Heritage (refer to Section 4.3.2) Operational Effects	No effects anticipated on Conditional Heritage Properties.	 No mitigation measures required. 	Not applicable.	No net effects.	No m requi
Technical Environme	nt			-	
Air Quality (refer to Section 4.4.1) Construction Effects	Emissions from fuel combustion and fugitive dust during construction activities could temporarily decrease air quality.	 Develop and implement an Air Quality Management Plan for the construction phase to address dust, idling vehicles, and other emissions sources. 	Consultant (Detailed Design)/ Contractor	No net effects following recommended construction best management practices mitigation measures. Operations effects	No n requi Cons mon
		 Use temporary barriers to prevent soil erosion and control wind flow. 		within range of allowable effects under MOECC air quality	Envir
		 Introduce no-idling policy to control mobile equipment and other vehicle emissions. 		requirements.	
		 Ensure proper maintenance of equipment and vehicles operating in work areas. 			
		• Proper planning of construction phases and effective use of construction equipment to reduce dust and emissions.			
		 A non-chemical dust suppressant, such as Gorilla-Snot will be used during excavation/construction activities. 			
Air Quality (refer to Section 4.4.1) Operational Effects	Increase in volumes of train and vehicular traffic may decrease air quality, but will remain within MOECC allowable air quality limits.	 No mitigation measures required. 	Not applicable.	No net effects.	No m requi
Noise (refer to Section 4.4.2) Construction Effects	The project is compliant with MOECC limits without the requirement for noise control. No noise control is recommended for this project.	 The public may make a noise complaint under the Town of Whitchurch-Stouffville By-Law No. 2015-172-RE by contacting the Town's Customer Service Centre. 	Metrolinx / Contractor	No net effects	Cons moni
		 Metrolinx will adhere to the Town of Whitchurch-Stouffville By-Law 2015-172- RE. 			
		• Construction equipment will meet the sound level criteria from NPC-300, will be well maintained and operated with effective muffling devices as needed.			
		A protocol will be developed to identify and resolve issues associated with construction-related nuisance effects.			
			1		

Monitoring Activity	Monitoring
o monitoring activities are quired.	Not applicable.
o monitoring activities are quired. onstruction activities will be onitored by a qualified nvironmental Inspector	Not applicable. Consultant (Environmental Inspector)
o monitoring activities are quired.	Not applicable.
onstruction equipment will be onitored for excess noise.	Construction Contractor (Environmental Inspector)

Assessment of Potential Effects and Proposed Mitigation Measures February 23, 2018

Table4-2: Summary of Effects, Mitigation Measures and Monitoring

Component of the Environment	Potential Effects	Mitigation Measures	Mitigation Responsibility	Net Effects	Monitoring Activity	Monitoring Responsibility
Noise (refer to Section 4.4.2) Operational Effects	The project is compliant with MOECC limits without the requirement for noise control. No noise control is recommended for this project.	 The public may make a noise complaint under the Town of Whitchurch-Stouffville By-Law No. 2015-172-RE by contacting the Town's Customer Service Centre. Metrolinx will adhere to the Town of Whitchurch-Stouffville By-Law 2015-172- RE. A protocol will be developed to identify and resolve issues associated with operation- related nuisance effects. 	Metrolinx / Contractor	No net effects	No monitoring activities are required.	Not applicable.
Vehicular Traffic (refer to Section 4.4.3) Construction Effects	Temporary disturbance to vehicular traffic and parking areas during construction.	 Construction staging will maintain vehicular access and internal circulation at all times. The bus loop and PPUDO will be maintained during all stages. 	Consultant (Detailed Design)/ Contractor	Temporary effects during construction can be mitigated by following recommended mitigation measures.	Construction activities will be monitored by a qualified Environmental Inspector.	Contractor / Consultant (Environmental Inspector)
Vehicular Traffic (refer to Section 4.4.3) Operational Effects	No effects anticipated on vehicular traffic during operation.	 No mitigation measures required. 	Not applicable.	No net effects.	No monitoring activities are required.	Not applicable.

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5.0 CLIMATE CHANGE CONSIDERATIONS

Climate change is usually associated with any significant change in long-term weather patterns. Changes in the composition of the atmosphere include processes resulting in the alteration of global temperature and precipitation. These processes can ultimately lead to increased occurrence of extreme weather events such as floods, droughts, ice storms and heat waves. In an effort to mitigate the effect climate change can have on the environment, government agencies have created strategies and guidelines to reduce the rate of greenhouse gas (GHG) emissions into the atmosphere, including carbon dioxide.

The Government of Ontario has committed to reducing GHG emissions to 80% below 1990 levels by 2050 and has established two mid-term targets of 15% below 1990 levels by 2020 and 37% below 1990 levels by 2030 (MOECC, 2015).

The Ministry of Environment and Climate Change (MOECC) has developed a Climate Change Strategy (MOECC, 2015), which outlines the five areas that Ontario will focus on in order to achieve the GHG reduction targets, including:

- 1. A prosperous low-carbon economy with world-leading innovation, science and technology.
- 2. Government collaboration and leadership.
- 3. A resource-efficient, high-productivity society.
- 4. Reducing GHG emissions across sectors.
- 5. Adapting and thriving in a changing climate.

Metrolinx, an agency of the Province of Ontario, is committed to ensuring that the transit network, including new facilities, will have a low-carbon footprint and contribute to a clean and healthy environment for future generations (Metrolinx, June 2013), goals which are aligned with the MOECC Climate Change Strategy. Metrolinx will also align with the spirit of Bill 6, an Act to enact the *Infrastructure for Jobs and Prosperity Act* (2015). Section 3.11 of Bill 6 states that:

"Infrastructure planning and investment should minimize the impact of infrastructure on the environment and respect and help maintain ecological and biological diversity, and infrastructure should be designed to be resilient to the effects of climate change."

5.1 SUSTAINABILITY

Metrolinx has developed a Five-Year Sustainability Strategy 2013-2018 that outlines goals regarding how Metrolinx will implement a plan to meet the needs of the public and continue to improve the transportation system. Metrolinx's Sustainability Strategy is based on the International Association of Public Transport (UITP) and the American Public Transportation Association (APTA) sustainability commitments. These associations aim to enhance quality of life and promote sustainable transportation in urban areas. Both of these programs support



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becoming more sustainable by following a framework of requirements and measuring progress year over year. Deliverables listed in the Five-Year Strategy include:

- Establish an executive-sponsored corporate Sustainability Framework by 2015, addressing energy use, emissions and environmental management, and develop and implement workplans and supporting policies for priority initiatives.
- Attain APTA Sustainability Commitment Gold status by 2017 and UITP Sustainability Charter Full Signatory status by 2016.
- Establish a corporate Climate Adaptation Plan covering facilities, practices and protocols, by 2018.
- Introduce cleaner twin-engine Tier 4 locomotives to the GO Transit fleet in 2016, beginning an ongoing conversion program.

The strategies outlined in the UITP and APTA are consistent with the five MOECC Climate Change Strategy areas, as outlined above. APTA works to improve and advance public transportation and has set Transit Sustainability Guidelines. The guidelines outline emission and pollution control as well as how to efficiently use resources. UITP desires to improve quality of life by supporting and working to advance sustainable transportation in urban areas. UITP has written a Climate Action with Public Transport report. The report discusses recommendations to further mitigate climate change through the use of public transit. Some of the recommendations include having stronger international and local policies and bridging the financial gap between sustainable technologies and non-renewable resources. The UITP and APTA guidelines will help Metrolinx move towards the vision of achieving Ontario's Climate Change Strategy.

In planning and implementing the Project and additional initiatives to support RER on the Stouffville rail corridor, Metrolinx will continue to apply the key components of the Sustainability Strategy as applicable. This will include consideration of how future improvements to train service to mitigate climate change effects can be accommodated as part of the current improvements, and looking for opportunities to support sustainable transportation in project design.

5.2 EFFECT OF THE PROJECT ON CLIMATE CHANGE

The effect of the Project on climate change has been considered, specifically on how the Project would reduce the natural environment's ability to remove carbon from the atmosphere, and how the Project may support efforts to reduce GHG emissions.

5.2.1 Transit

The implementation of the proposed improvements to the Lincolnville Layover and GO Station will support improved transit services, thereby promoting public transportation and transit



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supportive neighbourhoods. Public transportation is a beneficial service that can reduce traffic congestion and reduce the need for new road infrastructure, as well as reduce carbon emissions and air quality concerns associated with automobile use. Improvements to transit will decrease the average commute time, even with an increasing population (Metrolinx 2008). Consequently, more people will use public transportation, which will result in a decrease to vehicular GHGs emitted per resident, leaving the air cleaner (Metrolinx 2008).

5.2.2 Vegetation

As noted in the Tree Inventory Plan (see Appendix A6 of this report), the construction will require the removal of trees and vegetation, which will result in a temporary loss of an existing carbon sink within the local environment of the Assessment Area. The majority of the trees to be removed are Manitoba Maple, a short-lived species.

Measures for the compensation of existing tree loss and replacement have been specified in the Arborist Report. The location and species of trees to be planted will be developed during the detailed design phase of the Project.

5.3 EFFECTS OF CLIMATE CHANGE ON THE PROJECT

Consideration has been given to how the changing climate has the potential to affect the Project and the proposed infrastructure for both the present (pre-construction and construction phases of the Project), as well as the future long-term operation of the Lincolnville Layover and GO Station.

5.3.1 Stormwater Management (SWM)

Precipitation, whether it is rainfall, snowfall, or other forms of frozen/liquid water, is the key climate and weather-related variable of concern in SWM. As a result of climate change, storm events are predicted to become more intense, which can result in larger volumes of precipitation at one time. Other climate variables such as temperature are major inputs to evaporation and snowmelt processes. Increases in temperature are likely to affect precipitation and snowmelt runoff volumes discharged to storm drainage systems, however, temperature is not considered in storm sewer design.

Current SWM practices include the use of Intensity-Duration-Frequency (IDF) data and design storms (e.g., Chicago Storm, Regional Storm) to design and size SWM features. A detailed SWM Plan will be implemented during the detailed design phase of the Project so that runoff from rainfall addresses the Town of Whitchurch-Stouffville's Sustainable Development Guidelines (January 2012). The SWM design may incorporate Low Impact Development (LID) measures, as appropriate, as LID technology has been successfully implemented in past projects.



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5.3.2 Erosion and Sediment Control

An increase in storm intensity can make erosion and sedimentation more likely in the Study Area, especially during construction. Erosion and sediment control (ESC) measures will be implemented during the construction phase of the Project so that stormwater runoff entering area sewers is not laden with sediment. The Greater Golden Horseshoe Area Conservation Authorities (GGHACA) Erosion and Sediment Control Guidelines for Urban Construction (December 2006) will be followed so that the proper ESC measures are installed during construction and monitored frequently, especially following heavy precipitation events, to identify damage and maintain or repair the controls as needed.



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6.0 CONSULTATION PROCESS

In accordance with Section 8 of *Ontario Regulation 231/08*, this section summarizes the consultation activities carried out with project stakeholders (public, property owners, review agencies, elected officials, and interested groups) and Indigenous communities during the course of the Project, including a summary of feedback and comments received and how they were considered. A Project Contact List (Appendix B) was continually updated in response to Project feedback and was utilized to inform stakeholders of key Project milestones.

6.1 CONSULTATION OVERVIEW

6.1.1 Approach to Consultation

The objectives for the consultation program were openness, transparency, access to information, early and ongoing opportunities for input, responsiveness, accountability, and accessible and accurate documentation. These objectives support the purpose of the TPAP, which is to support the design and delivery of a transit solution in a manner that addresses the objectives of provincial and regional transit policy, while limiting negative environmental effects.

Focused consultation activities have been tailored to meet the individual needs of the different groups being consulted. Different consultation activities provided the types of information requested by the different groups. For example, direct meetings with government review agencies allowed for a detailed review of specific design components that would require government permits prior to construction; while a public meeting allowed for a broad overview of the project and an opportunity for other stakeholders and Indigenous communities to ask specific questions of the project team based on their particular interests.

Feedback was sought throughout the Pre-Planning and TPAP stages of the study. Consultation activities included meeting review agencies and elected officials on an as-needed basis in advance of, and throughout the duration of the TPAP study, as well as early consultation prior to the formal initiation of the TPAP, and final consultation as part of the regulated process following the Notice of Commencement.

A contact list was developed, and updated throughout the Pre-Planning and TPAP stages of the study to identify interested parties. The following parties were included in the contact list:

- Government agencies and entities: contacted to confirm if they have an interest in the Project. Following initial contact, detailed technical information was provided on request for the agencies and entities to confirm that regulatory requirements have been met and to identify permits and approvals that are required.
- Elected officials: contacted as key stakeholders who understand the perspectives of and represent the constituency, and can communicate project updates to interested individuals who contact them for more information.



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- Members of the public, special interest groups, property owners, utilities and the business community: Members of the public were consulted through a direct mail-out of project information delivered via Canada Post mail drop distribution to approximately 7,500 residents throughout the Stouffville, Claremont and Uxbridge communities, and through a public meeting to present project information and conclusions.
- Indigenous communities: Potentially interested Indigenous communities included Williams Treaties First Nation communities and the Métis Nation of Ontario, and others as identified by the MOECC and Ministry of Transportation. Project information was provided to the communities to determine their levels of interest in the Project. Communities were also asked to provide input on how they perceive their Aboriginal or treaty rights to be affected by the Project, and preferred engagement methods. All listed communities were contacted early during, and follow-up contact was made to confirm interest.

The Pre-Planning stage of the study commenced with the identification by Metrolinx of the need for the Project and the development of a Feasibility Study. Consultation activities undertaken as part of Pre-Planning activities included the following key steps:

- Project introduction letters were sent to all contacts on the mailing list to describe the Project.
- Meetings with review agencies and elected officials were conducted to introduce and describe the Project.
- Letters were mailed to Indigenous communities to introduce the Project and determine community interest and potential effects on Treaty Rights.
- A public meeting was held on October 26, 2017 to show existing conditions, introduce the Project and describe the steps of the TPAP, and public meeting information was provided on the Project website and comments were requested by November 17, 2017.
- A dedicated Project website and email address were created, <u>www.metrolinx.com/lincolnville</u> <u>and lincolnville@metrolinx.com, to</u> encourage feedback, for receipt of comments and questions, and to post<u>available project documentation</u>.

The TPAP stage of the study commenced with the issuance of a Notice of Commencement. Consultation activities undertaken thereafter, as a part of the TPAP, included the following key steps:

- Notice of Commencement distributed to project stakeholders (including government agencies, elected officials, and members of the public) and Indigenous communities and published to local media and on the Project website, and environmental reports made available for public review.
- Notice of Online Engagement distributed to project stakeholders (including government agencies, elected officials, and members of the public) and Indigenous communities and published to local media and on the Project website.



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- Online engagement for stakeholders and Indigenous communities was undertaken, including encouraging digital feedback through an online survey, by providing a dedicated email address for receipt of comments and questions, and the providing of a link on <u>www.metrolinxengage.com</u> through which comments and questions could be submitted.
- Ongoing consultation with project stakeholders (including government agencies, elected officials, and members of the public) and Indigenous communities.
- Notice of Completion distributed to project stakeholders (including government agencies, elected officials, and members of the public) and Indigenous communities and published to local media and on website, and EPR made available in hard copy and electronic formats for public review.
- Final 30-day review of this EPR by interested parties.

Metrolinx has the ultimate responsibility for the safe and effective implementation of the Project, and will manage consultation approaches consistently with applicable regulations and standards, making reasonable effort to resolve issues, and track outstanding issues and commitments through subsequent Project phases.

6.1.2 Record of Consultation

Comments and questions arising from consultation activities were tracked and managed on an ongoing basis and incorporated into the development of the EPR as appropriate. All documents produced for consultation activities, including a comment tracking table and registry, were maintained as a part of a Record of Consultation (Appendix B). The Record of Consultation includes the following:

- A Consultation Log that documents consultation activities and includes information on relevant correspondence, notices, presentation materials and communication items for the Project.
- A Comment Tracking Table used to track comments received and responses provided.
- Copies of correspondence letters between Metrolinx and interested parties (contact details redacted as required to meet privacy legislation).
- Copies of notices and presentation materials, website content, agendas and meeting minutes.
- A commitments registry which tracks commitments made during the TPAP, including those that have been addressed in the EPR, and those that will require additional activity after the issuance of the Notice of Completion.

6.1.3 Identification of Interested Parties

Potentially interested parties were initially identified through review of MOECC's Government Review Team (GRT) list, reaching out to local and regional municipal bodies and agencies with



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jurisdiction in the Study Area, obtaining a list of Indigenous community contacts from the MOECC and MTO, developing a distribution map for Canada Post mailings within the Stouffville, Claremont and Uxbridge communities, obtaining a list of property owners within 30m of the Study Area, and identifying any elected officials who may have an interest in the Project. The contact list for the Project has evolved throughout the EA process, based on the level of interest expressed by individuals or additional guidance received by regulatory bodies throughout the study. A mailing list and mailing distribution map was prepared and is included in Appendix B.

6.1.3.1 Agencies and Public Bodies

Representatives from the following public bodies were included in the stakeholder mailing list.

Federal Government

- Canadian Environmental Assessment Agency
- Transport Canada

Provincial Government

- Infrastructure Ontario
- Ministry of Indigenous Relations and Reconciliation
- Ministry of Community Safety and Correctional Services
- Ministry of Environment and Climate Change
- Ministry of Municipal Affairs and Housing
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Ministry of Transportation
- Ontario Growth Secretariat
- Toronto and Region Conservation Authority

Municipal Government and Related Municipal Bodies

- Town of Whitchurch-Stouffville
- Municipal police, fire and emergency services
- vivaNext



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- York Catholic District School Board
- York Region
- York Region District School Board- Planning Services
- City of Pickering
- Durham Region
- Town of Uxbridge

6.1.3.2 Elected Officials

The following elected officials were contacted as part of the Project and included in the stakeholder list:

Members of Parliament

• Markham-Stouffville – Jane Philpott

Members of Provincial Parliament

- Oak Ridges-Markham Helena Jaczek
- Durham Granville Anderson

Regional and Municipal Officials

- Town of Whitchurch-Stouffville Justin Altman (Mayor), Iain Lovvat (Councillor Ward 5)
- City of Pickering Dave Ryan (Mayor), Shaheen Butt (Councillor Ward 3)
- Town of Uxbridge Gerri Lynn O'Connor (Mayor), Pamela Beach (Councillor Ward 1)
- Durham Region Roger M. Anderson (CEO and Chair), David Pickles (Councillor Ward 3

6.1.3.3 Other Stakeholders

Stakeholders who may have an interest in the project and were not identified through GRT review and consultation with agencies were contacted through email, where email addresses were available, and direct mail where address information was available. The stakeholders contacted include:

Interest Groups and Community-Based Organizations

- Business improvement areas
- Transport Action Ontario



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Individuals and Land Owners

- Property and business owners, as well as ratepayer groups, community organizations, and local interest groups within 2 km of the Project.
- Additional residents and businesses in the surrounding communities of Stouffville, Claremont and Uxbridge.

Businesses

- MTS Allstream
- Local Businesses

Utilities

- Enbridge Pipelines Inc.
- Hydro One Networks Inc.
- Local telecommunication companies

6.1.3.4 Identification of Indigenous Communities

As required under O. Reg. 231/08, Metrolinx sent a letter to the Director, Environmental Assessment and Approvals Branch at the MOECC, (October 11, 2017), requesting a list of bodies that may assist in identifying Indigenous communities which may have an interest in this TPAP study. The Ministry of Transportation was also consulted for a list potentially-interested Indigenous communities (September 14, 2017), as is typical for Metrolinx projects. The Ministry of Indigenous Relations and Reconciliation (MIRR) was contacted through email correspondence (October 13, 2017), and the Aboriginal and Treaty Rights Information System (ATRIS) of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) was referenced to further develop the list of Indigenous communities that may have an interest in this TPAP study.

Indigenous communities are considered to be separate stakeholders, and are provided the same public consultation opportunities as the general public, in addition to community-specific engagement opportunities. The consultation process for Indigenous communities included confirming Indigenous interest in the project and determining how each interested Indigenous community would like to be engaged.

Metrolinx contacted the following Indigenous communities:

- Six Nations Grand River
- Haudenosaunee Confederacy Chiefs Council



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- Huronne-Wendat Nation
- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Georgina Island
- Chippewas of Mnjikaning (Rama) First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation
- Kawartha Nishnawbe First Nation
- Métis Nation of Ontario
- Mississauagas of the New Credit

The locations of the Study Area and the above-listed communities are shown on Figure 6-1



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2 / / 6	Stantec
46°N	Legend Study Area Municipal Boundary - Upper Tier Municipal Boundary - Lower or Single Tier Watercourse Waterbody
44.N	 A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa) B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois) B1 Crawford's Purchase, October 9th, 1783 (Mississauga) B2 Crawford's Purchase, 1784, 1787 And 1788 (Mississauga) B2 Crawford's Purchase, 1785 (Chippewa) C Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron) D Treaty No. 3, December 2nd, 1792 (Mississauga) E Haldimand Tract:from the Crown to the Mohawk, 1793 F Tyendinaga:from the Crown to the Mohawk, 1793 G Treaty No. 3 Jecember 2nd, 1792 (Mississauga) E Haldimand Tract:from the Crown to Joseph Brant, October 24th, 1795 H Treaty No. 5, May 22nd, 1798 (Chippewa) J Treaty No. 7, September 7th, 1796 (Chippewa) J Treaty No. 7, September 7th, 1796 (Chippewa) J Treaty No. 13A, August 2nd, 1805 (Mississauga) M Treaty No. 13A, August 2nd, 1805 (Mississauga) M Treaty No. 18, October 18th, 1815 (Chippewa) G Treaty No. 20, November 18th, 1818 (Chippewa) P Treaty No. 21, March 9th, 1819 (Chippewa) P Treaty No. 21, March 9th, 1819 (Chippewa) S Treaty No. 27, May 31st, 1819 (Mississauga) M Treaty No. 35, August 13th, 1833 (Wyandot or Huron) V Treaty No. 35, August 13th, 1836 (Chippewa) I Treaty No. 45½, August 9th, 1836 (Chippewa) I Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis) Z Treaty No. 72, October 30th, 1857 (Chippewa) A Treaty No. 72, October 31st and November 15th, 1923 (Chippewa and Mississauga) A Treaty No. 62, February 9th, 1857 (Chippewa) A Treaty No. 72, October 31st and November 15th, 1923 (Chippewa and Mississauga)
3	0 75 150 1:3,000,000 (At original document size of 11x17) Notes
42°1	 Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2016. Treaty boundaries adapted from Morris 1943 (1964 reprint).
	Project Location 160950966 REVA Province of Prepared by SPE on 2017-11-23 Ontario Client/Project METROLINX LINCOLNVILLE STATION
	Figure No. 6-1 Title Project Area in Relation to Surrounding Indigenous Community Locations

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6.1.4 Influence of Consultation on the TPAP/EPR

Consultation activities undertaken throughout the study were documented and incorporated into the EPR. Key comments received include input on project design, requests for inclusion on the Project mailing list, and requests to review and comment on project information and environmental reports.

Comments and questions received by the Project team were considered and addressed in the report or through direct follow-up by the Project Team.

Comments on Project design included input into existing conditions and potential Project effects. As a result of these comments and questions, updates to the conceptual design of the proposed improvements to the Lincolnville layover and GO Station were made where appropriate. These include the addition of mitigation measures to address groundwater recharge and water balance within the Study Area, and commitments to adhere to specific timing windows for construction activities that could affect breeding birds, fisheries, and other wildlife, and for the monitoring of vegetation post-construction.

Requests to be added to the Project mailing list resulted in the identification of additional contacts for consultation during Pre-Planning and the TPAP phases of the study, and refinements were made to the contact list. As updated contact details were provided for specific agency contacts, additional refinements were made.

Requests for Project information and environmental reports were responded to as soon as the Project information and reports were available. The Stage 1 and 2 Archaeological assessments were provided to the Huronne-Wendat First Nation for review at their request.

Details of comments and questions received and Project Team responses (including changes made to the EPR or Project designs) are available in the comment tracking table and registry in Appendix B.

6.2 PRE-PLANNING CONSULTATION

In advance of issuing the Notice of Commencement for the TPAP, Metrolinx consulted with members of the public, property owners, review agencies, Indigenous communities, elected officials, and other potentially interested groups. The objective of consultation activities during the Pre-Planning phase of the project was to introduce potentially interested parties to the Project, receive early information on potential concerns, and determine the level of interest in future consultation activities moving forward.



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6.2.1 Public Consultation

6.2.1.1 Project Website

A project website (<u>www.metrolinx.com/lincolnville</u>) was developed to provide an overview of the TPAP and Project information and to keep the public informed of public consultation opportunities, provide a summary of the public meeting, and to afford an opportunity to the public to provide comments. The website was updated with the following Project information and notices throughout the Pre-Planning phase of the study:

- Summary of the Project
- Project Contact Information
- Feasibility Study Report
- Notice of Public Meeting
- Public Meeting Story Boards

6.2.1.2 Public Meeting

A Notice of Public Meeting was prepared to invite members of the public, property owners, review agencies, Indigenous communities, elected officials, and interested groups to attend the meeting to learn about the Project and provide their questions and/or comments to members of the Project Team. The Notice of Public Meeting was published in the Sun Tribune Newspaper on September 27 and October 12, 2017. The Notice was also delivered via Canada Post mail drop distribution to approximately 7,500 residents throughout the Stouffville, Claremont and Uxbridge communities, and posted on the Project website.

The Public Meeting was held at Ballantrae Community Centre on October 26, 2017. The purpose of the Public Meeting was to introduce the Project and Project team, with the intention of providing information early in the process. Table 6-1 summarizes the key details of the Public Meeting.

At the meeting, attendees were encouraged to register at the door to be placed on the Project Mailing List, and to fill out comment forms (electronically through email to <u>lincolnville@metrolinx.com</u>, or on paper) following the session. It was requested that comments be returned by November 17, 2017.

The Public Meeting used poster board displays to provide an interactive tool for stakeholders to learn about the Project. The display boards presented as part of the Public Meeting included: background information related to the Stouffville rail corridor and RER commitments; the existing environmental conditions at the Lincolnville Layover and GO Station; the TPAP Process; and, next steps in the Project. The display boards were also posted on the Project



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website on October 26, 2017, to allow those unable to attend the Public Meeting to review the materials online.

The public meeting allowed Metrolinx to gather feedback on the Project and respond to questions and concerns. All comments and questions raised during the Public Meeting were addressed by the Project team. Meeting minutes, a copy of the poster board displays, and comment forms collected at the Public Meeting can be found in the RoC, in Appendix B.

Township	Whitchurch-Stouffville	
Date and Time	October 26, 2017 6:00 p.m. to 8:00 p.m.	
Location	Ballantrae Community Centre	
	5592 Aurora Road	
	Whitchurch-Stouffville, ON L4A 7X3	
Number of Attendees	8	
Feedback Forms Received	2	
Information Presented and Made Available	Background information related to the Stouffville rail corridor and RER commitments; the existing environmental conditions at the Lincolnville Layover and GO Station; the TPAP Process; and, next steps in the Project.	
Topics Discussed	Background information, Feasibility Study, Study Area existing conditions, and TPAP steps and timelines	

Table 6-1: Summary of Key Public Meeting Details

6.2.2 Agency Consultation

Agency consultation in the Pre-Planning phase of the Project focused on two key items: introducing the Project to government reviewers and municipal contacts; and seeking regulatory guidance from agencies on the Project and the TPAP.

Initial consultation with Agencies included introducing the Project through an introduction letter and a request for information regarding any required regulatory processes that the Project would be required to follow. Metrolinx also sent the MOECC a letter requesting direction on Indigenous consultation for the Project. Metrolinx offered Agency representatives a chance to meet to discuss the Project, including any concerns or requirements that needed to be met.

Agency consultation included information requests, telephone conversations, email correspondence, and meetings with agency representatives. The Ontario Ministry of Tourism, Culture and Sport, and the Ontario Heritage Trust were also contacted to collect information that was used to develop the baseline studies and Technical Study Reports. Metrolinx will continue to consult representatives from these agencies and others as the Project progresses through the TPAP. A summary of Agency consultation activities is provided below.



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- TRCA: Correspondence and meeting on existing conditions, project design, groundwater management and requirements for Voluntary Permit Review process.
- MOECC: Request for input on potentially-interested Indigenous communities, meeting to discuss TPAP approach.
- MNRF: Request for confirmation that species at risk are not likely to occupy the Study Area.
- MTCS, and the Ontario Heritage Trust: contacted to collect information that was used to develop the baseline studies and Technical Study Reports.
- Regional Municipality of York: correspondence related to Clean Water Act policies and groundwater management.

6.2.3 Elected Officials Consultation

Elected officials at the federal and provincial level in whose jurisdiction the Layover Facility falls were included on the Project mailing list. Municipal and Regional Councillors for the Wards in which the Layover Facility falls (Whitchurch-Stouffville Ward 5) and the wards adjacent to it (City of Pickering and Durham Region Ward 3 and Town of Uxbridge Ward 1) were also included on the Project mailing list. The full mailing list is available in Appendix B.

A meeting was convened with, and at the request of, a elected representatives from the City of Pickering and Durham Region, Ward 3 to introduce the Project and discuss Project information and the TPAP next steps. Pickering Ward 3 is located adjacent to Whitchurch-Stouffville Ward 5.

6.2.4 Indigenous Community Consultation

During the Pre-Planning phase of the Project, Metrolinx engaged with potentially affected Indigenous communities to understand their level of interest in the Project, gather feedback on the Draft Archaeological Assessment results, and determine the community's consultation needs and/or requirements.

O. Reg. 231/08 stipulates that at a minimum, Proponents must make reasonable and good faith efforts to engage with Indigenous communities by:

- Giving each Indigenous community on the contact list a copy of the Notice of Commencement.
- Ensuring Indigenous communities are provided with an opportunity to participate in the consultation process.
- Following up with telephone calls to ensure that Indigenous communities are aware of the Project.
- Provide Indigenous communities with notification of consultation events such as Public Meetings.



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- Provide relevant Project documentation and other material when requested.
- Discussing potential negative impacts of the Project on any constitutionally protected Indigenous and/or Treaty rights that may be identified and measures to mitigate these negative impacts.
- Ensuring consultation is flexible enough to meet the specific and unique needs of the Indigenous communities.

Thirteen Indigenous communities were contacted separately regarding the Project, and provided with a Project Introduction letter. The letter provided the opportunity to tailor the engagement approach to meet their requests. During Pre-Planning activities, the focus of Metrolinx's engagement was on establishing a relationship with these communities, introducing the Project, identifying and confirming their potential interest in the Project, ascertaining an understanding of their potentially affected Indigenous and Treaty rights, obtaining information about community-specific consultation preferences, and providing an opportunity to review and comment on the Draft Archaeological Assessment results. One community responded to the Project Introduction letter, requesting an opportunity to review the Stage 1 and2 Archaeological Assessment Reports, and had no revisions. Correspondence with Indigenous communities can be found in Appendix B.

6.2.5 Other Stakeholder Consultation

A Notice of Public Meeting was sent to project stakeholders on October 13, 2017 in multiple formats (i.e., email notices, mail drops, newspaper notices, etc) to invite community clubs, associations and environmental groups with a potential interest in the Project and other interested persons to attend the October 26, 2017 Public Meeting (see Section 6.2.1.2, above for more information) to learn about the Project and provide their questions and/or comments to members of the Project Team. Materials were made available to all stakeholders on the Project Website after the meeting to allow for ongoing opportunities to review the Project information and provide feedback to the Project Team.

6.2.6 Summary of Comments and Responses

Table 6-2 provides a summary of all comments received from consultation activities during the Pre-Planning phase of the Project. This table demonstrates the types of comments raised during consultation on the Project and how Metrolinx has address them. A complete record of all comments and questions raised and their corresponding responses can be found in the RoC in Appendix B.



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Stakeholder/ commenter	Торіс	Comment/Concern	Response/ influence on the Project and/or Draft EPR	
Regional Municipality of York	Source Water Protection	 Encouraging Low Impact Development (LID) measures. 	 LID measures will be examined as a part of detailed design. 	
		 Use a contractor who is certified by Smart about Salt. 	 All Metrolinx snow contractors are required to be Smart About Salt certified. 	
TRCA	Natural Environment	 Requested wellhead protection area and nearby wells to be included in mapping. 	Mapping updated.Reports provided.	
		 Requested environmental baseline studies for review. 		
Huronne- Wendat First Nation	Archaeology	 Requested to review Stage 1-2 Archaeological Assessment. 	 Assessment report provided. No additional concerns 	
		 Based on review, community determined no concerns regarding potential Indigenous archaeological artefacts 	noted.	
Local municipal Councillors	Public consultation	 Metrolinx should consider holding the next public meeting within the Town of Whitchurch-Stouffville. 	 This will be considered during the TPAP Addendum for the proposed new GO Station site. 	

Table 6-2: Summary of Comments Received and Responses Provided During Pre-Planning Activities

6.3 TPAP CONSULTATION

6.3.1 Notice of Commencement

Metrolinx issued the Notice of Commencement on November 30, 2017 in order to inform project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities of the initiation of the TPAP. The notice was issued in different media, as summarized in Table 6-3, below, including direct mailing, newspaper publication, and electronic media. The Notice of Commencement included information about the Project and TPAP as well as how to provide comments. A copy of the Notice of Commencement is provided in Appendix B.



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Table 6-3:	Publication Details for Notice of Commencement
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Media	Date of Publication	Audience
Newspapers: Stouffville Sun Tribune and Ajax Pickering News Adviser (two postings each)	November 30, 2017 and December 7, 2017	General public, Whitchurch- Stouffville community.
Direct mailing (Canada Post)	November 30, 2017	Property owners and residents/businesses within the communities of Stouffville, Claremont and Uxbridge.
Email	November 30, 2017	Elected officials, government agencies, Indigenous communities, project mailing list, those who signed in at the public meeting.
www.metrolinx.com/lincolnville	November 30, 2017	General public, interested parties.
Twitter (@Metrolinx)	November 30, 2017	General public, followers of Metrolinx's twitter feed.
Facebook (www.facebook.com/metrolinx)	November 30, 2017	General public, fans of Metrolinx's facebook page.

6.3.2 Public Consultation

Project documents and details were available on the Project website throughout the TPAP for public review and comment. Documents available include project notices, public meeting story boards and comment sheets, and Draft environmental reports. The public and interested parties were able to submit comments through the dedicated Project email address, via facebook posts and twitter tweets, and via telephone throughout the TPAP process. A very limited number of comments were received. Project specific comments are summarized in the table below.

Table 6-4: Summary	⁷ of Public Consultation	on Comments R	Received and F	Responses I	During the
TPAP.					

Торіс	Comment/Concern	Response/ influence on the Project and/or Draft EPR	
Project Design	• Your proposed reconfiguration of Lincolnville station will substantially increase the distance from the parking lot to the trains.	• Metrolinx will do our best to minimize the impact to users of our GO train and bus services from this location.	
Construction Phase	• Request information about how the bus and rail passenger service will be affected during construction.	Metrolinx will provide updates during the construction phase.	



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The majority of the comments received were not regarding Project specifics (i.e., correcting contact information, requests to be kept informed on the Project, train whistle concerns, future service concerns and requesting copies of reports).

6.3.2.1 Notice of Public Engagement

Metrolinx issued of Public Engagement on January 18, 2017 in order to inform project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities of the online engagement opportunity. The Notice was issued in different media, as summarized in Table 6-5, below, including direct mailing, newspaper publication, and electronic media. The Notice of Public Engagement included information announced the availability of an online engagement opportunity from January 18 to February 2 during which time project stakeholders and Indigenous communities could provide feedback through an online survey, and review a presentation summarizing the project, environmental effects, and proposed mitigation measures for the Project.

Media	Date of Publication	Audience
Newspapers: Stouffville Sun Tribune and Ajax Pickering News Adviser (two postings each)	January 18, 2018	General public, Whitchurch- Stouffville community.
Direct mailing (Canada Post)	January 18, 2018	Property owners and residents/businesses within the communities of Stouffville, Claremont and Uxbridge.
Email	January 19, 2018	Elected officials, government agencies, Indigenous communities, project mailing list, those who signed in at the public meeting.
www.metrolinx.com/lincolnville and https://www.metrolinxengage.com /en/engagement- initiatives/whitchurch-stouffville	January 19, 2018	General public, interested parties.
Twitter (@Metrolinx)	January 19, 2018	General public, followers of Metrolinx's twitter feed.
Facebook (www.facebook.com/metrolinx)	January 19, 2018	General public, fans of Metrolinx's facebook page.

Table 6-5: Publication Details for Notice of Public Engagement


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6.3.3 Agency Consultation

Government agencies were provided the Notice of Commencement and Notice of Public Engagement and were invited to provide comments and questions during the TPAP comment period. Key review agencies which had identified an interest in the Project (this included MOECC, Town of Whitchurch-Stouffville, York Region, TRCA and MTCS) were provided an opportunity to review and comment on the Draft EPR and supporting documents. During that time 117 responses were received. A high level summary of key comments and Metrolinx's responses, are below:

Stakeholder/ commenter	Торіс	Comment/Concern	Response/ influence on the Project and/or Draft EPR
MOECC	Air Quality	 It is not clear how the proponent will address local air quality impacts if contaminated soils are encountered. The emissions from the locomotives and the parking lot should be summarized in the final AQA Report. 	 Dust resulting from construction activities will be minimized by watering or applying other dust suppressants as required. This information will be provided in the final AQA Report.
MOECC	General	 The reader would benefit from a detailed site map. 	 A detailed Existing Site Map has been added to the Report.
MOECC	Groundwater	 The effect of the new facilities on infiltration should be assessed; adverse impacts should be mitigated at the design stage. 	 Best efforts are being made to ensure that pre- development infiltration/recharge rates are maintained.
Town of Whitchurch- Stouffville	Groundwater	 The proposed expansion is inside a WHPA; the York Region's Risk Management Department should be contacted for detailed review. 	Report has been updated to include a detailed review from York Region's Risk Management Department.
Town of Whitchurch- Stouffville	Construction Management	 Metrolinx is responsible to ensure public safety during construction. 	 Pedestrian access has been analyzed and incorporated into current staging design drawings to ensure the safety of all customers.
York Region	Groundwater	 It is strongly recommended that Risk Management Measures are put in place 	 Metrolinx is committed to employing best management practices



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Stakeholder/ commenter	Торіс	Comment/Concern	Response/ influence on the Project and/or Draft EPR	
		 in respect to chemical use and storage. Dense Non-Aqueous Phase Liquids (DNAPLs) are prohibited within WHPA-C under the Clean Water Act, 2006. The Development proposed on the subject property is within the WHPA and Oak Ridges Moraine. 	 both during construction and future operation. Metrolinx does not plan to store or use any DNAPLs during construction, or later ongoing operation and maintenance. Metrolinx is committed to following best management practices during both construction and ongoing operation and maintenance. 	
TRCA	Stormwater Management	 Please revise the SWM Report to include the increase in impervious areas as a result of the proposed works. Please clarify the expected impacts to Reach 1 and provide mitigation measures to address these impacts. 	 Reports updated to include the increase in impervious areas. Flow will be diverted from the bioretention swale to compensate for the reduced length and runoff. 	
TRCA	Trees	 To replace the lost trees, it is encouraged that a native plant restoration plan be developed through Metrolinx's Vegetation Compensation Protocol. 	 Report updated to include development of a Landscape Plan following Metrolinx's Vegetation Compensation Protocol. 	
MTCS	Archaeology	 Text does not appropriately describe the role of MTCS in archaeology. 	Report updated to clearly describe the role of MTCS.	



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6.3.4 Elected Officials Consultation

Elected officials were provided with the Notice of Commencement, Notice of Public Engagement, and invited to provide comments and questions throughout the TPAP process. During that time no responses were received.

6.3.5 Indigenous Communities Consultation

The Indigenous communities identified as having a potential interest in the Project were sent letters including the TPAP Notice of Commencement on November 17, 2017 and Notice of Public Consultation on January 19 and 22, 2018 by direct mail. Follow-up phone calls were made to all communities to confirm receipt of the Notices. Follow-up emails were sent to the communities providing a summary of the TPAP process, consultation efforts completed during the Pre-Planning phase of the study, and a schedule of TPAP dates, including the anticipated date of the Notice of Completion and the opportunity to comment on the Project. Indigenous communities contacted during the TPAP are listed in Appendix B.

No comments or questions were received from Indigenous community contacts after publishing the Notice of Commencement.

6.3.6 Other Stakeholder Consultation

The comments received from other stakeholders were requesting to be added to the Project Contact list. No other comments or questions were received from businesses or organizations or area property owners.

6.3.7 Notice of Completion

The Notice of Completion of the EPR was issued on February 22, 2018, addressing the O. Reg. 231/08 requirement to issue the notice within 120 days following the Notice of Commencement. The Notice of Completion of the EPR was published in the same media outlets and electronic media sources as the Notice of Commencement. The Notice was also mailed to interested parties on the Contact List, including anyone who requested to be added to the list throughout the Project study, and anyone who signed in with address information at the Public Meeting. Publication details for the Notice of Completion are outlined in Table 6-6. A draft Notice of Completion is included in Appendix B.

Table 6-6: Publication Details for Notice of Completion

Media	Date of Publication	Audience
Newspapers: Stouffville Sun Tribune and Ajax Pickering News Adviser (two postings each)	February 22, 2018 and March 1, 2018	General public, Whitchurch-Stouffville community



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Media	Date of Publication	Audience
Direct mailing (Canada Post)	February 22, 2018	Property owners and residents/businesses within the communities of Stouffville, Claremont and Uxbridge, people who signed in at the public meeting with address details, anyone who requested to be added to the Project mailing list
Email	February 22, 2018	Elected officials, government agencies, Indigenous communities, those who signed in at the public meeting
www.metrolinx.com/lincolnville	February 22, 2018	General public, interested parties
Twitter (@Metrolinx)	February 22, 2018	General public, followers of Metrolinx's twitter feed
Facebook (<u>www.facebook.com/metrolinx</u>)	February 22, 2018	General public, fans of Metrolinx's facebook page



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If an interested party has concerns about the Project, they are welcome to submit objections to the MOECC Environmental Approvals Access and Service Integration Branch for the Minister to consider. Objections must be provided in writing and can only be submitted during the 30-day review period for the EPR, commencing at the issuance of the Notice of Completion. A copy should also be provided to the Director, EAB of the MOECC and Metrolinx as the proponent. Information required for the objection must include:

- Contact information (name, mailing address, organization or affiliation, phone number and email address)
- Proponent (Metrolinx) contact information (name, address, phone number and representative/agency phone number)
- Brief description of the proponent's (Metrolinx) proposed undertaking, including location
- Basis for why further study is required, including relevance to Indigenous or treaty rights and matters of provincial importance that were not considered in the EPR
- Summary of how the objector has been involved in the consultation process (e.g. meetings, phone calls, emails, etc.)

The Ministry will forward a copy of the objections to Metrolinx for consideration. It is noted that Metrolinx will have less than a week to comment on the objections. During this time, Metrolinx can identify where in the EPR the appropriate information can be found, or provide the missing information.

Following the 30-day review period, the Minister has 35 days to provide comment and decide whether the Project has a negative effect on matters of provincial importance or Aboriginal or Treaty Rights. At this point the Minister can approve the Project as planned, allow it to proceed subject to conditions, require the proponent to take further steps including further study or consultation, or choose to terminate the TPAP if they feel the EPR does not address these effects.

6.3.8 Summary of Key Comments and Responses

Table 6-7 provides a high level summary of key comments received during the TPAP phase of the Project. This table is intended to provide interested reviewers with a snapshot of the types of comments raised and guidance provided during the TPAP and how they were addressed by Metrolinx. A complete record of all comments and corresponding responses can be found in the RoC in Appendix B.



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Торіс	Summary of Key Comment/Concern	Response and Influence on the Project	
Groundwater and Surface Water	The Study Area is located within a WHPA and as such must meet specific requirements set-out by both the Region and TRCA.	 Metrolinx is undertaking ongoing consultation with TRCA and York Region throughout all phases of the Project to ensure that requirements are being met including, fueling requirements and spill prevention and response. 	
	 Source Protection Policies should be considered for this Project. 	Policies under the Clean Water Act will be applied during the design phase of the Project. Ongoing coordination with York Region and TRCA throughout the design phase will allow for these policies to be addressed.	
	• How are the effects of a reduced drainage area as a result of implementation of this Project be mitigated, including loss of channel length and anticipated effects?	• Though the project will reduce the drainage area and length of the existing channel, the detailed design includes measures for diverting flows to address this.	
Air Quality	How will local air quality be affected if contaminated soils are encountered?	• During construction, the Contractor will be required to apply water or another dust suppressants.	
Soils	The Soils Management Plan and/or the Excess Materials Management Plan should describe project oversight and soil quality considerations.	 A Soil Management Plan will be developed in accordance with the Excess Soil – a Guide for Best Management Practices (January 2014), industry best practices and all applicable laws. 	
	• There is not enough recent information or commitments to describe the very limited soils preliminary assessment.	 As the project progresses through detailed design and towards implementation, additional site investigation work will be undertaken to include the appropriate level 	

Table 6-7: Summary of Comments Received and Responses Provided During TPAP



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Торіс	Summary of Key Comment/Concern	Response and Influence on the Project		
		of detail to support design and construction activities, as required.		
Stormwater Management	Will upstream properties be effected as a result of an increase in water surface elevation?	 An analysis will be completed, and text added to the report to confirm no adverse effects on upstream properties. 		
	• Where are the locations of the proposed OGS unit, and the existing OGS units?	• The location of other existing and proposed OGS units will be shown on the SWM figures.		
Trees	• To replace the lost trees, it is encouraged that a native plant restoration plan be developed.	The report has been updated to include the development of a Landscape Plan.		
Traffic	What are the operational impacts due to the loss of the entire west parking lot?	• The removal of the west parking lot is not anticipated to have any impacts related to capacity as a result of the proposed Project.		

6.4 FUTURE CONSULTATION REQUIREMENTS

Metrolinx has committed to ensuring that consultation with project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities will continue beyond the TPAP process for the Project.

Following the completion of the TPAP study, further studies or consultation may be required, resulting in a refinement of the results presented in this EPR. If refinements lead to changes to the Project that are inconsistent with the EPR, such as a new station location, these will be documented in an addendum to the EPR. Significant changes to the EPR will be accompanied by a notification of the change to the project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities, as required in the regulation.

6.4.1 Public Consultation

Metrolinx is committed to continuing to consult and communicate with stakeholders and other interested parties beyond the TPAP. Specifically, Metrolinx will:

• Design and implement a response strategy to address/resolve potential construction-related concerns.



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- Maintain the Project website throughout the detailed Design and construction phases where the public can access updated information on the Project.
- Continue discussions/consultation with project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities, as required.

6.4.2 Agency Consultation

In addition to carrying out the TPAP, there are a number of additional federal, provincial, municipal and other permit and approval processes that Metrolinx will follow (further details are outlined in Section 7.0 of this EPR). As a part of obtaining permits and approvals, Metrolinx will consult with permitting agencies, and follow associated public notification or consultation practices as applicable.

6.4.3 Consultation with Elected Officials

As a part of Metrolinx's ongoing efforts to keep the community informed throughout the design and construction of the proposed works, Metrolinx welcomes inquiries and comments from elected officials wishing to keep their electorate informed. As the Project advances, project updates will be posted to the Project website.

6.4.4 Indigenous Consultation Commitments

As a part of Metrolinx's ongoing efforts to keep the community informed throughout the design and construction of the proposed works, Metrolinx welcomes inquiries and comments from Indigenous communities wishing to keep their community members informed. As the Project advances, Project updates will be posted to the project website.



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6.4 FUTURE CONSULTATION REQUIREMENTS

Metrolinx has committed to ensuring that consultation with project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities will continue beyond the TPAP process for the Project.

Following the completion of the TPAP study, further studies or consultation may be required, resulting in a refinement of the results presented in this EPR. If refinements lead to changes to the Project that are inconsistent with the EPR, such as a new station location, these will be documented in an addendum to the EPR. Significant changes to the EPR will be accompanied by a notification of the change to the project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities, as required in the regulation.

6.4.1 Public Consultation

Metrolinx is committed to continuing to consult and communicate with stakeholders and other interested parties beyond the TPAP. Specifically, Metrolinx will:

- Design and implement a response strategy to address/resolve potential construction-related concerns.
- Maintain the Project website throughout the detailed Design and construction phases where the public can access updated information on the Project.
- Continue discussions/consultation with project stakeholders (government agencies, elected officials, members of the public) and Indigenous communities, as required.

6.4.2 Agency Consultation

In addition to carrying out the TPAP, there are a number of additional federal, provincial, municipal and other permit and approval processes that Metrolinx will follow (further details are outlined in Section 7.0 of this EPR). As a part of obtaining permits and approvals, Metrolinx will consult with permitting agencies, and follow associated public notification or consultation practices as applicable.

6.4.3 Consultation with Elected Officials

As a part of Metrolinx's ongoing efforts to keep the community informed throughout the design and construction of the proposed works, Metrolinx welcomes inquiries and comments from elected officials wishing to keep their electorate informed. As the Project advances, project updates will be posted to the Project website.



Consultation Process February 23, 2018

6.4.4 Indigenous Consultation Commitments

As a part of Metrolinx's ongoing efforts to keep the community informed throughout the design and construction of the proposed works, Metrolinx welcomes inquiries and comments from Indigenous communities wishing to keep their community members informed. As the Project advances, Project updates will be posted to the project website.



Permits and Approvals, and Commitments and Future Work February 23, 2018

7.0 PERMITS AND APPROVALS, AND COMMITMENTS AND FUTURE WORK

All applicable permits, licenses, approvals and monitoring requirements under environmental laws will be reviewed, confirmed and obtained by Metrolinx prior to the construction of the Project. An outline of key legislation and regulations that are anticipated to apply to the proposed improvements to the Lincolnville Layover and GO Station are outlined below. These will be confirmed prior to commencing construction. A detailed list of potentially applicable permits and approvals requirements that will be confirmed during detailed design is provided in Section 7.3.

7.1 CANADIAN ENVIRONMENTAL ASSESSMENT ACT 2012 (CEAA)

The Regulations Designating Physical Activities under the *Canadian Environmental Assessment Act (CEAA) 2012* identify the physical activities (i.e., types of projects) that constitute "designated projects" that may require a Federal EA. A review of the Regulations was carried out by Metrolinx within respect to the Project. Based on this review, this Project does not constitute a designated project under *CEAA, 2012*.

CEAA, 2012 also outlines requirements for determination of the likelihood of significance environmental effects for a physical activity that is carried out on federal lands, or outside of Canada, in relation to a physical work and that is not a designated project (Section 67 of *CEAA 2012*). All of the proposed work for the Project will be carried out on lands owned by Metrolinx. As such, the requirements under *CEAA, 2012* do not apply.

7.2 PERMITS AND APPROVALS

In accordance with *O. Reg. 231/08*, a Notice to Proceed will be issued by the Minister of the Environment and Climate Change if there are no outstanding issues on a matter of provincial importance that relates to the natural environment, cultural heritage/interest, or on a constitutionally protected Aboriginal or treaty right. In addition to carrying out the TPAP in accordance with *O. Reg 231/08*, there are also a number of other provincial, municipal, and other approvals/permits required for this Project prior to implementation. Accordingly, the following section summarizes the anticipated permits and approvals based on the preferred design and input received from stakeholders to date.

In addition to the commitments to future work outlined in Section 7.3, the permits and approvals required for the proposed works may identify the need for additional mitigation. Any additional mitigation measures required in connection with a permit or approval will be incorporated as appropriate into project design and implemented.



Permits and Approvals, and Commitments and Future Work February 23, 2018

7.2.1 Federal

No Federal permits or approvals are required for the Project. A DFO Self-Assessment will be completed during detailed design to determine the need for *Fisheries Act* authorizations.

7.2.2 Provincial

There are a number of Provincial permit, approval, and agreement requirements for the detailed design and construction stage of the Project. The following sections identify the Provincial requirements that are anticipated to be required for the work activities associated with the Project. Table 7-1 provides a broader list of other potentially applicable approvals, that should be confirmed as design advances.

7.2.2.1 Ministry of the Environment and Climate Change Permit to Take Water

Dewatering activities were previously governed by the Permit to Take Water (PTTW) process in compliance with O. Reg. 387/04, issued under Section 34 of the Ontario *Water Resources Act* (OWRA), 1990, for temporary water takings from the environment that exceed 50,000 litres/day. This includes water drawn from groundwater and surface water. However, in March 2016, the MOECC introduced a new water taking regulation that allows for construction related dewatering to proceed under the Environmental Activity Sector Registry (EASR) requirements if dewatering volumes are above the O. Reg 387/04 threshold (e.g., 50,000 litres/day) but below 400,000 litres/day.

The need for dewatering during construction activities will be confirmed prior to construction, as will the permitting/registration requirements. The requirements for dewatering during construction are dependent on the locations, depth and extent of excavation required for the Project. Significant dewatering is not anticipated during operations, however if excavations encounter a high water table and groundwater dewatering is required during operations, additional mitigation measures may be necessary.

7.2.2.2 Ministry of Tourism, Culture and Sport

A Stage 1 and Stage 2 AA were completed for the Project. The Stage 1 AA findings indicate the majority of the Study Area has been previously disturbed. The Stage 2 AA findings indicate that the area subjected to test pit survey was previously disturbed, and that no further archaeological investigation is required within the Study Area. The Stage 1 and 2 AA were entered into the Ontario Public Register of Archaeological Reports on September 5, 2017 and on November 1, 2017, respectively.

A CHSR was completed to identify properties in the vicinity of the Study Area that may have known or potential cultural heritage value or interest, but no properties were identified within a distance where effects would be anticipated from the Project.

No permits or approvals related to archaeological or cultural heritage resources are required.



Permits and Approvals, and Commitments and Future Work February 23, 2018

7.2.2.3 Toronto and Region Conservation Authority (TRCA)

Under the *Conservation Authorities Act*, administered by the MNRF, conservation authorities have been established to manage watersheds throughout most of southern Ontario. In 2006, the Minister of MNRF approved revisions to the "Development, Interference and Alteration" regulations for each conservation authority, which enable conservation authorities to control development through a permitting process in areas prone to water-related natural hazards, such as shorelines, river and stream valleys, floodplains, watercourses, and wetlands. The conservation authority permitting process is designed to deal with issues related to flooding, erosion, dynamic beaches, pollution and conservation of land.

Metrolinx is exempt from TRCA Regulations (e.g., *Ontario Regulation 166/06 – Toronto and Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* (O. Reg. 166/06)) and is not required to apply for or obtain permits from the TRCA. Metrolinx will engage the TRCA and adhere to the requirements of the TRCA's Voluntary Review Process with respect to works within TRCA regulated areas and to address the risk of flooding and erosion. No construction activities for this Project are proposed in the TRCA regulated areas. Metrolinx will continue to engage TRCA throughout the detailed design so that the final design addresses stakeholder concerns.

7.2.3 Municipal

There are a number of municipal permit, approval and agreement requirements to be considered for all phases of the Project. Metrolinx is exempt from municipal regulations and policies and is not subject to municipal permit and approval requirements. Although formal approval will not be sought, Metrolinx's policy is to adhere to the intent of the relevant permit and approval process to the greatest extent possible.

The study area is within the Town of Whitchurch-Stoufville, Regional Municipality of York. Metrolinx will continue to communicate and engage with the municipalities throughout detailed design and prior to construction to confirm that any municipal concerns are addressed to the greatest extent possible prior to commencement of construction activities.

Items that may require review with municipalities include, but are not limited to:

- Building permit and site plan applications
- SWM plans
- Tree removals
- Noise By-law Exemption
- Clean Water Act requirements



Permits and Approvals, and Commitments and Future Work February 23, 2018

7.2.4 Timing Windows and Preventive Measures

It is recognized that there are overlapping timing windows related to restrictions on certain construction activities, and Metrolinx will consult further with the applicable regulatory agencies to determine a suitable approach for construction scheduling. In accordance with the *Migratory Birds Convention Act*, if vegetation removal or other development activity must occur during the migratory nesting period of April 1 to -August 31, a certified avian biologist must complete a nesting survey within 24 hours of commencement of work to document the presence or absence of active nesting habitats. In addition, work that may have a downstream effect on Reesor Creek should proceed between July 1 and September 15.

7.2.5 Other

Metrolinx will address the requirements of any other applicable permits or approvals that may be identified upon completion of the TPAP as required.

7.3 SUMMARY OF PERMITS AND APPROVALS

A preliminary list of the potentially applicable permitting and approval requirements for the Project are identified in Table 7-1. Additional requirements may be identified or confirmed during detailed design, or as ongoing consultation progresses. Metrolinx will commence construction once all relevant permits/approvals have been obtained from the appropriate authorities.



Permits and Approvals, and Commitments and Future Work February 23, 2018

Table 7-1: Permitting and Approvals Requirements

Permit/Approval Name	Regulatory Authority	Legislation & Regulation	Description of Activities Covere
PROVINCIAL			
Notice to Proceed	MOECC	<i>Environmental Assessment Act</i> O. Reg 231/08 (Transit Projects & Metrolinx Undertakings)	Must be obtained before the project can proceed to implementation. The project meets the definition of a transit project under O. Reg 231/08 and is sub
Air Environmental Compliance Approval (ECA) or EASR	MOECC	Air Pollution – Local Air Quality Regulation – O. Reg 419/05 Ozone Depleting Substances and Other Halocarbons Regulations – O. Reg 463/10	Required for a facility with an operation that emits one or more contaminants into the into the air. ECA or Environmental Activity and Sector Registry (EASR) applicability
Noise Environmental Compliance Approval	MOECC	Environmental Protection Act Part II.1 O. Reg. 1/17: Registrations Under Part II.2 of the Act – Activities Requiring Assessment of Air Emissions	An ECA for the Facility may be required if equipment generating noise emissions, s Facility during detailed design.
Environmental Compliance Approval (Stormwater Management)	MOECC	<i>Ontario Water Resources Act</i> Section 53	A stormwater management plan, if required, is to provide an integrated treatment tr premised on providing control at the lot level and in conveyance followed by end-of only means of meeting the multiple criteria for water balance, water quality, erosion
Environmental Activity Sector Registry (EASR)	MOECC	O. Reg 63/16: Registrations Under Part II.2 of the Act – Water Taking	Required if temporary water takings are estimated to be greater than 50,000 L/day,
Permit to Take Water (PTTW)	MOECC	<i>Ontario Water Resources Act</i> (O. Reg 128/03) Section 34	Required if temporary water takings are estimated to be greater than 400,000 L/day activities will be confirmed during detailed design.
Notification	MOECC	Clean Water Act, 2006	A Section 59 Notice from the York Region's Risk Management office may be requir contain conditions or prohibitions of specific activities included in the development a need for a Risk Management Plan will likely be identified, which would document th the quality and/or quantity of source water for the nearby municipal wells, and desc activity from posing a significant threat to drinking water.
ESA Permit	MNRF	Endangered Species Act Section 17 O. Reg 242/08	If required, the ESA Permit protects habitat and individuals of wildlife species desig in Ontario. Prohibits damage or destruction to the habitat of the listed species. If the Applicability is determined based on finding provincially listed species at risk or their Consultation with the MNF is recommended to address suitable habitat for bobolink the Site. An Information Gathering Form has been submitted to solicit comment from authorization under the ESA 2007 is not required at this time. This will be confirmed
Stage I & II Archaeological Assessment MTCS Sign off	MTCS	Ontario Heritage Act	Review of the completed Stage 1 and 2 Archaeological Assessment is required from stating that there are no further concerns with regard to alterations to archaeological
Heritage Assessment MTCS Sign	MTCS	Ontario Heritage Act	Review of the completed Heritage Assessment is required from the MTCS.



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ject to the Transit Project Approval Process.

ne air to permit the discharge of the contaminant y to be determined based on design details.

such as a diesel generator, is proposed for the

rain approach to water management that is -pipe controls. This combination of controls is the control and water quantity.

but less than 400,000 L/day.

y; the need for dewatering during construction

red under the *Clean Water Act*. The Notice will application. As part of the Section 59 process, the ne activities at the site that are potential threats to ribes the measures required to prevent the

nated as Threatened, Endangered, or extirpated e project affects a listed species or its habitat. ir habitat within/adjacent to the project.

(protected by the ESA 2007) that is present at m the MNRF, who determined that an d prior to construction.

m the MTCS. A letter will be issued by the Ministry al sites by the proposed development.

Permits and Approvals, and Commitments and Future Work February 23, 2018

Table 7-1: Permitting and Approvals Requirements

Permit/Approval Name	Regulatory Authority	Legislation & Regulation	Description of Activities Covere
Notice of Project	Ministry of Labour	Occupational Health and Safety Act Regulation for Construction Projects - O. Reg. 213/91 Section 6(1)	The constructor must provide a Notice of Project to the Ministry of Labour prior to s the Regulation.
Notification	-	Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33	Requires that any person discovering human remains must notify the police or coro Ministry of Government and Consumer Services. Should human remains be encour site must cease and notification will be required.
TSSA Registration	TSSA		The Technical Standards and Safety Authority's (TSSA) Fuels Safety Program regulate of fuels in Ontario.
OTHER AGENCIES			
Development, Interference with Wetlands and Alterations to Shorelines and Watercourses permit	TRCA	<i>Conservation Authorities Act R.S.O.</i> 1990, C. 27, O. Reg. 166/06 <i>Crown Agency Act</i> <i>R.S.O. 1990, C. 48, s.1</i>	Related to works within the regulated flood plain and within watercourses, and sign In accordance with the <i>Crown Agency Act</i> and the <i>Conservation Authorities Act</i> , as regulatory approval process under Section 28 of the <i>Conservation Authorities Act</i> . I Voluntary Permit Review process.
MUNICIPAL			Although Metrolinx, as a Provincial Agency, is not subject to municipal permit to the intent of the relevant permits/approvals requirements to the greatest exercise wand information.
Excess Load Permit	York Region	York Region By-law No. 2010-15	This permit may be required for commercial vehicles to carry a load heavier or large <i>Act</i> . Approval is only given for roads in York Region. This could be required for the site and will be determined through detailed design.
Load Exemption Permit	York Region		This permit is for trucks whose load is heavier than the maximum posted weight of Regional roads. This could be required for the transportation of equipment or mater detailed design.
Survey and Inspection Permit	York Region		This type of permit is for Investigation and Day lighting (i.e., opening the road or bo Survey (i.e. measurements taken to locate property boundaries for various construct the condition of a Regional asset such as a bridge or culvert). Would be required for activities, as applicable.
Sewer Use Bylaw	York Region		Regulates the release of water and waste into the sanitary and storm sewer system during construction activities, if dewatering is anticipated during construction, it may Details to be determined during detailed design.
Building By-Law	Town of Whitchurch- Stouffville		Metrolinx will consult with the City and provide an opportunity to comment.
Noise By-Law	Town of Whitchurch- Stouffville		Limitations to daily and weekly timing of construction works will be implemented in a feasible.
Site Alteration By-Law	Town of Whitchurch- Stouffville		Regulates alteration to grade (topography) of a property through movement, removing grading is proposed and Metrolinx will conform with the intent and spirit of the Site design drawings to be submitted to the municipality for consultation.



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tarting projects that meet the standards set out in

oner and the Registrar of Cemeteries at the ntered during construction activities, all work on

lates the transportation, storage, handling and

-off on Stormwater Management Plan. a Crown Agency, Metrolinx is exempt from the Metrolinx will engage the TRCA through the

its and approval, Metrolinx policy is to adhere stent possible, and to submit applications for

er than the maximum limit in the *Highway Traffic* transportation of equipment or materials to the

five tonnes per axle on designated sections of rials to the site and will be determined through

ulevard to locate underground utilities), Land ction projects) and Inspection (i.e. used to check or surveys undertaken as part of detail design

ns. Although water and waste is not planned / be feasible to release it to the storm sewer.

accordance with local noise by-laws and where

al or placement of topsoil, soil or fill. Some minor Alteration By-Law by including all grading plans in

Permits and Approvals, and Commitments and Future Work February 23, 2018

Table 7-1: Permitting and Approvals Requirements

Permit/Approval Name	Regulatory Authority	Legislation & Regulation	Description of Activities Covered
Schedule Implications			
Terrestrial	Environment Canada	Migratory Birds Convention Act	If vegetation removal or other development activity must occur during the migratory avian biologist must complete a nesting survey within 24 hours of commencement c active nesting habitats. (see Section 4.1.1.4 – mitigation measures, for more details
Provincial Guidelines & Plans			
Requirements for addressing contaminants	MOECC	<i>Environmental Protection Act</i> O. Reg. 347	Contaminated soils or groundwater encountered during construction must be appropriate appropriste appropriate appropriate appropriate appropriate appr
Standards and Guidelines for Conservation of Provincial Heritage Properties	MTCS	-	Guidelines set out in this document apply to all Metrolinx properties.



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 nesting period of April 1 – August 31, a certified of work to document the presence or absence of s)

opriately characterized and disposed of.

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7.4 COMMITMENTS AND FUTURE WORK

The EPR commitments are developed to satisfy the requirements of O. Reg. 231/08. The purpose of the commitments is to facilitate the implementation of the proposed improvements to the Linconlville Layover and GO Station in accordance with the mitigation measures and monitoring activities described in the EPR and in a manner that does not result in negative impact on matters of provincial interest related to the natural environment, cultural heritage, or constitutionally protected Aboriginal or treaty rights.

Establishing EPR commitments also satisfies the requirements of the TPAP Guide. The Guide prescribes that the monitoring actions identified in the EPR respecting the mitigation measures must be carried out and reported. A summary of EPR commitments is provided in Table 7-2.

The responsible parties for implementation of EPR commitments are outlined as follows:

- Metrolinx will be responsible to oversee the Contract Administrator and Contractor to ensure compliance with the EPR;
- The Contract Administrator will be responsible for monitoring and reporting on the commitments in the EPR; and
- The Contractor will be responsible to execute the commitments in the EPR.

7.4.1 Summary of Mitigation and Monitoring Requirements

Upon completion of the TPAP, Metrolinx will finalize Detailed Design of the proposed improvements to the Layover Facility, while seeking the necessary permits and approvals. Consultation will continue through detailed design and construction where required for obtaining permits, informing interested parties of construction updates, and coordinating with municipalities and Indigenous communities (if required).

The key objectives of monitoring activities are as follows:

- 1. Confirm accuracy of predictions in EPR
- 2. Facilitate compliance with regulatory standards, approval requirements, etc.
- 3. Track the status and resolution of EA commitments and requirements
- 4. Augment EA information if needed
- 5. Evaluate the effectiveness of mitigation measures
- 6. Identify where effects/conditions do not meet regulatory requirements so that contingency measures can be taken.



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In advance of commencing construction activities, mitigation measures will be implemented as outlined in Section 4.0, and monitoring activities will continue throughout construction activities, and upon completion of construction where required. Monitoring commitments made in Section 4.0 are summarized below in Table 7-2. Final, detailed monitoring plans will be developed as part of detailed design activities.



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Table 7-2: Mitigation and Monitoring Activities by Project Phase

Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
Vegetation	Implement erosion and sediment controls	Pre-construction	Annual revegetated areas	Post construction for two years
	Avoid vegetation clearing and removal during primary nesting period	Construction	inspections	
	Minimal removal of vegetation	Construction		
	Reuse of existing native topsoil and seed banks will be preserved and reintroduced	Construction and Post construction		
	Revegetate disturbed areas	Post construction		
Migratory Birds	Avoid vegetation clearing and removal during primary nesting period	Construction	Nest sweeps and monitoring (if	Construction
	Stop work if nesting activities are observed in construction areas	Construction	applicable)	
Bird SAR – Bobolink, Eastern Meadowlark, Barn Swallow	Mitigation measures provided for migratory birds are also applicable to bird SAR.	Construction	Bobolink activities monitoring (if applicable)	Construction
Potential Turtle Wintering Area and slow-moving and ground-dwelling Wildlife	Exclusion fencing	Pre-construction and construction	Construction fencing inspections	Periodically during construction
			Visual inspections for species	Periodically during construction
Surface Water	Detailed water balance will be provided at Detail Design	Pre-construction	Construction activities monitoring	Construction



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Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
			Monitor site	Post construction
	Develop an Environmental Mitigation Pre-construction and Monitoring Plan		restoration activities	
	Implement erosion and sediment controls	Pre-construction and construction		
	Implement erosion and sediment controls	Construction		
	Time work to meet coldwater timing window.	Construction		
	Manage risks of spills	Construction		
	Complete site restoration	Post construction		
Stormwater Management (SWM) Features	Provide detailed water balance at Detail Design	Pre-construction	No monitoring activities are	Not applicable
	Implement erosion and sediment controls	Construction	required	
	Encourage on-site infiltration of stormwater	Operation		
Soil Quality	Prepare Health and Safety Plan	Pre-construction	Construction	Construction
	Prepare Soil Management Plan	Pre-construction	activities monitoring	
	All excavated materials will be stockpiled in accordance with MOECC's guidelines	Construction		
	Undertake testing of contaminated soils as required and according to applicable legislation	Construction		



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Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
	Prepare Hazardous Materials and Fuel Handling Plan	Construction and operation		
	Prepare Spill Prevention and Response Plan	Construction and operation		
	Contact MOECC's York-Durham District Office if contaminated soils are present	Construction and Operation		
	Winter maintenance activities by persons certified by Smart About Salt	Operation		
Groundwater Quality and Quantity	Confirm the need for and extent of water quality testing	Pre-construction	Hazardous Materials and Fuel Handling monitoring Environmental Mitigation and Monitoring Plan	Construction and operations
	Complete an Environmental Management Plan	Pre-construction		
	Implement sediment and erosion control measures	Pre-construction and Construction		
	Discharge dewatering, if required, to the natural environment	Construction		
	Develop Risk Management Plan.	Construction and Operation		
	Contractor certification Smart About Salt	Construction and Operation		
Significant Groundwater Recharge Area (SGRA)	Construction Best management protocols	Construction	Hazardous Materials and Fuel Handling monitoring	Construction and operation
	Refueling best management practices	Construction and operation		
	Maintain water balance	Construction and operation		



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Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
	Spill response planning and management	Construction and operation		
	Secondary containment of any temporary or permanent fuel storage	Operations		
Highly Vulnerable Aquifer (HVA)	Construction best management protocols	Construction	Hazardous Materials and Fuel Handling monitoring	Construction and operation
	Spill response planning and management	Construction and operation		
	Refueling best management practices	Construction and operation		
	Secondary containment of any temporary or permanent fuel storage	Operation		
Well Head Protection Area D (WHPA-D)	Construction best management protocols	Construction	Hazardous Materials and Fuel Handling monitoring as per Town of Whitchurch- Stouffville's Site activities, by York Region's Risk Management Department	Construction and operations
	Refueling best management practices	Construction and operation		
	Spills response planning and management	Construction and operation		
	Secondary containment of any temporary or permanent fuel storage	Operation		



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Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
Trees	Flag designated trees for preservation	Pre-construction	Tree protection fencing inspections	Construction
	Rigging cables or hardware will not be attached to the trees	Construction		
			Maintenance staff	Operations
	Tree protection Construction best practices	Construction	will monitor all trees and undertake required maintenance during first year of operation	
	No idling of construction equipment in Tree Protection Zone (TPZ)	Construction		
	Avoid vegetation clearing and removal during primary nesting period	Construction		
	Remove all felled trees, lumber and brush.	Construction		
	Landscape Plan developed in accordance with Metrolinx's Vegetation Compensation Protocol	Post construction		
Existing Site Users	Provide advanced notice of construction activities and construction staging	Pre-construction and construction	Construction activity monitoring	Construction
	Implement signage and wayfinding aides	Construction		
	The implementation Traffic controls	Construction		
	Members of the public can contact Metrolinx with any concerns	Construction and Operations		
Air Quality	Construction best management protocols including an Air Quality Management Plan	Construction	Construction activity monitoring	Construction



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Environmental Component	Mitigation Measure (or related action)	Relevant Project Phase: Mitigation	Monitoring Activity Requirements	Relevant Project Phase: Monitoring
	Reducing dust emissions with a non- chemical dust suppressant or water	Construction		
	Construction phasing	Construction		
Noise	Construction equipment will meet NPC- 300 criteria	Construction	Construction activity monitoring	Construction
	Adhere to By-Law 2015-172-RE	Construction		
	Local Noise By-Law and Protocol to identify and resolve issues associated with noise	Construction and operation		
Vehicular Traffic	Construction staging	Construction	Construction activity monitoring	Construction



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7.4.2 Environmental Mitigation and Monitoring Plan

The Environmental Mitigation and Management Plan (EMMP) will outline environmental protection measures for natural environment and socio-economic features located on or adjacent to the project site. The EMMP will include both general and site-specific environmental protection measures based on project-specific requirements, past project experience, current industry best management practices, and consistency with federal and provincial construction mitigation practices. The EMMP will:

- Outline environmental protection measures related to project activities
- Provide instructions for carrying out construction activities to minimize environmental effects
- Serve as reference information for the environmental inspection staff to support decisionmaking and provide links to more detailed information.

The EMMP will be developed based on a combination of desktop review and a review of existing field survey data to provide project-related environmental mitigation measures and follow-up commitments to be addressed during the detailed engineering design, construction and post-construction reclamation phases.

The EMMP will be developed with the goal of ensuring that construction is completed in compliance with environmental approvals, commitments and obligations. A core component of the EMMP will be engaging an Environmental Monitor, which will provide the following services in implementing the EMMP:

- Conduct a routine monitoring program to confirm that environmental protection measures are conducted as planned;
- Identify and provide direction to remediate any unexpected environmental occurrences (i.e., failure of environmental protection measures, damage to protection measures resulting from unexpected storms);
- Provide expert guidance to project staff during construction to ensure that the environment is protected according to environmental approvals, commitments and obligations;
- Confirm that any commitments or requirements developed in accordance with regulatory authorities are carried out as planned, and recommend additional protection measures, if required;
- Document environmental protection measures, deficiencies and methods to address environmental deficiencies carried out by project staff;
- Where required, act as a liaison between Metrolinx and regulatory agencies when issues arise during construction;
- Conduct additional field programs as required (i.e., fish rescue programs); and



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• Identify appropriate timing windows (e.g., in-water works, breeding bird season) and clear sites for construction where required.

The EMMP will outline how environmental monitoring staff will address deficiencies with the Contract Administrator and construction contractor so that these issues can be resolved in a timely manner to avoid negative impacts to the environment.

The EMMP will also outline procedures for construction monitoring staff to provide direction to the construction contractor for location of environmental protection measures that require site specific considerations, or "field fit". They will also identify areas that may require additional environmental protection measures not identified on the construction drawings. Any additional environmental mitigation measures will be discussed with Metrolinx staff prior to directing the contractor to install them.

7.5 EPR ADDENDUM

There are constraints at the existing GO Station that Metrolinx is working to address. As outlined in the Feasibility Study (Stantec, 2017), due to its proximity to a layover yard, the existing GO Station services are limited. In addition, there are no public washrooms, waiting rooms, and/or a station building on-site. The existing station site has limited space to accommodate the modifications required at the GO Station to:

- Meet the requirements of RER service improvements being planned along the Stouffville rail corridor
- Satisfy the policies, goals and objectives related to transit planning, including but not limited to providing transportation choices, comfort and convenience, multi-modal integration and, an attractive, well-planned region
- Continue to provide a safe and comfortable experience for GO customers

The activities associated with the existing and future layover and bus operations, including maintenance, fueling, sanding and storage, are not conducive to an enhanced, comfortable customer experience.

Based on the service upgrades required as part of the RER program, anticipated growth in ridership, and transit planning goals and objectives, the following improvements are anticipated to be required at the Lincolnville GO Station:

- Parking for 668 vehicles (with space for expansion in the future)
- Electrical vehicle parking and charging stations, and 12 accessible parking spaces
- · Passenger platforms with new canopies and new enclosed waiting areas
- Modified PPUDO for a minimum of 24 vehicles with one taxi/drop off area near the platform

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- Bus loop with four shelters and bus bays adjacent to station platform
- Cycling pathways and associated amenities
- Canopy-covered single rail platform
- New mechanical, electrical and communication services building
- Provisions for one 300 m² station building in the future

Given the upgrades required to the GO Station and the expansion of the Layover Facility, opportunities to relocate the existing station to a suitable site to achieve service objectives will be explored. Consideration of developing a new station on a separate site provides an opportunity to offer improved amenities and a more comfortable experience for GO commuters, while avoiding conflicts with storage and maintenance activities, and accommodating the anticipated ridership growth associated with Metrolinx's RER service improvement commitments.

If changes to the GO Station location or facilities are contemplated, they will be examined in further detail in an addendum to this EPR.



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