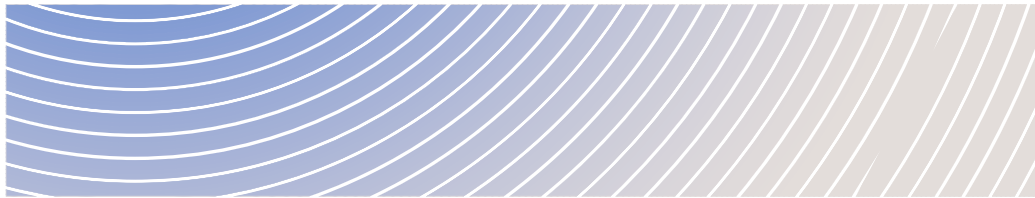


Analysis Report



WHETHER TO DESIGNATE THE **BRADFORD BYPASS
PROJECT** IN ONTARIO PURSUANT TO THE *IMPACT
ASSESSMENT ACT*

May 2021



Impact Assessment
Agency of Canada

Agence d'évaluation
d'impact du Canada

Canada



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Purpose

The Impact Assessment Agency of Canada (the Agency) prepared this report for consideration by the Minister of Environment and Climate Change (the Minister) in deciding whether to designate the Bradford Bypass Project (the Project) pursuant to section 9 of the *Impact Assessment Act* (the IAA).

Context of Request

On February 3, 2021, the Minister received a designation request from Ecojustice¹ regarding the Project. The request expressed concerns about potential adverse project-related effects on fish and fish habitat, migratory birds, species at risk, and health effects from decreased air quality. Other matters raised included effects to wildlife, vegetation, natural landscapes, greenhouse gas emissions, cumulative effects, loss of urban greenspace, provincial oversight, and consultation.

On February 11, 2021, the Agency sent a letter to the Ontario Ministry of Transportation (the Proponent), notifying it of the designation request and requesting information. In addition, the Agency requested advice and/or input from federal authorities and provincial ministries, local governments and potentially affected Indigenous groups.

The Proponent responded on March 3, 2021. The response included descriptions of the potential adverse effects, proposed mitigation measures, regulatory approvals and permits that may be required, engagement activities, and concerns expressed by the public and Indigenous groups.

Advice on applicable legislative mechanisms and potential effects due to the Project was received from the following federal departments: Environment and Climate Change Canada; Fisheries and Oceans Canada; Health Canada; Natural Resources Canada; and Transport Canada. The following provincial ministries also provided input: Environment, Conservation and Parks; Heritage, Sport, Tourism and Culture Industries; and Transportation.

The Agency received submissions from the Region of York, Town of East Gwillimbury, Town of Bradford West Gwillimbury, Simcoe County, and King Township.

The Agency received comments from Huron-Wendat Nation, Curve Lake First Nation, and Hiawatha First Nation on the Project.

¹ The request to designate the Bradford Bypass Project was received from Ecojustice on behalf of Rescue Lake Simcoe Coalition and Simcoe County Greenbelt Coalition.



Between February 3, 2021 and April 27, 2021, the Minister received over 1,500 comments from members of the public on the Bradford Bypass Project, expressing concern with the Project or requesting that the Project be designated.



Project

Project Overview

The Project includes the construction, operation and maintenance of a new 16.2-kilometre four-lane controlled access highway. As proposed, the Project (also known as the Highway 400-404 Connecting Link, the Highway 400-404 Extension Link or the Holland Marsh Highway), would connect Highway 400 in Bradford West Gwillimbury (Simcoe County) to Highway 404 in East Gwillimbury (Regional Municipality of York) and across north King Township (Figure 1). The corridor would require a new 100-metre wide right-of-way, and would cross over the Holland River and Holland River East Branch within the Holland Marsh. The project would also include the replacement of the 9th Line structure on Highway 400.

Project components and activities

The Project components include:

- 16.2 kilometres of new four-lane highway;
- infrastructure works associated with connecting the new highway to the existing segments along Highway 400 and Highway 404, municipal roads², and a segment associated with the Metrolinx railway line;
- interchanges, bridges and culverts;
- 28 water crossings; and
- stormwater management.

The main construction activities associated with the Project include:

- site preparation, including vegetation clearing and site grading;
- relocation of existing utilities;
- ground works associated with construction of roads;
- placement of bridges, culverts, and associated drainage features; and
- placement of granular and pavement materials.

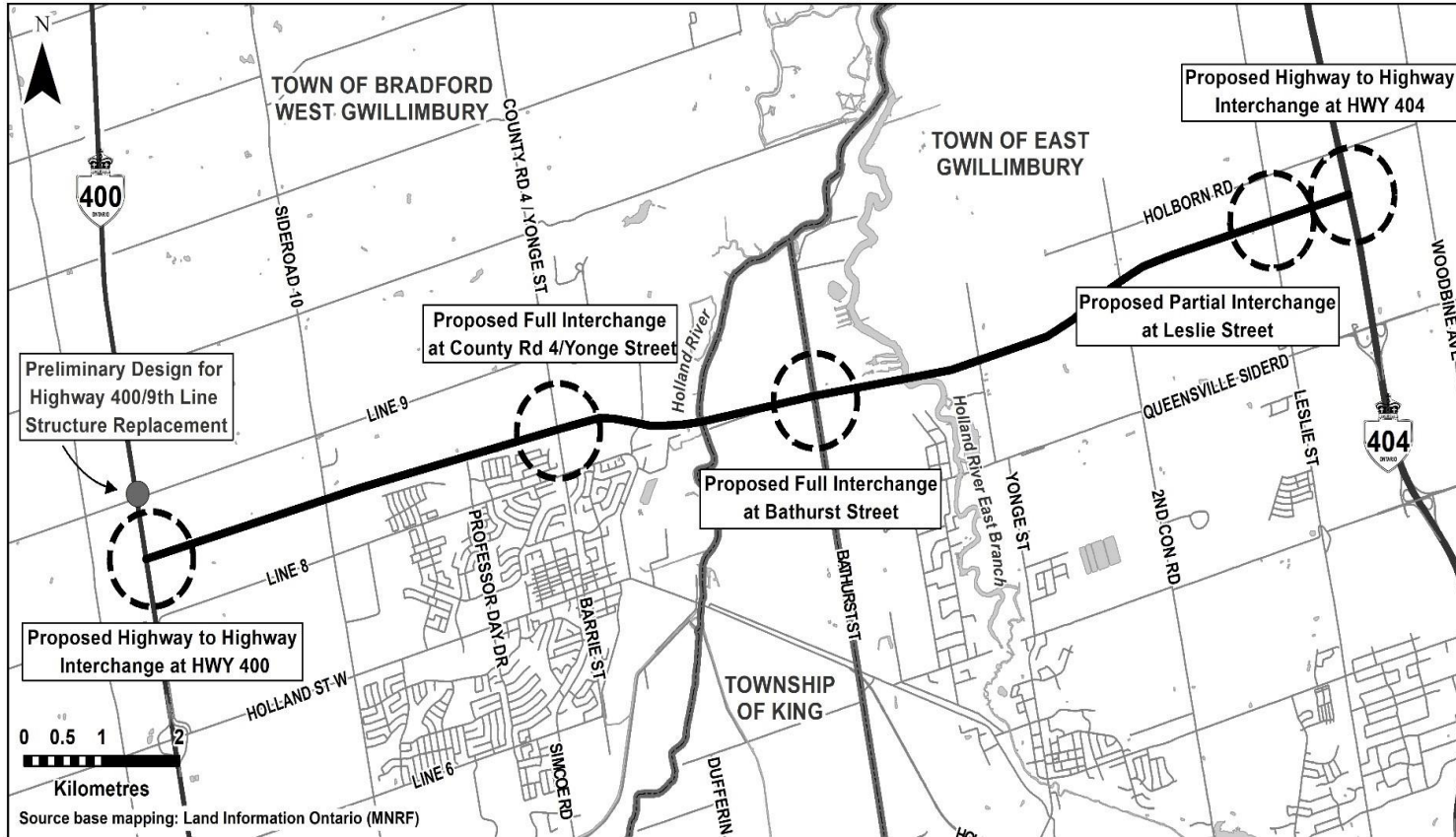
² 10th Sideroad, County Road 4, Atesian Industrial Parkway, Bathurst Street, Yonge Street, 2nd Concession, and Leslie Street.



The main activities during the operation phase would be the operation of the highway, and the maintenance of the highway and its associated infrastructure.

Project operations are anticipated in perpetuity; decommissioning and abandonment are not anticipated.

Figure 1: Project Location for Bradford Bypass Project



Source: Ontario Ministry of Transportation, March 2021



Analysis of Designation Request

Authority to designate the Project

The *Physical Activities Regulations* (the Regulations) of the IAA identify the physical activities that constitute designated projects. The Project, as described in the information provided by the Proponent, involves the construction and maintenance of new highways that would require new right of way³ of 16.2 kilometres. The Project requires less than 75 kilometres of new right of way, and as such is not described by Section 51 of the Regulations⁴.

Under subsection 9(1) of the IAA, the Minister may, by order, designate a physical activity that is not prescribed in the Regulations. The Minister may do this, if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

The carrying out of the Project has not substantially begun, and no federal authority has exercised a power or performed a duty or function that would permit the Project to be carried out, in whole or in part.⁵

Given this understanding of the Project, the Agency is of the view that the Minister may consider designating the Project pursuant to subsection 9(1) of the IAA.

³ New right-of-way is defined in the Regulations as land that is to be developed for an international electrical transmission line, a pipeline, as defined in section 2 of the *Canadian Energy Regulator Act*, a railway line or an all-season public highway, and that is not alongside and contiguous to an area of land that was developed for an electrical transmission line, oil and gas pipeline, railway line or all-season public highway.

⁴ Section 51 of the Regulations includes the construction, operation, decommissioning and abandonment of a new all-season public highway that requires a total of 75 kilometres or more of new right of way.

⁵ The Minister must not designate a physical activity if the carrying out of the physical activity has substantially begun, or a federal authority has exercised a power or performed a duty or function in relation to the physical activity (subsection 9(7) of the IAA).



Potential adverse effects within federal jurisdiction

The potential for adverse effects within federal jurisdiction, as defined in section 2 of the IAA, would be limited through project design, by application of standard mitigation measures and managed through existing legislative mechanisms. Annex I provides a summary of potential adverse effects for the Project, mitigation measures proposed by the Proponent, and anticipated legislative mechanisms that would address the effects identified.

No federal lands are expected to be affected by the Project.

Potential adverse direct or incidental effects

Direct or incidental effects refer to effects that are directly linked or necessarily incidental to a federal authority's exercise of a power or performance of a duty or function that would permit the carrying out, in whole or in part, of a project, or to a federal authority's provision of financial assistance to a person for the purpose of enabling that project to be carried out, in whole or in part.

The Project, as described, may require the exercise of the following federal powers, duties, or functions:

- authorizations under the *Fisheries Act* may be required if the construction and maintenance activities are to occur in or near fish-bearing waterbodies;
- depending on final designs, approvals for bridge works pursuant to the *Canadian Navigable Waters Act* administered by Transport Canada, may be required for works across navigable waters not listed by Transport Canada; and
- a license, certificate or permit may be required pursuant to the the *Explosives Act* issued by the Minister of Natural Resources if the Project requires working with explosives.

If federal authorizations or permits are required for the Project, the exercise of the federal powers, duties or functions mentioned above may cause direct or incidental effects on the federally-listed species at risk, which would be limited and would be addressed through the requirements set by the relevant federal authorities (Annex I).

Public concerns

Between February 3, 2021, and April 27, 2021, over 1,500 comments were received from members of the public expressing concern with the Project or requesting that the Project be designated.

The public concerns known to the Agency on the Project include:

- effects on fish and fish habitat, migratory birds, federally-listed species at risk;

- effects on wildlife and vegetation, including wetlands, woodlands, and valleylands;
- health effects: air quality, noise and vibration, and loss of urban greenspace and aesthetics;
- health and socioeconomic impacts: effects on the Greenbelt and loss of agriculture;
- cumulative effects;
- alternatives assessment; and
- Indigenous consultation and public engagement.

Some concerns relate to certain adverse effects within federal jurisdiction, including effects on fish and fish habitat, migratory birds, federally-listed aquatic species at risk, and impacts on Indigenous peoples of Canada. These concerns can be addressed through the application of standard mitigation measures and existing legislative and regulatory mechanisms (see Annex I and Annex II). Annex III provides a summary table of the public concerns not within areas of federal jurisdiction, along with relevant mechanisms that may address the concerns.

Potential adverse impacts on the rights of Indigenous peoples of Canada

The Agency, in relation to subsection 9(2) of the IAA, is of the view that while there is the potential for the Project to cause adverse impacts on the exercise of rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights), existing legislative mechanisms include consultation with potentially affected Indigenous groups and address potential impacts.

Potential adverse effects within federal jurisdiction, specifically related to impacts to physical and cultural heritage; current use of lands and resources for traditional purposes; structures, sites or things of historical, archaeological, paleontological or architectural significance, are outlined in Annex I. Potential adverse effects are expected to be considered, and resolved, through existing federal and provincial legislative mechanisms, such as the *Fisheries Act* and the *Ontario Heritage Act*.

For the analysis of the Project, the Agency considered potential impacts to, and sought comments from: Huron-Wendat Nation, Métis Nation of Ontario, Mississaugas of the Credit First Nation, and the seven Williams Treaties First Nations (Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Mississaugas of Scugog Island First Nation, Chippewas of Georgina Island First Nation, Chippewas of Rama First Nation, and Beausoleil First Nation).

The Agency received comments from Huron-Wendat Nation, Curve Lake First Nation, and Hiawatha First Nation regarding the Project.

Indigenous groups identified the following potential impacts and concerns:

- archaeological concerns from ground disturbance;
- traditional gathering (i.e., traditional medicine) and harvesting (fishing and hunting) concerns from potential project effects; and



- cumulative effects on the exercise of section 35 rights of Indigenous peoples of Canada.

The Agency is satisfied that existing legislative mechanisms identified in Annex I and III would include Indigenous consultation and address potential impacts to the exercise of rights caused by the Project.

Regional and strategic assessments

There are no regional or strategic assessments pursuant to sections 92, 93 or 95 of the IAA that are relevant to the Project.

Conclusion

The potential for adverse effects, as described in subsection 9(1) of the IAA, would be limited through project design, the application of standard mitigation measures and through existing legislative mechanisms (see Annex I and Annex II). The concerns expressed by the requester on the Project, and those that are known to the Agency are expected to be addressed through federal and provincial regulatory processes required pursuant to the *Fisheries Act*, *Explosives Act*, *Canadian Navigable Waters Act*, Ontario's *Environmental Assessment Act*, *Endangered Species Act*, *Environmental Protection Act*, *Ontario Heritage Act*, *Safe Drinking Water Act*, and *Ontario Water Resources Act* (Annex II).

To inform its analysis, the Agency sought and received input from the Proponent, relevant federal authorities and provincial ministries, local governments and potentially affected Indigenous groups. Comments received from members of the public were also considered, as appropriate. Further, the Agency considered the potential for the Project to cause adverse impacts on the exercise of rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* and is satisfied that existing legislative mechanisms would include Indigenous consultation and address potential impacts to the exercise of rights caused by the Project.



ANNEX I

Annex I: Analysis Summary Table

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<ul style="list-style-type: none"> • Works to occur at 28 water course crossings, including the Holland Marsh wetland, the Holland River, and their associated tributaries and wetlands. These works may result in death of fish and/or harmful alteration, disruption or destruction to fish habitat. • Adverse effects on water quality may occur from contaminants introduced into waterbodies through disturbance of soils, rocks and streambanks; storm water runoff; wastewater discharge; groundwater resurgence; or spills. • The Proponent plans to mitigate these effects on fish and fish habitat by performing construction activities within the applicable in-water timing windows to protect fish; implement sedimentation and erosion control measures during construction; drainage and storm water management through measures such as plantings; spill management plan; and a construction inspection and monitoring plan to ensure compliance with the applicable federal and provincial regulatory requirements. Any loss or permanent alteration of fish habitat that cannot be avoided or mitigated would be offset as part of an application for authorization under the <i>Fisheries Act</i>. 	<ul style="list-style-type: none"> • Authorization pursuant to the <i>Fisheries Act</i> paragraph 34.4(2)(b), issued by Fisheries and Oceans Canada if project activities may result in the death of fish. • Authorization pursuant to the <i>Fisheries Act</i> paragraph 35(2)(b), issued by Fisheries and Oceans Canada for harmful alteration, disruption or destruction to fish habitat that the project may cause. • Permit to Take Water, pursuant to the <i>Ontario Water Resources Act</i>, issued by Ministry of the Environment, Conservation and Parks, which would set limits for water taking to protect water levels in surrounding waterbodies. • Environmental Activity and Sector Registry (EASR) registration for construction dewatering issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. • Environmental Compliance Approval (ECA) for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. • Ontario Ministry of Transportation's Provincial Transportation Facilities Class Environmental Assessment requires the Proponent to identify potential effects and associated mitigation measures that are consistent with their requirements of the <i>Ontario Environmental Assessment Act</i>. • Lake Simcoe Protection Plan, which puts in place policies to reduce nutrients and other contaminants for protection of

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
		ecological health, pursuant to the <i>Lake Simcoe Protection Act</i> , 2008, S.O. 2008, c. 23.
A change to aquatic species, as defined in subsection 2(1) of the <i>Species at Risk Act</i>	<ul style="list-style-type: none"> No adverse effects to federally-listed aquatic species at risk are anticipated, as none of the proposed watercourse crossings occur in areas currently mapped for federally-listed aquatic species at risk. No adverse effects to marine plants are anticipated, as there is no interaction between the project and the marine environment. 	<ul style="list-style-type: none"> Fisheries and Oceans Canada advised that a permit under the <i>Species at Risk Act</i> would not be required.
A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act</i> , 1994	<ul style="list-style-type: none"> Thirteen (13) federally-listed migratory bird species at risk may be affected by the project.⁶ Individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of species of risk could occur, particularly during site preparation. Mortality from collisions with project vehicles or infrastructure could occur. Migratory birds also could be affected by sensory disturbances, such as noise, lights, and vibrations from the operation of machinery. Oil or chemical spills could have adverse effects if the spilled substances make their way into the habitats of migratory birds and species at risk. The Proponent would mitigate effects through measures such as implementing avoidance timing windows to avoid 	<ul style="list-style-type: none"> Environment and Climate Change Canada indicated that a permit under the <i>Migratory Birds Convention Act</i>, 1994 is not required. Permitting requirements under the <i>Species at Risk Act</i> for migratory bird species at risk may be applicable under a specific set of circumstances, as described in section 73 of the <i>Species at Risk Act</i>. A permit under the Ontario <i>Endangered Species Act</i> may be required to provide surveying, mitigation, compensation and monitoring requirements of certain species at risk that are provincially listed. The Proponent would have to comply with the Ontario <i>Environmental Protection Act</i> with respect to minimizing and responding to spill events.

⁶ Migratory bird species at risk potentially impacted by the Project include: Bank Swallow; Barn Swallow; Bobolink; Chimney Swift; Eastern Meadowlark; Eastern Whip-poor-will; Eastern Wood Pewee; Henslow's Sparrow; Least Bittern; Louisiana Waterthrush; Red-headed Woodpecker; Wood Thrush; and Yellow Rail.

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
	<p>effects on birds during the breeding season of April 1 to August 31; undertaking a breeding bird and nest survey if activities are proposed during the general nesting period.</p>	
<p>A change to the environment that would occur on federal lands</p>	<ul style="list-style-type: none"> The project is not anticipated to impact any federal lands. 	<ul style="list-style-type: none"> Not Applicable
<p>A change to the environment that would occur in a province other than the one in which the Project is being carried out or outside Canada</p>	<ul style="list-style-type: none"> No adverse transboundary effects in other provinces or outside Canada are anticipated. The nearest provincial and international borders are approximately 260 kilometres northeast, and 80 kilometres southeast of the project, respectively. The construction and operation of the project may result in increased greenhouse gas emissions. The Proponent indicated that it accounted for greenhouse gas emissions in selecting the preferred route for the project by following its published guidance^{Error! Bookmark not defined.}. Prior to construction, the Proponent will use the same guidance to conduct an Air Quality Impact Assessment (AQIA), in consultation with the Ministry of Environment, Conservation and Parks, which will inform the need to identify additional measures to reduce the release of greenhouse gas emissions during construction, operation and maintenance of the project. Additionally, the Proponent will conduct a detailed assessment of greenhouse gas emissions during construction and up to 20 years into operations, and if emissions exceed provincial and/or federal criteria for air quality, mitigation measures would be applied. 	<ul style="list-style-type: none"> Licences, permits and approvals required for the project pursuant to <i>Fisheries Act</i>, <i>Explosives Act</i>, <i>Canadian Navigable Waters Act</i>, <i>Ontario Endangered Species Act</i>, <i>Ontario Environmental Protection Act</i>, <i>Ontario Heritage Act</i>, <i>Ontario Safe Drinking Water Act</i>, and <i>Ontario Water Resources Act</i> would set requirements to ensure that environmental effects are mitigated. The Ministry of Transportation Class Environmental Assessment for Provincial Transportation Facilities pursuant to the <i>Ontario Environmental Assessment Act</i> would require the Proponent to avoid, prevent and mitigate effects related to greenhouse gas emissions.



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
<p>With respect to the Indigenous peoples of Canada, an impact occurring in Canada and resulting from any change to the environment on:</p> <ul style="list-style-type: none"> • physical and cultural heritage; and, • any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance. 	<ul style="list-style-type: none"> • The Proponent conducted a Stage 1 archaeological assessment, pursuant to the <i>Ontario Heritage Act</i>, in advance of the Preliminary Design Phase⁷ of the project. Huron-Wendat First Nation and Hiawatha First Nation indicated that the project could impact archaeological and burial sites. • The Proponent will be required to complete a Stage 2 archaeological assessment, pursuant to the Ontario Heritage Act, and if necessary, Stages 3 and 4. Throughout these subsequent stages, the Proponent will engage with potentially impacted Indigenous groups and provide them the opportunity to monitor findings and review archaeological reports. • Additionally, if unexpected archaeological resources are encountered (or suspected), all work would stop. The site would be protected until assessed by a licensed archaeologist. Consultation with relevant Indigenous communities would be initiated in the event that archaeological resources or human remains are discovered. 	<ul style="list-style-type: none"> • The <i>Ontario Heritage Act</i> requires the Proponent to conduct archaeological assessments in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries <i>Standards and Guidelines for Consultant Archaeologists</i> (2011), and follow protocols to protect any discovered archaeological resource. • <i>Ontario Regulation 157/10</i> requires the Proponent to follow the <i>Standards and Guidelines for Conservation of Provincial Heritage Properties</i>, prepared under section 25.2 of the <i>Ontario Heritage Act</i>, when making any decisions affecting cultural heritage resources on lands under the Proponent's control. • Ontario Ministry of Transportation's Provincial Transportation Facilities Class Environmental Assessment requires the Proponent to identify potential effects and associated mitigation measures that are consistent with their requirements of the Ontario <i>Environmental Assessment Act</i>, and includes consultation with Indigenous groups.

⁷ The Project is currently in Preliminary Design Phase, anticipated to be completed by 2023.

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
<p>With respect to the Indigenous peoples of Canada, an impact occurring in Canada and resulting from any change to the environment on the current use of lands and resources for traditional purposes</p>	<ul style="list-style-type: none"> • Potential adverse effects on fish and fish habitat, vegetation and wildlife during construction and operation could potentially impact traditional use such as hunting, fishing and harvesting. • The Proponent will consult with all potentially impacted Indigenous groups in the current and subsequent phases of the project to understand and mitigate potential impacts and consider providing capacity funding to facilitate their participation in the process. • The Proponent would implement measures to mitigate the effects on fish and fish habitat, vegetation and wildlife, in accordance with the requirements of the applicable federal and provincial authorizations, and in consultation with the potentially impacted Indigenous groups. 	<ul style="list-style-type: none"> • The Proponent has specific consultation and engagement requirements as part of the permits and authorizations potentially required for the project (see Annex II). • Ontario Ministry of Transportation's Provincial Transportation Facilities Class Environmental Assessment requires the Proponent to identify potential effects and associated mitigation measures that are consistent with their requirements of the Ontario <i>Environmental Assessment Act</i>, and includes consultation with Indigenous groups.
<p>Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada</p>	<ul style="list-style-type: none"> • No concerns of changes to health, social or economic conditions of potentially affected Indigenous groups have been raised with the Agency. • Potential changes to air quality, water quantity and quality, noise, and vibration that could trigger health, social or economic effects would be addressed via provincial and municipal mechanisms in place to protect the health of residents and visitors of Region of York and Simcoe County. 	<ul style="list-style-type: none"> • Environmental Compliance Approvals for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to Ontario <i>Environmental Protection Act</i>. • Environmental Activity and Sector Registry registration for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to Ontario <i>Environmental Protection Act</i>. • Permit to Take Water, pursuant to the <i>Ontario Water Resources Act</i>, issued by Ministry of the Environment,



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
		<p>Conservation and Parks, which would set limits for water taking to protect water levels in surrounding waterbodies.</p> <ul style="list-style-type: none"> • Environmental Activity and Sector Registry registration for construction dewatering issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. • Environmental Compliance Approval for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. • Ontario Ministry of Transportation's Provincial Transportation Facilities Class Environmental Assessment requires the Proponent to identify potential effects and associated mitigation measures that are consistent with their requirements of the <i>Ontario Environmental Assessment Act</i>, and includes consultation with Indigenous groups. • Lake Simcoe Protection Plan, which puts in place policies to reduce nutrients and other contaminants for protection of ecological health, pursuant to the <i>Lake Simcoe Protection Act, 2008, S.O. 2008, c. 23</i>. • Municipal bylaws (in Region of York and Simcoe County) pertaining to noise control.
Adverse direct or incidental effects	<ul style="list-style-type: none"> • Authorizations issued under the <i>Fisheries Act</i> would include conditions requiring avoidance, as well as mitigation, offsetting, contingency and monitoring measures. • Review and approval process under the <i>Canadian Navigable Waters Act</i> would include conditions to prevent severe impacts to navigation. 	<ul style="list-style-type: none"> • <i>Fisheries Act</i> authorizations, issued under paragraphs 34.4(2)(b) and 35(2)(b). • <i>Canadian Navigable Waters Act</i> approval. • License, certificate or permit under the <i>Explosives Act</i>. • A permit under the <i>Ontario Endangered Species Act</i> may be required for provincially-listed endangered or threatened species at risk.



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Legislative Mechanisms Relevant to the Project
	<ul style="list-style-type: none">• Review and approval process under the <i>Explosives Act</i> would include conditions for the safe and secure handling of explosives.• If federal authorizations or permits are required for the Project, the exercise of federal powers, duties, or functions mentioned above may result in adverse direct or incidental effects on federally-listed species at risk.• The direct or incidental effects would be limited or addressed through the relevant federal regulatory requirements.	<ul style="list-style-type: none">• Where there are gaps in protection of federally-listed, wildlife species on lands that are not federal lands, a Governor in Council order pursuant to sections 34 of the <i>Species at Risk Act</i>, and/or an Emergency Order pursuant to section 80 of the <i>Species at Risk Act</i> could be considered.
Public concerns related to the above effects (see Annex III for public concerns unrelated to the above effects).	<ul style="list-style-type: none">• Effects on fish and fish habitat, migratory birds, federally-listed species at risk, and impacts on Indigenous peoples of Canada, and direct or incidental adverse effects, along with proposed mitigation measures are summarized above.	<ul style="list-style-type: none">• Relevant legislative mechanisms for effects on fish and fish habitat, migratory birds, federally-listed species at risk, impacts on Indigenous peoples of Canada, federal lands, and direct or incidental adverse effects are summarized above.



ANNEX II

Annex II: Potential Federal and Provincial Authorizations

Authorization	Description
<p>Approval for bridge works, as defined under the Major Works Order for works across navigable waters not listed by Transport Canada, pursuant to the <i>Canadian Navigable Waters Act</i>.</p>	<ul style="list-style-type: none"> • For navigable waterways not listed, proponents are required to issue a public notice and provide information about proposed works (except for minor works) on all navigable waters. • The Proponent will either submit a voluntary application or undertake the public resolution process. • The approval requires that water levels or water flow is maintained for navigation purposes in navigable water. • This approval requires Indigenous and public consultation.
<p>Authorization issued by Fisheries and Oceans Canada, pursuant to paragraph 34.4(2)(b) of the <i>Fisheries Act</i>.</p>	<ul style="list-style-type: none"> • A Fisheries Act paragraph 34.4(2)(b) authorization includes requirements to assess, mitigate, offset (as required) and monitor effects arising from carrying out a work, undertaking or activity that results in the death of fish.
<p>Authorization, issued by Fisheries and Oceans Canada, pursuant to 35(2)(b) of the <i>Fisheries Act</i>.</p>	<ul style="list-style-type: none"> • A <i>Fisheries Act</i> paragraph 35(2)(b) authorization includes requirements to assess, mitigate, offset (as required) and monitor effects arising from carrying out a work, undertaking or activity that results in harmful alteration, disruption or destruction of fish habitat. • This authorization requires Indigenous consultation.
<p>License, certificate or permit issued by Natural Resources Canada pursuant to the <i>Explosives Act</i></p>	<ul style="list-style-type: none"> • The <i>Explosives Act</i> requires the proponents working with explosives to have a license, certificate, or permit issued by the Minister of Natural Resources.
<p>Authorization issued by the Ministry of the Environment, Conservation and Parks, pursuant to <i>Ontario Endangered Species Act</i>.⁸</p>	<ul style="list-style-type: none"> • An <i>Endangered Species Act</i> permit or authorization includes requirements to protect endangered or threatened species at risk or their habitats during project activities.

⁸ An authorization may be required under the Ontario *Endangered Species Act* for the Project for the following federally-listed, species at risk: Bank Swallow; Barn Swallow; Blanding’s Turtle; Bobolink; Butternut; Chimney Swift; Eastern Meadowlark; Eastern Whip-poor-will; Henslow’s Sparrow; Jefferson Salamander, Least Bittern; Louisiana Waterthrush; Little Brown Myotis, Northern Myotis; and Tri-colored Bat.

Authorization	Description
Governor in Council order, pursuant to sections 34 and/or 61 of the <i>Species at Risk Act</i> .	<ul style="list-style-type: none"> Pursuant to sections 34 and/or 61 of the <i>Species at Risk Act</i>, the Governor in Council may, on the recommendation of the Minister, by order specify the protection of individuals and residences and/or critical habitat of a federally-listed, terrestrial wildlife species that is on non-federal land. If a Governor in Council order were to be put in place, a <i>Species at Risk Act</i> permit may be required.
Emergency order, pursuant to section 80 of the <i>Species at Risk Act</i> .	<ul style="list-style-type: none"> Pursuant to section 80 of the <i>Species at Risk Act</i>, the Governor in Council may, on the recommendation of the competent minister, make an emergency order to provide for the protection of a listed wildlife species. The competent minister must make the recommendation if he or she is of the opinion that the species faces imminent threats to its survival or recovery. If a Governor in Council emergency order were to be put in place, a <i>Species at Risk Act</i> permit may be required.
Environmental Compliance Approvals (ECAs) for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the Ontario <i>Environmental Protection Act</i> .	<ul style="list-style-type: none"> These ECAs include requirements to assess, mitigate and monitor potential adverse effects on local air quality and noise levels due to project activities. These approvals require Indigenous and public consultation.
Environmental Activity and Sector Registry (EASR) registrations for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the Ontario <i>Environmental Protection Act</i> .	<ul style="list-style-type: none"> These EASR registrations require predictive modelling to demonstrate compliance with air quality, noise and vibration criteria. The approval includes requirements for fugitive dust control, monitoring, testing and reporting and equipment operations.
Drinking Water Works Permit, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the Ontario <i>Safe Drinking Water Act</i> .	<ul style="list-style-type: none"> The permit includes requirements to monitor and record indicators of water quality and environmental effects and

The following wildlife species potentially impacted by the Project are listed as Special Concern on Schedule 1 of *Species at Risk Act* and, therefore, are not subject to its prohibitions: Eastern Milksnake; Eastern Wood Pewee; Snapping Turtle; Yellow Rail.

The following wildlife species potentially impacted by the Project are not listed on Schedule 1 of *Species at Risk Act* and, therefore, are not subject to its prohibitions: Black Tern.



Authorization	Description
	provision for contingencies to prevent and deal with accidental spills or upsets.
Authorization required for removal, demolition or transfer of heritage resources that may be impacted, issued by the Ministry of Heritage, Sport, Tourism and Culture Industries, pursuant to the <i>Ontario Heritage Act</i> .	<ul style="list-style-type: none">• The Ministry of Heritage, Sport, Tourism and Culture Industries or prescribed public body requesting consent is responsible for the public and/or Indigenous consultation and shall include that information in the consent request.• The Minister's consent for removal, demolition or transfer of heritage resources may include conditions.
Environmental Compliance Approval (ECA) for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i> .	<ul style="list-style-type: none">• This ECA includes conditions to protect water quality from stormwater and sewage discharge.• This approval requires Indigenous and public consultation.
Permit to Take Water issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i> .	<ul style="list-style-type: none">• The Permit to Take Water includes requirements to assess effects to surface and groundwater quantity and quality due to project activities.• The permit places limits on the quantity and duration of water taking and requires reporting. Additional conditions could include monitoring requirements, seasonal restrictions, modifications to discharge locations, and remediation.• The permit requires Indigenous and public consultation.
Environmental Activity and Sector Registry (EASR) registrations for construction dewatering issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i> .	<ul style="list-style-type: none">• These EASR registrations require a water taking plan, discharge plan and notification.• The approval requires implementation of control measures and a water monitoring program, outlined in the water taking and discharge plans.
On-site and Excess Soil Management Permits issued by the Ministry of the Environment, Conservation and Parks under <i>Ontario Regulation 406/19</i> , pursuant to the <i>Ontario Environmental Protection Act</i> .	<ul style="list-style-type: none">• The permit includes requirements for managing the volume, quality and condition of soils that are produced during project works.



Authorization	Description
Ministry of Transportation Class Environmental Assessment for Provincial Transportation Facilities	<ul style="list-style-type: none">• The Class Environmental Assessment⁹ includes an assessment of alternatives, existing environmental conditions, potential environmental effects, and mitigation measures in consultation with Indigenous communities, public stakeholders, municipalities and government agencies.• The assessment requires Indigenous and public consultation.• The Ministry of Environment, Conservation and Parks has proposed to exempt the Bradford Bypass Project from the requirements of a Class Environmental Assessment¹⁰. If exempted, the Proponent would still be required to: prepare and submit an Indigenous Consultation Plan to the Ministry of Environment, Conservation and Parks; establish an Issues Resolution process to resolve any concerns raised by government agencies, Indigenous communities and interested members of the public; follow all other relevant legislation, standards, and practices, and document all environmental investigations, assessment of effects, proposed mitigation, and consultation.

⁹ The Proponent completed an Individual Environmental Assessment pursuant to the Ontario *Environmental Assessment Act* for the project in 1997 and received Notice of Approval with conditions in 2002. Condition 4 of the Notice of Approval included a requirement for the Proponent to conduct a Ministry of Transportation Class Environmental Assessment for Provincial Transportation Facilities. More details can be found in this link: <https://www.ontario.ca/page/approval-highway-400-highway-404-extension-link-bradford-bypass-environmental-assessment>

¹⁰ At the time of drafting this report, a decision on this proposed exemption by the Ontario Minister of the Environment, Conservation and Parks was not made.



ANNEX III



Annex III: Public Concerns Known to the Agency

Concern Expressed	Relevant Mechanisms to Address Concern
<p>Potential health and socio-economic impacts from:</p> <ul style="list-style-type: none"> • effects on the greenspace and aesthetics; • planned and existing municipal infrastructure; and, • transportation networks, and private property 	<p>The Proponent's site plan will undergo review and approval by relevant municipalities¹¹ to incorporate feedback on the project design, site access and servicing (including connection with existing or proposed public transit and active transportation plans), landscaping and aesthetics.</p> <p>The Proponent will develop a preliminary landscape plan for the Project based on consultation with local municipalities and regulatory agencies, which will address concerns related to effects on natural landscape due to the Project. The design will provide preliminary landscaping mitigation, compensation or enhancement measures within the project area.</p> <p>The Proponent will work with the Region of York and Simcoe County to discuss avoidance and mitigation of potential tree removal, and will apply for Good Forest Practices Permits and/or special permits issued by regional municipalities, as needed.</p> <p>Should land use planning issues arise, the Local Planning Appeal Tribunal resolves disputes related to land use planning matters under Ontario's <i>Planning Act</i> and can provide a forum to resolve these issues.</p> <p>Should demolition of structures be required, demolition permits may be required from the Township of King, Town of East Gwillimbury, Town of Bradford West Gwillimbury, Town of Newmarket, Region of York, and Simcoe County.</p> <p>The Project is following the Ministry of Transportation's Class Environmental Assessment process, which includes conducting environmental studies in accordance with the commitments made in the approved Environmental Assessment⁹, and taking into account the <i>Ontario Greenbelt Plan (2017)</i>^{Error! Bookmark not defined.}, <i>Lake Simcoe Protection Act</i>¹², and other relevant federal and provincial regulatory requirements described in Annex II.</p>

¹¹ Township of King, Towns of Bradford East Gwillimbury and Bradford West Gwillimbury.

¹² <https://www.ontario.ca/laws/statute/08l23>

Concern Expressed	Relevant Mechanisms to Address Concern
<p>Potential health and socio-economic impacts from effects on the Greenbelt, including the Holland marsh, and loss of agricultural land</p>	<p>The Project is following the planning process under Ministry of Transportation's Class Environmental Assessment, which includes conducting environmental studies in accordance with the commitments made in the approved Environmental Assessment⁹, and taking into account the <i>Greater Golden Horseshoe (2020)</i>^{Error! Bookmark not defined.}, <i>Ontario Greenbelt Plan (2017)</i>^{Error! Bookmark not defined.}, <i>Ontario Provincial Policy Statement (2020)</i>^{Error! Bookmark not defined.}, and <i>Lake Simcoe Protection Act</i>¹².</p> <p>An Agricultural Impact Assessment (AIA) will be conducted in accordance with the approved Environmental Assessment⁹ and guidance^{Error! Bookmark not defined.} provided by the Ontario Ministry of Agriculture, Food and Rural Affairs.</p> <p>The Proponent will conduct a property-focused assessment of effects from the Project, which will include effects on access, use of the retained lands (particularly from an agricultural perspective), and propose mitigation measures to minimize the anticipated effects.</p>
<p>Potential impacts to human health, particularly from changes in socio-economic conditions</p>	<p>The Proponent will develop a Human Health Impact Scoping Report, which will inform the need for a broader project-level Human Health Impact Assessment, including an assessment of socio-economic conditions.</p>
<p>Potential impacts to human health during project construction and operation, particularly from changes in:</p> <ul style="list-style-type: none"> • air quality; and • noise and vibration levels 	<p>The Proponent would require Environmental Compliance Approvals (ECAs) for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to Ontario's <i>Environmental Protection Act</i>. These ECAs include requirements to assess, mitigate and monitor potential adverse effects on local air quality.</p> <p>The Proponent would require Environmental Activity and Sector Registry (EASR) registrations for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to <i>Ontario Environmental Protection Act</i>. These EASR registrations require predictive modelling to demonstrate compliance with air quality, noise and vibration criteria, and include requirements for fugitive dust control, monitoring, testing and reporting, and equipment operations.</p> <p>The Proponent will conduct an Air Quality Impact Assessment (AQIA) in accordance with the Ministry of Transportation's <i>Environmental Guide for Assessing and Mitigating Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects (May 2020)</i>. The AQIA will predict the cumulative concentration of various contaminants of concern in comparison with the Provincial Ambient Air Quality Criteria and the Canadian Ambient Air Quality Standards. Should a Human Health Risk Assessment (HHRA) or Screening-level Human Health Risk Assessment (SLHHRA) be required, the findings from the air quality assessment would be used to assess, mitigate and monitor potential adverse effects on human health from changes to air quality.</p>



Concern Expressed	Relevant Mechanisms to Address Concern
	<p>The Proponent will conduct a noise impact assessment in accordance with the Ministry of Transportation’s <i>Environmental Guide for Noise</i> (October 2006). As part of the noise assessment, the Proponent will assess and mitigate potential adverse effects on human health from noise.</p>
<p>Potential health and socio-economic impacts from effects on Lake Simcoe</p>	<p>The Project is located south of Lake Simcoe, and in the Proponent’s view, will not affect Lake Simcoe directly. The Proponent will assess effects on water quantity and quality taking into account the <i>Lake Simcoe Protection Act</i> and the <i>Lake Simcoe Protection Plan</i>, and propose measures to minimize any adverse effects from the Project.</p>
<p>Potential impacts from loss of built heritage resources and cultural heritage landscapes</p>	<p>The Ministry of Heritage, Sport, Tourism and Culture Industries has an interest in the conservation of Ontario’s cultural heritage, and administers the <i>Ontario Heritage Act</i>. Their permission is required prior to the demolition or removal of any buildings or structures on a heritage property of provincial significance, or transfer of the property out of provincial control. Furthermore, the Proponent is required to follow the <i>Standards and Guidelines for Conservation of Provincial Heritage Properties</i>, prepared under the <i>Ontario Heritage Act</i>.</p> <p>The Proponent indicated that it completed a Cultural Heritage Assessment Report in 2020 according to the requirements of the <i>Ontario Heritage Act</i>. The results of this assessment will be used to inform the next steps for determining any potential effects to physical and cultural heritage.</p> <p>Should demolition of structures be required, demolition permits may be required from the Township of King, Town of East Gwillimbury, Town of Bradford West Gwillimbury, Town of Newmarket, Region of York, and Simcoe County.</p>
<p>Potential effects on wildlife, vegetation, and natural landscapes including wetlands, woodlands, and valleylands</p>	<p>The Proponent will work with the Region of York and Simcoe County to discuss avoidance and mitigation of potential tree removal, and will apply for Good Forest Practices Permits and/or special permits issued by regional municipalities, as needed.</p> <p>As part of the <i>Fisheries Act</i> authorization process, the Proponent may be required to provide additional data on fish and fish habitat, including wetlands that support fish habitat.</p>
<p>Potential effects to public safety from increased flood risk, and from roadside hazards</p>	<p>As part of the conditions of approval for the approved Environmental Assessment,⁹ the Proponent will develop a Stormwater Management Plan, which will manage stormwater, drainage and flood risk.</p> <p>The Project would be conducted taking into account key standards and guidelines from the Transportation Association of Canada (TAC) and the Ontario Ministry of Transportation (MTO), including: <i>Safety Standards Manual for New Rural Freeways</i>, Highway Design Office, February 2002 (MTO);</p>



Concern Expressed	Relevant Mechanisms to Address Concern
	<p><i>Geometric Design Guide for Canadian Roads (TAC); Design Supplement for TAC Geometric Design Guide (MTO); Roadside Design Manual, May 2020 (MTO); PCC Guidelines (MTO). The Project would also take into account the Accessibility for Ontarians with Disabilities Act and Ontario Regulation 413/12.</i></p>
<p>Cumulative effects to watercourses, wetlands, woodlands, and other wildlife habitat, agricultural and rural lands, and Greenbelt lands, due to urban development enabled by the Bradford Bypass Project¹³</p>	<p>As part of the Ministry of Transportation’s Class Environmental Assessment for the Project, the Proponent would consider the Ministry of the Environment, Conservation and Parks’ Code of Practice^{Error! Bookmark not defined.}, which includes providing information regarding the potential cumulative effects of the Project in combination with past, present and reasonably foreseeable future activities, and include considerations of environmental, social, health and economic effects. The cumulative effects assessment would also consider potential impacts on the exercise of rights of Indigenous peoples.</p> <p>The Proponent will also take into account the <i>Growth Plan for the Greater Golden Horseshoe (2020)</i>^{Error! Bookmark not defined.}, which informs and directs municipal land-use planning. Potential expansions of municipal settlement and employment areas are driven by conformance with this plan and restricted by provisions in the <i>Ontario Greenbelt Plan (2017)</i>^{Error! Bookmark not defined.} and <i>Ontario Provincial Policy Statement (2020)</i>^{Error! Bookmark not defined.}.</p>
<p>Insufficient Indigenous and public engagement</p>	<p>The Project is following the Ministry of Transportation’s Class Environmental Assessment process, which includes consultation with Indigenous groups and public with respect to potential impacts from the Project (see Annex II).</p> <p>The federal, provincial and municipal permits and authorizations required for the Project identified in Annex II will further provide opportunities for the Indigenous groups and public to provide comments with respect to the Project.</p>

¹³ Curve Lake First Nation raised concerns related to cumulative effects and indicated that the community is working with proponents of other projects that are near the proposed Bradford Bypass Project, and impacts of all projects should be considered on the ecosystem.