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The Honourable Jonathan Wilkinson
Minister of the Environment and Climate Change
House of Commons
Ottawa, Ontario K1A 0A6
Jonathan.Wilkinson@Canada.ca

Dear Minister Wilkinson,

Re: Bradford Bypass – Request for designation under s.9 of the *Impact Assessment Act*

I am writing on behalf of my clients Rescue Lake Simcoe Coalition and Simcoe County Greenbelt Coalition. This request is also supported by Environmental Defence Canada, Ontario Nature, Wilderness Committee, Ontario Rivers Alliance, Ontario Headwaters Institute, Nature League of Collingwood, Durham Region Field Naturalists, Nature Barrie, Ontario Road Ecology Group, AWARE Simcoe, Peterborough Field Naturalists, Barilla Park Residents Association, Save the Maskinonge, Lake Simcoe Watch, Windfall Ecology Centre, York Region Environmental Alliance, The North American Native Plant Society, Carden Field Naturalists, the Lake Simcoe Association, South Lake Simcoe Naturalists and High Park Nature. My clients and the other organizations named above request that the proposed Bradford Bypass Highway in Ontario, also known as the “Highway 400 to Highway 404 Extension Link” or the Holland Marsh Highway (the “project”) be designated for a federal Environmental Assessment pursuant to subsection 9(1) of the *Impact Assessment Act (IAA)*. The project will result in adverse environmental effects within federal jurisdiction as well as adverse and incidental effects and meets the criteria for public concern.

Under subsection 9(1) of 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 project has not substantially begun nor has a federal authority exercised a power or performed a duty or function that would permit the Project to be carried out, in whole or in part, and therefore the Minister is not prohibited from designating this project pursuant to subsection 9(1) of IAA.

Overview of the project

The Holland Marsh Highway is a proposed 16.2 kilometre, four-lane controlled access freeway located in Simcoe County and York Region in Ontario in the northern Greater Toronto Area, and to the south of Lake Simcoe. It requires a new 100 metre wide right of way. The project would cross the lake bed of the ancient Lake Algonquin, in an east-west direction across what is now the Holland Marsh, one of the most productive specialty crop agricultural areas in the country and one of the largest wetlands in the region. The project will lead to the removal of approximately 39 hectares of wildlife habitat and large areas of one of Ontario's most important wetlands, the Holland Marsh.¹

A highly controversial environmental assessment study under the Ontario *Environmental Assessment Act* was completed 23 years ago. It concluded that the project would cause adverse effects to fish habitat including severe stormwater and groundwater impacts. The environmental assessment did not evaluate the impacts on species at risk, migratory birds or climate change. This study has not been updated.

The provincial regulatory process is grossly inadequate

The environmental assessment is dated

The environmental assessment (EA) for the project was completed in 1997. The 1997 EA for the project was superficial in nature. It did not consider cumulative effects, climate change, or detail the impacts on natural heritage, migratory birds, fisheries, First Nations or discuss air pollution. The 1997 EA was approved by the Ontario Minister of the Environment under the Ontario *Environmental Assessment Act* in 2002. The 2002 Notice of Approval conditions required upgraded studies on archaeological resources, storm water management, groundwater protection plan, noise, and compliance monitoring.²

The environmental assessment has not been updated

Pursuant to the Ontario *Environmental Assessment Act* the EA required 5-year updates through the streamlined, self-approved, class assessment process. However, the plans for the highway were put on hold in the mid-2000s. As a result, no 5-year updates were completed.

The Province proposes to exempt the project from further assessment and evaluation

On July 8, 2020 the Ontario Government proposed to exempt the Bradford Bypass from completion of any environmental assessment updates, and to exempt the project from all existing conditions of approval including those mentioned above for stormwater management and groundwater protection. The project is proposed to be exempted from further environmental assessment studies before construction begins on early works, such as bridges and water crossings.³

¹ Bradford Bypass Environmental Assessment (1997) Appendix Document [“EA Appendices”], p.515.

² Notice of Approval – Bradford Bypass Environmental Assessment (2002) <https://www.ontario.ca/page/approval-highway-400-highway-404-extension-link-bradford-bypass-environmental-assessment>

³ Environmental Registry (019-1883) Proposal to exempt various Ministry of Transportation projects from the requirements of the Environmental Assessment Act, July 2020. <https://ero.ontario.ca/notice/019-1883>

If the exemption is approved, there would be no further legally-mandated public consultation or environmental assessment requirements under the Ontario *Environmental Assessment Act*. In the interim, a notice of study commencement was published on September 24, 2020. This study, if it proceeds and the exemption is not granted, would proceed as a self-approval class assessment and is not subject to oversight by the Ontario Ministry of the Environment, Conservation and Parks.

If the exemption is granted, there would be no provincial regulatory process addressing the impacts to federal aspects of the project such as migratory birds, species at risk, and fish habitat.

Many of the species at risk potentially impacted by the project have been exempted from approvals under the Ontario *Endangered Species Act*. The project is also exempt from conservation authority approvals for wetland and floodplain development under the *Conservation Authorities Act*. There is no regulatory requirement that climate change or air pollution would be addressed. No air pollution approvals would be required. There is no indication that the proposed provincial study, if completed, would assess climate change, noise impacts or impacts on migratory birds and fish habitat.

Other limitations of the provincial process

The usual permits for development and site alteration of wetlands and fish habitat under section 28 of the *Conservation Authorities Act* are not applicable to projects undertaken by the Ministry of Transportation Ontario (MTO). Accordingly, the usual environmental protections of that permitting process, which applies to regulated lands (typically valleys, wetlands and water crossings) is not likely to be applied to protect sensitive natural heritage features such as fish habitat and migratory bird habitat.

As noted below there is inadequate protection for species at risk affected by the project under the Ontario *Endangered Species Act*.

Public concern

There has been a great deal of public concern about water quality in Lake Simcoe and the need to urgently reduce phosphorus loadings and chloride in the watershed. The project is south of Lake Simcoe and is predominantly in the Lake Simcoe watershed. The Lake Simcoe watershed is subject to special legislation, the *Lake Simcoe Protection Act*, which puts in place policies to reduce nutrients and other contaminants. This legislation was enacted following large amounts of public concern. Recently the federal government announced it is investing \$16 million on treatment technology to reduce phosphorus to Lake Simcoe.⁴ The highway project would increase nutrient loading in Lake Simcoe by increasing the impervious area and would undermine the objectives of this nutrient reduction project.

There has also been a great deal of public concern about protecting Greenbelt lands in Northern York Region from development.⁵ The project would bisect a large area of Greenbelt and natural

⁴ “Feds to spend \$16M on Lake Simcoe water treatment facility Midland Today”, *Barrie Today* (Nov 12, 2020); “Where do local candidates stand on cleaning up Lake Simcoe?” *Barrie Today* (Oct 7, 2019).

⁵ Noor Javed, “York Region asks province for process to open up protected Greenbelt – again”, *Toronto Star* (Oct 7 2020) <https://www.thestar.com/news/gta/2020/10/06/york-region-asks-province-for-process-to-open-up-protected->

heritage lands, and would facilitate sprawl in Greenbelt natural heritage areas. York Region recently requested that the province allow development in protected Greenbelt lands along all 400 series highways.⁶

In the EA process, there was significant public opposition to the project including large public meetings and opposition from organizations formed to oppose the highway such as “forbid roads on our greenspace”. Even organizations who were generally supportive of the highway raised concerns about the lack of adequate noise and air quality studies.⁷

During the Ontario government’s growth planning exercise in the mid-2000s, the need for the project was re-assessed and the project was shelved.⁸ The province repeatedly expressed a priority for transit service, including enhanced commuter GO Train service instead.⁹ More recently, the Ontario government recommitted to the project and later indicated that it intends to move forward with the project on an expedited basis. This proposal has re-ignited public concerns.¹⁰

Predicted adverse effects on core areas of federal jurisdiction

Section 51 of the *Physical Activities Regulations* (SOR/2019-285) designates “The construction, operation, decommissioning and abandonment of a new all-season public highway that requires a total of 75 km or more of new right of way. A new right of way is described as land that “is not alongside and contiguous to an area of land that was developed for an...all season highway”. While the project is a new right of way of 16.2 km, and is therefore not at or near this threshold, at the time of the 1997 EA a number of triggers under the former *Canadian Environmental Assessment Act, 1995* were identified such as *Fisheries Act*, *Railways Act* and *Navigable Waters Protection Act*. As such the project has the potential for direct or incidental adverse effects.¹¹

While these are no longer federal environmental assessment triggers for the project under the federal *Impact Assessment Act* they are indications that the project has impacts on areas of

[greenbelt-again.html](#); Kim Zarzour, “Economy vs Environment: York Region seeking a process to develop Greenbelt lands”, *Toronto.com* (Oct 10 2020); Kim Zarzour, “Environmentalists warn of ‘terrible precedent’ as York Region council votes on Greenbelt development request”, *Yorkregion.com* (Oct 7, 2020); Gil Shochat, “How developers are trying to build on Ontario’s protected Greenbelt land”, *Global News* (Dec 14, 2016).

⁶ Report, York Region Council (October 8, 2020),

<https://yorkpublishing.escribemeetings.com/filestream.ashx?DocumentId=16293> .

⁷ EA Appendices – Appendix C: Summary of public involvement, PDF pp.238-273.

⁸ Editor “Bradford bypass wrong solution for local traffic woes”, *Bradford West Gwillimbury Topic* (Apr 2, 2008)

<https://www.simcoe.com/community-story/2038520-bradford-bypass-wrong-solution-for-local-traffic-woes/> ;

“Bradford Bypass plan shelved, but not eliminated”, *Newmarket Era* (Apr 23, 2008)

<https://www.yorkregion.com/news-story/1458921-bradford-bypass-plan-shelved-but-not-eliminated/> ;

“Environmentalists glad to see province drop plans for Bradford Bypass”, *Newmarket Era* (Apr 23, 2008); Deborah Percy, “Curtailed Bradford bypass should be applauded”, *Yorkregion.com* (Apr 11, 2008)

<https://www.yorkregion.com/opinion-story/1448122-curtailed-bradford-bypass-should-be-applauded/>.

⁹ Teresa Latchford, “Transit, not Bradford bypass, priority for province: Ontario Premier Kathleen Wynne”, *Newmarket Era* (Apr 15, 2016) <https://www.yorkregion.com/news-story/6499705-transit-not-bradford-bypass-priority-for-province-ontario-premier-kathleen-wynne/>

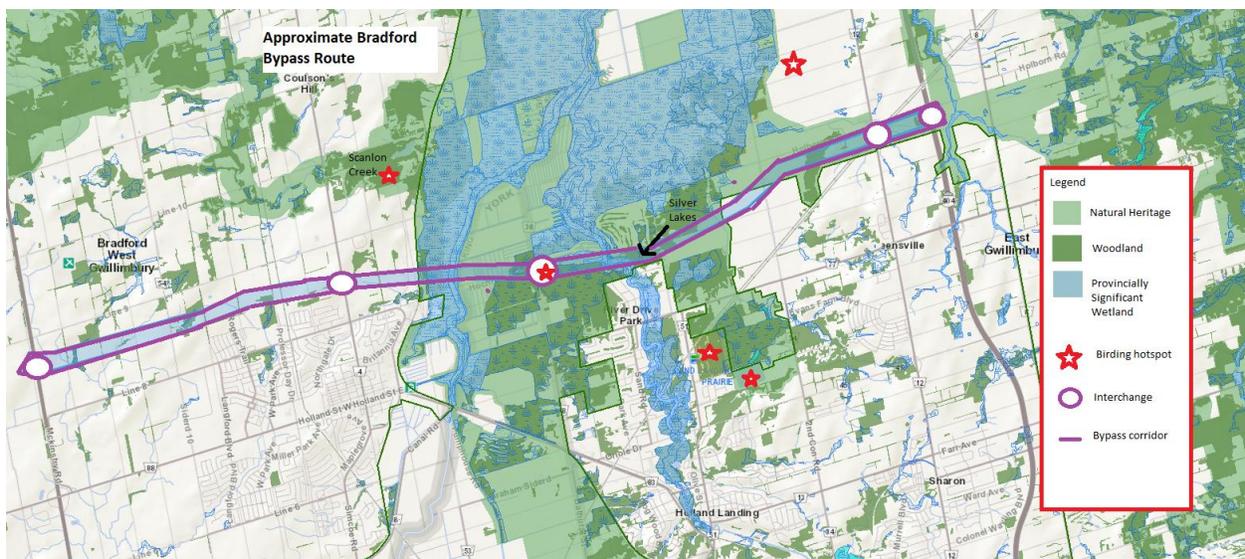
¹⁰ Letter, “Province failing Lake Simcoe, residents with Bradford Bypass” *Newmarket Today* (Dec 8, 2020) <https://www.newmarkettoday.ca/letters-to-the-editor/letter-province-failing-lake-simcoe-residents-with-bradford-bypass-3161458>

¹¹ 1997 EA p.13.

federal jurisdiction. The federal government will have to exercise duties, powers and functions in relation to the project. The project would also adversely affect federal interests in migratory birds, fish habitat and species at risk.

Habitat destruction and fragmentation concerns

The project would have severe and irreversible impacts on an extremely important natural area. The proposal would transect a large wetland, the Holland Marsh Wetland Complex that the Ministry of Natural Resources (MNR) has classified as *provincially significant*. The project would cross several streams including the east and west branches of the Holland River. According to a recent provincial EA for a project proposed directly adjacent to the project, there are at least eight significant wetlands within 5 kilometres, and at least three nearby provincially classified areas of natural and scientific interest (ANSIs) and 12 environmentally significant areas.¹² The project would remove 32.7 hectares of significant wildlife habitat. The project entails water crossings that would remove 9.5 hectares of the provincially significant Holland Marsh wetland complex including some fen wetlands. Even where the project does not directly remove habitat, the project would bisect and cut in half a significant swath of important natural areas and significant wetlands and aquatic habitat as shown in the figure below, resulting in fragmentation. It also traverses the largest remaining forested portion of the Holland Marsh, where a major intersection would be located. The 1997 EA identifies that fragmentation of habitat and disruption of natural corridors is an adverse effect.¹³ Although this concern was raised during the 1997 EA, in the subsequent 23 years the proponent has not completed a technical analysis of the need for provision of adequate wildlife crossings.¹⁴



In its 1993 review of the project, the MNR indicated that “we do not feel that the two crossings of the Holland River on the west side of the study area could be done without significant loss of

¹² Upper York Sewage Solutions (December 2013)

<http://www.uysolutions.ca/en/onlineresources/resources/AssessmentoftheProposedWRCDischargeonAquaticHabitatintheEastHollandRiver.pdf>

¹³ 1997 EA, p.8.

¹⁴ Ministry of Environment and Climate Change Review of Bradford Bypass EA, [“Ministry Review”] p.63.

wetland values regardless of the construction techniques used.”¹⁵ The MNR indicated that the wetland traversed “is the most significant wetland in [Southern] Ontario, and is about to be designated one of the key wetlands in eastern North America.”¹⁶

Fish and Fish Habitat

As noted above the project requires several federal approvals including for the harmful alteration, disruption or destruction of fish habitat under the federal *Fisheries Act*. The project will require the crossing of 13 watercourses along the length of the highway. There are two major river crossings, the east and west branches of the Holland River.¹⁷ Long span bridges would be used for the Holland River crossings and culverts for the other 11 crossings.¹⁸ The 1997 EA acknowledged the potential for loss of fish spawning habitat, including Northern Pike spawning habitat.¹⁹ The 1997 EA also predicts that “stormwater runoff has the potential to severely impact the quality/quantity of surface water and groundwater.”²⁰ The EA notes that there is the potential for sedimentation to harm terrestrial and aquatic resources.²¹ The project would dramatically increase the total impervious land surface area south of Lake Simcoe, which is an important metric for predicting impacts to receiving waterbodies, particularly for impairments from phosphorus, nitrogen and chloride.²²

There is no overall assessment of the potential impacts to fish, aquatic habitat or fish populations in the 1997 EA. There is no evaluation of the effectiveness of mitigation measures and no specific measures are proposed within the EA or associated appendices. The 1997 EA contains only very limited discussion of impacts on fish and fish habitat, though it notes that key construction concerns for aquatic habitat include the introduction of sediment, habitat disturbance and alteration of the stream banks and bed during structure placement.²³ The 1997 EA predicted serious stormwater and groundwater contamination, with unknown effects on fish habitat within the east and west Holland River and Lake Simcoe. The east Holland River contains a variety of fish species, with 24 native species including Bowfin, White Sucker, Black Crappie, Bluegill, Largemouth Bass, Pumpkinseed, Rock Bass, Smallmouth Bass, Blacknose Dace, Bluntnose Minnow, Common Carp, Common Shiner, Creek Chub, Fathead Minnow, Golden Shiner, Northern Redbelly Dace, Sand Shiner, Northern Pike, Brook Stickleback, Brown Bullhead, Johnny Darter, and Yellow Perch.²⁴ Portions of the Holland River near the project

¹⁵ EA Appendices, p.411, T. Smith (MNR) to Fred Leach (MTO) Oct 28, 1993.

¹⁶ EA Appendices, p.418.

¹⁷ EA Appendices, p.508.

¹⁸ EA Appendices, p.508.

¹⁹ 1997 EA, p.6.

²⁰ 1997 EA, p.177.

²¹ 1997 EA, p.177.

²² Joseph Hollis Bartlett, “Impacts of Transportation Infrastructure on Stormwater and Surface Waters in Chittenden County, Vermont, USA”, p.2-5, <https://core.ac.uk/download/pdf/51067147.pdf>.

²³ 1997 EA, p.161; EA Appendices, pp.500, 552.

²⁴ Upper York Sewage Solutions Aquatic Habitat Assessment, pp.15-16, <http://www.uysolutions.ca/en/onlineresources/resources/AssessmentoftheProposedWRCDischargeonAquaticHabitatintheEastHollandRiver.pdf>. Lake Simcoe and Region Conservation Authority, data from stations EH-35 and WH-07.

corridor are transition areas between coldwater and warmwater fish species.²⁵ The Holland River watershed is known to contain spawning habitat for Northern Pike.

The Department of Fisheries and Oceans (DFO) completed a preliminary review of the project in 1998 and concluded that the project would result in harmful alteration, disruption or destruction of fish habitat. It required that habitat compensation be employed to address no net loss requirements. However, no habitat compensation plan is contained within the 1997 EA.²⁶ In response to DFO and Lake Simcoe Region Conservation Authority concerns, the proponent MTO refused to adhere to no net loss principles, for all areas of fish habitat stating “In an undertaking of this magnitude it is not possible to commit to “no net loss” of forested land and wetlands. Compensation and regeneration opportunities for woodlands and wetland habitat on MTO surplus lands will be considered where it is feasible...”²⁷ and that “mitigation will occur where it is both warranted and feasible.”²⁸ Further, the proponent MTO withdrew earlier commitments to the Ontario Ministry of Natural Resources and Forestry (MNR) to acquire extra lands for wetland compensation.²⁹ The MTO also indicated it would not commit to 80% phosphorus removal and level 1 protection recommended for the protection of the Maskinonge River subwatershed.³⁰

In July 2020, the Province proposed to exempt the project from provincial EA requirements including the requirement in the 2002 notice of approval to assess stormwater and groundwater contamination.³¹ The proposed exemption would also permit “early works” such as bridge construction through watercourses without completing a transportation environmental study report, or a detailed design as is normally required by the provincial class EA process. Despite proposing to urgently commence bridge and watercourse construction, the proponent has not contacted the DFO to discuss requirements for fish habitat compensation or mitigation.³²

The project will dramatically increase the total impervious area to the south of Lake Simcoe by approximately 1.6 million square metres. The impervious area is known to contribute to nutrient loadings and is an important metric for predicting increased nutrients and chloride in the Lake Simcoe watershed. Minimizing impervious surfaces including pavement has been identified as a priority in Lake Simcoe protection planning.³³ The west Holland River subwatershed is already 7% impervious and imperviousness exceeding 10% begins to have impacts on water quality. Research has shown that as impervious cover increases to eight to nine percent, there is a significant decline in wetland aquatic macroinvertebrate health. The Holland Marsh wetland is a

²⁵ *Ibid*, p.23.

²⁶ Ministry Review, pp.116-118.

²⁷ Ministry Review, p.149, row M2, MTO response.

²⁸ Ministry Review, p.36, 39, 149.

²⁹ Ministry Review, p.35, 39, 66.

³⁰ Ministry Review, p.27 (PDF p.36).

³¹ Environmental Registry (019-1883) Proposal to exempt various Ministry of Transportation projects from the requirements of the *Environmental Assessment Act* <https://ero.ontario.ca/notice/019-1883>.

³² Cesar Kagame (DFO) to Charlotte Ireland (Ecojustice) November 10, 2020.

³³ C. Eimers et al, “Recent changes and patterns in the water chemistry of Lake Simcoe”, *Journal of Great Lakes Research* (December 2005); Lake Simcoe Phosphorus Reduction Strategy <https://www.ontario.ca/page/lake-simcoe-phosphorus-reduction-strategy>; Minister’s Five Year Report on Lake Simcoe. <https://www.ontario.ca/page/ministers-five-year-report-lake-simcoe-protect-and-restore-ecological-health-lake-simcoe-watershed>.

key ecosystem not just in the in the east and west Holland River subwatersheds, but also in the Lake Simcoe watershed. Therefore maintaining or improving wetland aquatic health in that wetland is critical.³⁴

As noted, the nature of the stormwater controls or chloride mitigation that would ultimately be employed by the project is not clear, nor is the implementation of no net loss policy for the wetland destruction which would occur directly from the project. Perhaps more significantly for fish habitat, there has been no assessment of the additional nutrient loading and chloride loading which would be entailed by the project and whether it will still be possible to achieve nutrient load reductions in line with the provincial *Lake Simcoe Protection Act* and Plan if the highway is constructed. These requirements are in place to protect and restore fish habitat in Lake Simcoe. Accordingly, the project would have clear and uncontested adverse effects on fish and fish habitat which would not be mitigated.

Migratory Bird Habitat

Highways cause significant adverse impacts to birds in four ways: direct mortality, indirect mortality (such as habitat loss and habitat sinks), habitat fragmentation, and disturbance.³⁵ No mitigation can remove the impacts of highways to wildlife.³⁶ The well-known direct effects of roads on birds include habitat loss and fragmentation, vehicle-caused mortality, pollution, and poisoning. Nevertheless, indirect effects may exert a greater influence on bird populations. These effects include noise, artificial light, barriers to movement, and edges associated with roads. Moreover, indirect and direct effects may act synergistically to cause decreases in population density and species richness. Of the many effects of roads, it appears that road mortality and traffic noise may have the most substantial effects on birds relative to other effects and taxonomic groups.³⁷

The section of the proposed highway crossing the Holland River is described as “a major wildlife habitat area” including a forested block with integrity containing “numerous woodland raptors” including Red-shouldered Hawk, Broadwinged Hawk, Sharp-shinned Hawk, and Coopers Hawk.³⁸ The EA reported that “a full suite of forest interior/area sensitive bird species were recorded including Yellow-bellied Sapsucker, Winter Wren, Wood Thrush, Veery, Northern Water Thrush, Canada Warbler, Black and White Warbler, Ovenbird and Scarlet Tanager.³⁹ Numerous species of migratory birds were surveyed during the 1997 EA.⁴⁰

³⁴ West Holland River Subwatershed Plan (LSRCA, 2010), p.48

<https://www.lsrca.on.ca/Shared%20Documents/reports/west-holland-subwatershed-plan.pdf>.

³⁵ Sandra L Jacobson, Mitigation Measures for Highway-caused impacts to birds, (2002)

<https://www.fws.gov/migratorybirds/pdf/management/jacobson2005highwaymeasures.pdf>.

³⁶ *Ibid.*; also see A V Kociolek, et al, “Effects of road networks on bird populations”, *Conservation Biology* (February 2011); and see US Environmental Protection Agency, *Evaluation of Ecological Impacts From Highway Development* (April 1994), https://www.epa.gov/sites/production/files/2014-08/documents/ecological-impacts-highway-development-pg_0.pdf.

³⁷ Kociolek, et al, *Ibid.*

³⁸ EA Appendices, p.513.

³⁹ EA Appendices, p.513.

⁴⁰ EA Appendices: Wildlife Field Surveys (Ecoplans). pp.557-563.

The project would impact 15 natural heritage features including the removal of 22.1 hectares of high quality woodlands and 9.5 hectares of the Holland Marsh providing migratory bird nesting and foraging habitat, including for species at risk described below.⁴¹ The highway would cause adverse impacts including mortality, disturbance, and habitat fragmentation and loss. The 1997 EA references “unavoidable” adverse effects on vegetation in the vicinity including in the provincially significant wetlands but does not assess the potential for adverse impacts on migratory birds or the effectiveness of mitigation at reducing or managing those impacts.⁴² No beneficial management practices for protection of migratory birds have been incorporated into the project. As described below, several of these species are listed under the federal *Species at Risk Act* (SARA).

Species at Risk

The 1997 EA predicted adverse effects on two (then) vulnerable species: Louisiana Waterthrush (SARA threatened - 2015) and Red-Shouldered Hawk (no longer federally listed). Baseline surveys for endangered and threatened species both provincially and federally are grossly out of date and predate both the provincial *Endangered Species Act* and federal SARA. Despite this, the EA predicts that species of concern “may be affected” by the project. There is no assessment of the specific effects on survival or recovery of species or the effectiveness of mitigation. It is important to note that there are no publically available updated studies on wildlife impacts from any period after 1997, which predates the federal SARA. There is no requirement to update baseline surveys, as a condition of this nature was not included in the 2002 Notice of Approval under the Ontario *Environmental Assessment Act*.

The project would occur within a few kilometres of to the Holland Landing Prairie Provincial Nature Reserve. This reserve contains one of the few remaining areas of tallgrass prairie in Ontario and the entire extent of relict prairie in this area. The prairie and associated shrub thickets provide habitat for approximately five provincially and 50 regionally rare vascular plant species.⁴³ There has been no assessment of the potential impacts on the nature reserve.

Wildlife surveys were completed in the 1997 EA which found numerous species of migratory birds, reptiles and amphibians, and vascular plants. Reptile and amphibian surveys identified several species that would be impacted by the project including federally listed species such as Snapping Turtle, Northern Map Turtle, and Eastern Ribbonsnake and COSEWIC assessed species such as Midland Painted Turtle.⁴⁴ The 1997 EA describes high quality amphibian habitat in forested areas that would be impacted by the project.⁴⁵ The EA also noted that the woodland block is functionally connected to the wetlands and woodlands to the east of the river and may be viewed as one habitat area.⁴⁶ Similar comments are made in reference to other portions of the project route.⁴⁷ The EA predicts that the corridor function of the two river branches and

⁴¹ EA, p.6; EA Appendices, p.523.

⁴² 1997 EA, pp.160-168.

⁴³ Holland Landing Prairie Provincial Park Management Plan, section 2. EA Appendices, pp.527-528, 557-566, 576-591.

⁴⁴ EA Appendices, pp.527-528, 557-566, 576-591.

⁴⁵ EA Appendices, p.513; memo, p.46.

⁴⁶ EA Appendices, p.513.

⁴⁷ EA Appendices, pp.513-515; memo, pp.46-48.

associated woodlands and wetlands could be adversely affected.⁴⁸ Smaller streams were not surveyed or assessed as part of the 1997 EA.⁴⁹ The 1997 EA does not propose any mitigation measures for these species.

Vascular plants which were identified in the project area include COSEWIC assessed plants such as Black Ash as well as SARA-listed plants like Butternut trees.⁵⁰ Listed terrestrial wildlife were surveyed in the project area including Little Brown Myotis.⁵¹ The 1997 EA notes that two vulnerable species of migratory birds have nesting sites in proximity to the project but does not indicate if they are federally or provincially listed, nor does it predict what adverse effects might occur as a result.⁵²

As noted above, the project would impact Louisiana Waterthrush habitat. Louisiana Waterthrush is a migratory bird under the *Migratory Birds Convention Act* and a SARA threatened species that has a Canadian population of under 500 adults. It is a riparian obligate and an area-sensitive forest species. The most recent COSEWIC assessment indicated that habitat loss and changes in water quality and quantity due to suburban residential development may have contributed to declines observed in Southern Ontario. In particular, the COSEWIC report noted that stormwater runoff including from roads is detrimental to the Louisiana Waterthrush, including anything that negatively affects the supply of aquatic insects in Waterthrush habitat is likely to have a negative impact on breeding populations. The COSEWIC report noted that some protection was afforded provincially for Louisiana Waterthrush habitat through the natural heritage protections in the Provincial Policy Statement and the Greenbelt Plan. However, it is important to note that the Bradford Bypass Environmental Assessment pre-dates these protections and as described below these provincial plans would not protect these areas from the Bradford Bypass.⁵³

Other federal migratory bird species at risk have been cited in the project area, and identified through EA studies of nearby projects although they are not included in the 1997 EA baseline surveys. For example, Eastern Wood-pewee, Bobolink, Barn Swallows, Wood Thrush, Chimney Swift, Eastern Meadowlark, Canada Warbler, Common Nighthawk, Hooded Warbler, Least Bittern, and Red Headed Woodpecker.⁵⁴ The MNR natural heritage mapping tool indicates that SARA listed species such as Red-headed Woodpecker, Yellow Rail, Henslow's Sparrow, Bank Swallow, Least Bittern and Black Tern habitat is located along the proposed project route.⁵⁵ The 1997 EA did not assess the potential adverse impacts on these species. There are no known plans for the potential adverse effects on these species to be assessed or mitigated.

The Ontario *Endangered Species Act* does not adequately protect species at risk from the project. Under Regulation O. Reg. 242/08, the laying down of highways and activities authorized under

⁴⁸ EA Appendices, p.515.

⁴⁹ EA Appendices, p.515.

⁵⁰ EA Appendices, pp.576-591.

⁵¹ EA Appendices: Ecoplans, Mammal Records, p.564.

⁵² Bradford Bypass EA, Exhibit 5-6.

⁵³ COSEWIC Assessment and Status Report of the Louisiana Waterthrush *Parkesia Motacilla* in Canada (Threatened, 2015).

⁵⁴ Upper York Sewage Solutions, Table G1.1 Breeding Bird surveys and G2.2 BSC tables
<http://www.uysolutions.ca/en/onlineresources/resources/NaturalEnvironmentBaseline-AppCDEFG.pdf>.

⁵⁵ https://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US

the Class Environmental Assessment for Provincial Transportation Facilities are exempt from the prohibitions under sections 9 and 10 of the *Endangered Species Act* pursuant to subsection 23(1) of the Regulation. Further, subsection 23.1(1) may exempt the project from permitting requirements under the *Endangered Species Act* to the extent that it is carrying out an undertaking under the Class Environmental Assessment for Provincial Transportation Facilities. There are a variety of other regulatory exemptions which may reduce or eliminate protections for a variety of other federally listed species at risk within the project area.

Climate Change

The potential greenhouse gas emissions associated with the project may hinder the Government of Canada's ability to meet its commitments in respect of climate change, including in the context of Canada's 2030 emissions targets and forecasts.

Under the Paris Agreement, Canada committed to reducing its greenhouse gas emission by 30% below 2005 levels by 2030. This requires a reduction in emissions of 142 Mt CO₂e. Current projections rely on a reduction of transportation emissions. For example, to meet the Paris Agreement targets, Ontario must reduce transportation emissions by 26 Mt CO₂e by 2030 and by 63 Mt CO₂e by 2050.⁵⁶

Transportation emissions are the largest greenhouse gas emissions sector in Ontario and the fastest growing source of greenhouse gases in Ontario. Ontario is the second-largest greenhouse Gas emitter jurisdiction in the country.⁵⁷ From 1990 to 2017, greenhouse gas emissions from transportation grew from 44.2 Mt of CO₂e to 60.7 Mt of CO₂e. Much of this was fueled by increases in passenger transportation.⁵⁸ Transportation accounts for approximately 33% of all emissions in the GTA. Nearly 98% of all transportation emissions in Ontario were sourced to fossil fuel use in vehicles.⁵⁹

The 1997 EA of the project did not consider the potential for the project to cause significant increases in greenhouse gas emissions. The 1997 EA included no assessment whatsoever of the impacts of the project on climate change or the impacts of climate change on the project. The proposal has as its stated purpose increasing and facilitating single use passenger vehicles for long-distance commuting. The purpose of the proposed highway is to improve level of service to single occupant vehicle car commuters in the Greater Toronto Area by improving continuity between existing 400 series highways.

The 1997 EA contains no analysis of the well-established phenomenon of "induced demand" reflecting a strong relationship between increases in road capacity and vehicle kilometres travelled. The 1997 EA does not contain any analysis of the potential for increases in transportation emissions as a result of the project. If no federal EA is conducted there will be no

⁵⁶ Environmental Commissioner of Ontario, 2018 Greenhouse Gas Emissions Report, p.116 [ECO 2018] <http://docs.assets.eco.on.ca/reports/climate-change/2018/Climate-Action-in-Ontario.pdf>.

⁵⁷ ECO 2018, p.83.

⁵⁸ Natural Resources Canada, Energy Use Statistics, Transportation Sector (Ontario) GHG Emissions by Transportation Mode. <https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/showTable.cfm?type=CP§or=tran&juris=on&rn=8&page=0>.

⁵⁹ ECO 2018, p.43. <https://www.auditor.on.ca/en/content/reporttopics/envreports/env18/Climate-Action-in-Ontario.pdf>

analysis of whether this project is consistent with Canada's international climate commitments and the meeting of those commitments could be irreversibly frustrated.

Greenhouse gas emissions can be roughly estimated by multiplying additional vehicle kilometres travelled by an average emissions factor per vehicle.⁶⁰ The increase in vehicle kilometres travelled can be estimated using the “fundamental law of road congestion”.⁶¹ Vehicle kilometres travelled is known to increase “in exact proportion to” percent increase in additional lane kilometres on highways.⁶² Accordingly, building roads “elicits a large increase in vehicle kilometres travelled.”⁶³

The 1997 EA estimates that the average daily traffic would be approximately 58,000 vehicles.⁶⁴ Based on the 16.4 km length and an average vehicle emission factor of 0.25 kg/km⁶⁵ the potential greenhouse gas contribution of the project is approximately 86,797,000 kg per year of CO₂e.

Over the lifetime of the highway, this could represent a significant increase in Ontario's greenhouse gas emissions. Ontario's environmental commissioner recommended that road pricing be used as an alternative for congestion relief.⁶⁶ Understood in the context of rapidly ballooning transportation emissions in Ontario the proposal represents a long-term entrenched policy decision to continue allowing transportation emissions to increase by continuing to increase road capacity which in turn induces further demand for single occupant vehicle commuters.

Air Quality and Health

Traffic related air pollution from highways entails contamination from a variety of air pollutants including nitrogen oxides, carbon monoxide, particulate matter, sulphur dioxide and volatile organic compounds. The health effects of these pollutants include asthma, allergies and reduced lung function as well as lung cancer and heart disease. Children are more sensitive to air pollution than people in other age groups, because children breathe in more air in relation to their body weight and less developed lungs.⁶⁷ Emerging evidence links air pollution to pre-term births

⁶⁰ National Academies of Science, “Modelling on-road transport greenhouse gas emissions under various land use scenarios”, <https://trid.trb.org/view/1393792>; According to the EPA the average passenger vehicle emits approximately 0.25 kg of CO₂ per 1 km see US EPA “Greenhouse Gas Emissions from a Typical Passenger Vehicle”, <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>.

⁶¹ G. Duranton and M. Turner, University of Toronto, Department of Economics, Working paper 370 “The fundamental law of road congestion: Evidence from US cities” (September 8, 2009). <https://www.economics.utoronto.ca/workingPapers/tecipa-370.pdf>; S. Handy and M. Boarnet (Sept 30, 2014) Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions, Policy Brief, https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ EA Appendices: Travel Demand Analysis (November 1996), p.7/i.

⁶⁵ US EPA, “Greenhouse Gas Emissions from a Typical Passenger Vehicle”

<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

⁶⁶ ECO 2018, pp.128-129, <https://www.auditor.on.ca/en/content/reporttopics/envreports/env18/Climate-Action-in-Ontario.pdf>

⁶⁷ Health Canada, Road traffic an air pollution <https://www.canada.ca/en/health-canada/services/air-quality/road-traffic-air-pollution.html>; Region of Peel, Effective Interventions to Mitigate Adverse Human Health Effects from

and low birth weight,⁶⁸ cognitive impairment and other illnesses.⁶⁹ Canadian studies have documented that the induced demand and higher vehicle densities from new highways result in increased nitrogen dioxide concentrations in close proximity to new highways and on arterials and access roads in the vicinity of a new highway.⁷⁰ The 1997 EA for the project failed to include a site-specific air quality study, a health impact assessment or a regional air quality assessment. At the time of the 1997 EA, Health Canada identified concerns with the proponent's analysis on air quality and noise impacts.⁷¹ The 1997 EA did not attempt to predict particulate matter concentration impacts in or adjacent to the proposed highway.⁷² Health Canada indicated that the air quality assessment suffered “from two major limitations that bring into question the conclusions reached in the assessment.” Health Canada noted that the proponent failed to assess the impact on regional air quality. Health Canada critiqued the use of air quality objectives as predetermined to be “acceptable” where current literature indicated that mortality and hospital admissions are implicated by carbon monoxide and nitrogen oxide levels below the objectives.⁷³ The proponent did not complete dispersion modelling as part of the EA. The proponent responded to these critiques by stating that “it is not practicable for MTO air quality impact assessments for specific highway projects to address the broader long-term regional air quality issues”⁷⁴ Both the background concentrations and the air quality criteria used in the 1997 EA is over 20 years old. As such the EA does not factor in significant infrastructure changes such as the addition of the 404 highway extension into the project area. The worst case scenario predictions in the Ministry Review materials for Benzene would exceed the current Ontario ambient air quality standards.⁷⁵ There is no condition of approval for the project that requires a health impact assessment for air quality.

Lack of demonstrated need

The need for the project has not been assessed since 1989.⁷⁶ Since 1989, the projected growth in commuter traffic has not occurred due in large part to wastewater servicing constraints.

Transportation-Related Air pollution (2015) <https://www.peelregion.ca/health/library/pdf/Rapid-Review-TRAP%20Mitigation.pdf>

⁶⁸ Marie Lynn Miranda et al. “Proximity to roadways and pregnancy outcomes” *Journal of Exposure Science and Environmental Epidemiology* 23:32 (2013) <https://www.nature.com/articles/jes201278>

⁶⁹ Weiran Yuchi et al, “Road Proximity, air pollution, noise, green space and neurologic disease incidence: a population-based cohort study” *Environmental Health*, 9:18 (2020) <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-020-0565-4>.

⁷⁰ Shohel Reza Amin et al, “Understanding Air pollution from Induced Traffic during and after the Construction of a New Highway: Case Study of Highway 25 in Montreal” *Journal of Advanced Transportation* (2017) <https://www.hindawi.com/journals/jat/2017/5161308/>

⁷¹ Ministry Review, Appendix D, PDF p. 205-207 “Response to Health Canada Comments on Air Quality...” (January 8, 2001)

⁷² Ministry Review, p. 202.

⁷³ Ministry Review p.94-96.

⁷⁴ Ministry Review, p.206.

⁷⁵ Predicted worst-case ambient concentration 20 metres from the highway with a 10% heavy duty vehicle contribution was 9.3 µg/m³, compared to the current 24 hour benzene standard of 2.3 µg/m³ see Ministry Review, Table 12, p.226.

⁷⁶ Ministry of Transportation (Ontario) Highway 404/89 Overview Study (1989).

The need for the project and whether alternatives would be more suitable is no longer evident due to the fact that the 23-year-old EA is significantly out of date. Modelling conducted in 1995 indicated that the commuter demand originated in Barrie for distribution to employment areas in York Region.⁷⁷ Since 1997, a number of upgrades to the transportation network have occurred, including major upgrades to East-West travel routes between the 404 and 400 highway⁷⁸ and all-day, two way commuter GO train service from Barrie to Toronto through Northern York Region and the extension of Highway 404.⁷⁹ The EA predicted that upgrades to Highway 9 alone, which have been completed, would meet capacity until at least 2011 and probably until 2021.⁸⁰ More up-to-date projections do not show the project being required until beyond 2041.⁸¹ There is no indication that Highway 9 has reached or is reaching capacity as predicted in the EA. Regional documents suggest that other improvements to the Regional Road network are planned which might alleviate the need for the project.⁸² The York Region Transportation Master Plan indicates this is a project requiring a low level of effort and low level of resources and does not indicate any clear needs assessment was done or updated in the last 23 years.⁸³ The 1997 EA disregards the practice of “telecommuting” as a demand management option for transportation demand,⁸⁴ something which is difficult to justify as businesses increasingly allow telecommuting due to COVID-19.

First Nation Consultation

The local First Nation, Georgina Island First Nation has requested that it be consulted on the project. The project would harmfully alter or destroy a vast array of significant archaeological resources. The EA notes that the potential exists for other “undiscovered” archaeological sites along the project route.⁸⁵

Cumulative effects

The project has the potential to cause cumulative effects in relation to other projects as it would serve to service and therefore open up a large area of rural property to increased development. Specifically, York Region, where the majority of the project is situated has requested permission

⁷⁷ EA Appendices, p.386.

⁷⁸ Upgrades to Highway 9 widening it to four lanes, Mulock, Bathurst Street and Green Lane to 4 or 5 lane paved collector roads. At the time of the EA need study, Bathurst Street and Green Lane were gravel roads. See EA report p.37 noting that these road upgrades were not yet completed.

⁷⁹ 1997 EA, p.50: disregards the impact of increased GO service because it runs along a north south axis, even though it is clear that the modelling for the Bradford Bypass relies on it being used by commuter traffic ultimately heading long-distances North-South towards Toronto.

⁸⁰ 1997 EA, p.37.

⁸¹ <https://www.georgina.ca/doing-business/highway-400-404-connecting-link> 2016 York Region Transportation Master Plan, p.75 https://www.york.ca/wps/wcm/connect/yorkpublic/d7ec2651-8dc5-492e-b2a0-f76605edc122/16296_TmpFinalBigBook_NovWEB-FIX.pdf?MOD=AJPERES&CVID=mukDpNz.

⁸² 2016 York Region Transportation Master Plan, pp.75, 146: indicating potential improvements to Queensville Sideroad and Green Lane, and “significant improvements to” the Barrie GO train corridor.

⁸³ *Ibid.* p.167.

⁸⁴ 1997 EA, pp.46-47.

⁸⁵ Peterson, W, Canadian Heritage Landscapes, The Bradford Bypass and Alternatives (December 19, 2011).

to develop areas of greenbelt adjacent to 400 series highways.⁸⁶ The project is a 400 series highway and it is anticipated that once built, increased development pressure would occur all around the project corridor. The province's "A Place to Grow" plan displays how the proposed highway would expose protected Greenbelt lands particularly to the north of the project to increased development pressures.⁸⁷ These pressures particularly pertain to employment lands as set out in the province's growth plan.⁸⁸ Additionally, the province has required York Region and Simcoe County to plan for significant increases in forecasted housing and employment growth which must take place in the growth areas adjacent to the project. The 1997 EA does not assess the cumulative impacts of the development of the adjacent areas on water quality, aquatic habitat, migratory bird habitat, or species at risk. There is no provincial process which would require these cumulative effects to be assessed.

Conclusion

At the time the 1997 EA was approved, there was a further provincial EA process and a federal EA process that was required. As a result, the 1997 EA fails to assess the impacts of the project on areas of federal jurisdiction or propose adequate mitigation measures. Due to the passage of time including the enactment of the federal *Species at Risk Act* and Canada's engagement in further international agreements on climate change, the provincial EA is inadequate and needs to be updated to ensure that there are adequate protections for fish habitat, species at risk and migratory birds. Further, the project needs to be re-assessed in light of Canada's climate change commitments. Had the project proceeded in the early 2000s it would have been subject to federal EA requirements. The provincial process is inadequate and would not assess these effects or ensure they are mitigated. Accordingly, we respectfully request that you designate this project pursuant to section 9(1) of the *Impact Assessment Act*.

Sincerely,

<Original signed by>

Laura Bowman
Staff Lawyer

cc: clients, supporters

encl: <https://ln2.sync.com/dl/c5be14300/9237f1zt-nqnpq26x-xyxvtfaq-9dvsbbw>

⁸⁶ Report, York Region Council, Committee of the Whole, Item H.1.1, (October 8, 2020). <https://yorkpublishing.escribemeetings.com/Meeting.aspx?Id=3cdc1d74-9ce9-4580-b80d-d591897b9148&Agenda=Merged&lang=English&Item=21>.

⁸⁷ Ontario *A Place to Grow*, 2020, Schedule 6, https://files.ontario.ca/schedule_6_moving_goods.jpg.

⁸⁸ *Ibid*, p.85, <https://files.ontario.ca/mmah-place-to-grow-office-consolidation-en-2020-08-28.pdf>.