



REHABILITATION OF THE LONG POINT CAUSEWAY FROM LAKESHORE ROAD TO ERIE BOULEVARD, INCLUDING THE REPLACEMENT OF THE LONG POINT CAUSEWAY BRIDGE OVER BIG CREEK

Environmental Study Report Addendum –

December 2023

TABLE OF CONTENTS

1	Introduction	1
1.1	Background	1
1.2	Overview of the EA Addendum Process	2
2	Description of the Proposed Design Changes	3
2.1	Circumstances Necessitating a Change	3
2.2	Modified Roadway Design	4
3	Impacts and Mitigation Measures	5
3.1	Natural Environment	5
3.1.1	Additional Background Information	5
3.1.2	Potential Impacts and Proposed Mitigation Measures	7
3.2	Transportation and Access	7
3.3	Cultural Environment	8
3.4	Socio-Economic Environment	8
3.4.1	Property	8
3.4.2	Noise & Air Quality	8
4	Public and Stakeholder Consultation	9
5	Additional Work, Permits and Monitoring	10
5.1	Additional Work and Detailed Design Commitments	10
5.2	Permits and Approvals	10
5.3	Monitoring	10
6	Conclusion	11
APPENDIX A – POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES		A
	Potential Impacts and Proposed Mitigation	A
APPENDIX B – NOTICE OF ADDENDUM		A

LIST OF FIGURES

Figure 1	– Study area map of the long point causeway project	1
Figure 2	– The preferred design concept from the Environmental Study Report	3
Figure 3	– The revised design concept	3
Figure 4	– Example of in-road flexible speed sign.	4

LIST OF TABLES

Table 1 – Summary of Field Findings for Turtles..... 6
 Table 2 – Summary of Consultation for Proposed Design Concept..... 9
 Table 3 – Permits and Approvals 10

REVISION HISTORY

Date	Revision Description	Prepared By:	Reviewed By:	Approved By:
Nov 23, 2023	0 – Draft	Salina Chan, BES	Kimberley Arnold, BSc, MES	Arianne Cowx, P.Eng.
Dec. 21, 2023	1 – Pre-Final	Salina Chan, BES	Kimberley Arnold, BSc, MES	Arianne Cowx, P.Eng.
Dec. 22, 2023	2 – Final	Salina Chan, BES	Kimberley Arnold, BSc, MES	Arianne Cowx, P.Eng.

1 Introduction

1.1 Background

In July 2019, Norfolk County completed a Schedule C Municipal Class Environmental Assessment (MCEA, October 2000, as amended 2007, 2011 and 2015) for the Rehabilitation of the Long Point Causeway from Lakeshore Road to Erie Boulevard (as shown below in Figure 1), including the replacement of the Long Point Causeway Bridge, to address deteriorating conditions and transportation needs along the corridor. As per a Schedule C MCEA project, an Environmental Study Report (ESR) was prepared for the Long Point Causeway MCEA study to document the proposed design for the rehabilitation of Long Point Road (Highway 59) from Lakeshore Road to Erie Boulevard and the replacement of the Long Point Causeway Bridge.

FIGURE 1 - STUDY AREA MAP OF THE LONG POINT CAUSEWAY PROJECT



Following the completion of the MCEA study, the Rehabilitation of the Long Point Causeway Project (the 'Project') proceeded to detailed design and construction in two phases. Phase 1 included the detailed design and construction for the replacement of the Long Point Causeway Bridge over Big Creek, from approximately 310 m north of the bridge to 270 m south of bridge. Construction of Phase 1 was completed in December 2022.

Phase 2 includes the detailed design and reconstruction of the Long Point Causeway, from Lakeshore Road to Erie Boulevard, which is covered in this ESR Addendum. Due to the constrained causeway corridor, the environmentally sensitive nature of the project location, and the challenges in obtaining provincial and federal permits, the road cross-section that was identified as the Preferred Design Concept in the ESR was revisited. The road-cross section has been revised from the preferred design identified in the ESR to reduce impacts to the highly environmentally sensitive area and potential Species at Risk (SAR) habitat through a reduction of the footprint and grading. This ESR Addendum, based on the MCEA process as amended in 2023, documents the review of the ESR Preferred Design Concept and the proposed

revisions to the roadway design. Based on the revised roadway design, this ESR Addendum also documents the updated existing conditions, impacts and mitigation measures, and the consultation completed. Heading 3

1.2 Overview of the EA Addendum Process

The MCEA (2023) indicates that any significant modifications proposed to a project after the ESR is filed requires an addendum to be prepared by the proponent. In order to comply with the MCEA (2023), this ESR Addendum has been prepared to review the proposed changes to the Project and the potential impacts of the revised design. This ESR Addendum describes:

- the circumstances necessitating the change;
- the environmental implications of the change; and,
- what, if any, can and will be done to mitigate any negative environmental impacts.

In addition, as part of the Addendum process, filing the Addendum for a period of 30 calendar days following the issuance of the Notice of Addendum to potentially affected members of the public, review agencies, and Indigenous Nations as well as those who were notified of the original ESR, is required. This includes the public's right to request a Section 16 Order.

Section 2 describes the circumstances necessitating the change and the proposed design changes. Section 3 describes the potential impacts (natural, transportation, cultural, socio-economic, utilities) associated with the proposed modifications and the mitigation measures to eliminate, lessen or alleviate the negative impacts. Section 4 describes the consultation with government agencies, Indigenous Nations and the public. Section 5 provides the additional work to be completed including detailed design commitments, the list of permits and approvals to be obtained and monitoring commitments.

2 Description of the Proposed Design Changes

2.1 Circumstances Necessitating a Change

The modifications to the Long Point Causeway road design were made due to the environmental considerations of the Project area. The original ESR identified a preferred roadway cross-section that included the widening of the existing road platform to include two 3.5 m driving lanes, and 1.5 m paved shoulders and 1.0 m granular shoulders on both sides (Figure 2). However, widening to this cross-section results in significant wetland infilling and other environmental impacts to the highly environmentally sensitive area requiring extensive permitting processes and compensation. Therefore, a revised cross-section is proposed (Figure 3) to reduce the footprint and amount of grading and subsequent environmental impacts (discussed in Section 2.2).

FIGURE 2 – THE PREFERRED DESIGN CONCEPT FROM THE ENVIRONMENTAL STUDY REPORT

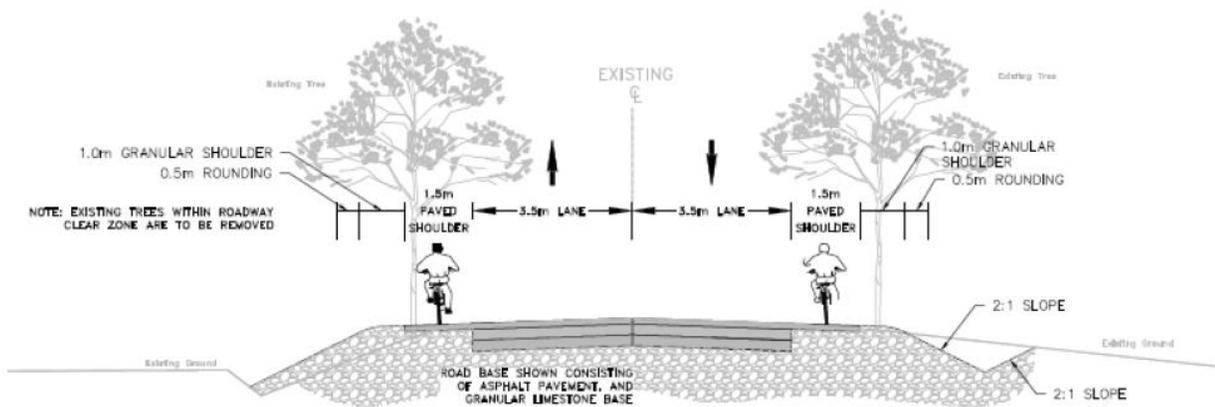
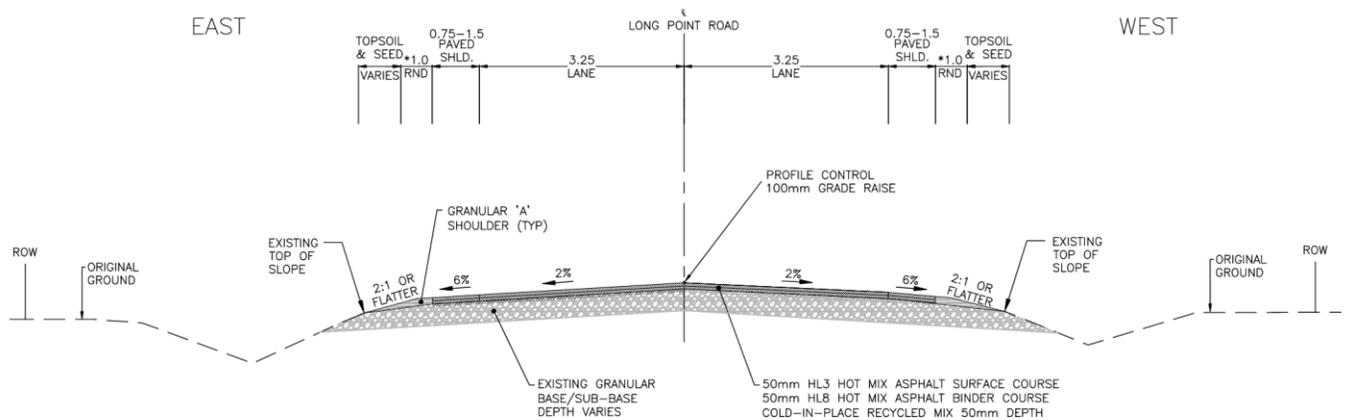


FIGURE 3 – THE REVISED DESIGN CONCEPT



2.2 Modified Roadway Design

The modified roadway design includes two 3.25 m lanes with 0.75 m (minimum) paved shoulders on both sides to minimize the amount of grading and environmental impacts which eliminate the requirement for specific regulatory permits and approvals. Where the existing road platform allows and there is sufficient space, 1.5 m paved shoulders will be implemented.

The proposed scope of work for the Project includes in-place recycling of existing asphalt including minor grading/widening to facilitate a base for shoulder paving within the existing footprint. The Project north and south limits are the same as the ESR, from Lakeshore Road to Erie Boulevard. The road reconstruction will involve cold-in-place (CIP) recycling to a depth of 50 mm. Two additional 50 mm lifts of hot mix asphalt will be placed to provide a 100 mm grade raise throughout the corridor. The CIP mix design will be determined in construction by the contractor. The final asphalt surface will be sloped at minimum 2% crossfall to shed runoff.

Proposed roadside safety and traffic calming measures include new guide rail with end treatments, posting no parking/stopping signage throughout the corridor, and placing in-road flexible speed signage along the road centreline (to be removed during winter months for winter maintenance).

FIGURE 4 – EXAMPLE OF IN-ROAD FLEXIBLE SPEED SIGN.



3 Impacts and Mitigation Measures

This section covers the potential impacts associated with the Long Point Road modified roadway design. In general, as the modified design footprint is reduced from the original ESR cross-section, there are fewer impacts compared to the design outlined in the ESR. Furthermore, additional background information was gathered, and additional site visits completed in 2023 to capture updated existing conditions and are documented in the following sections. While the overall change from the ESR results in a positive change to impacts (i.e., a reduction in impacts), a fulsome list of the mitigation measures are documented in this ESR Addendum to provide clear indication of how impacts will be addressed and managed.

For the purposes of this ESR Addendum, the Project Footprint is defined as the 4 km section of the existing roadway from Lakeshore Road to Erie Boulevard as well as the additional area impacted by modification to the road shoulders which more specifically is the area to be used by the Project. The Study Area includes the Project Footprint plus a 120 m buffer surrounding the Project Footprint.

3.1 Natural Environment

3.1.1 ADDITIONAL BACKGROUND INFORMATION

Background information for the revised Study Area was reviewed, including previous reports, wildlife atlas records (Ontario Reptile and Amphibian Atlas 2020, Ontario Breeding Bird Atlas 2007), provincial tracked species occurrences (NHIC 2023), and federal Critical Habitat mapping (Environment Canada 2017). Two site visits were conducted on May 8-9, 2023, and June 5-6, 2023, which were completed to inspect the Project Footprint and surrounding habitat to document the following:

- Presence of SAR and suitable habitat for SAR, including Critical Habitat (defined per the federal Critical Habitat mapping);
- Road mortality (focusing on reptiles to target potential SAR);
- Amphibian breeding presence;
- Reptile emergence and basking;
- Reptile nesting; and
- Breeding presence of SAR birds.

No additional fisheries investigations were completed as the revised design will avoid any in-water work and avoid work within wetland adjacent to the Project Footprint.

3.1.1.1 Amphibians

Site visits were timed to target suitable timing windows for peak amphibian breeding activity. Amphibian call surveys were conducted following the Marsh Monitoring Protocol and were conducted on June 5, 2023 between 9:00 PM and 10:30 PM.

The Project Footprint is located within the range of Fowler's Toad (*Anaxyrus fowleri*) (designated as Endangered under both the *Endangered Species Act* (ESA) and *Species at Risk Act* (SARA)). No Fowler's Toad were observed or heard during the survey. It should be noted that habitat requirements for this species were also not observed within the vicinity of the Causeway as Fowler's typically prefer sandy dunes associated with beaches. As this habitat was not observed during survey efforts, and no Fowler's Toad calls were heard, it can be confirmed that no suitable habitat, Critical Habitat, or potential presence of this SAR species is likely within the Project Footprint.

During the 2023 site visit, a large number (>30) of deceased amphibians were documented along the Causeway, due to vehicle collisions. A large number of these deceased amphibians were American Bullfrogs (*Lithobates catesbeianus*), but also included Green Frog (*Lithobates clamitans*), American Toad (*Anaxyrus americanus*), and Northern Leopard Frog (*Lithobates pipiens*).

3.1.1.2 Reptiles

Turtles

Site visits were conducted following emergence and during the peak turtle nesting season. Suitable over-wintering habitat was observed in the form of extensive permanently flooded marsh habitat on both sides of the Causeway. These permanent water conditions as well as presence of soft substrates provide suitable overwintering for all turtle species known to occur in the area.

Turtles are known to nest in loose gravel and sand substrates, which often include road shoulders. Suitable gravel shoulders are present within the Project Footprint. Snapping Turtle (*Chelydra serpentina*) and Northern Map Turtle (*Graptemys geographica*) were observed nesting within gravel substrates on site, which is indicative of the potential for use of gravel substrates throughout the Project Footprint by all turtle species known to occur within the area. Table 1 summarizes the turtles observed during 2023 site visits or known to occur in the Study Area.

TABLE 1 - SUMMARY OF FIELD FINDINGS FOR TURTLES

Common Name	Scientific Name	Protection under SARA/ESA	Habitat Presence/Site Visit Notes
Blanding's Turtle	<i>Emydoidea blandingii</i>	Endangered/ Threatened	Not observed, however Critical Habitat was identified in previous studies and confirmed in 2023. Suitable habitat includes wetland habitat (including overwintering) and nesting habitat associated with gravel shoulders.
Spiny Softshell	<i>Apalone spinifera</i>	Endangered/ Endangered	
Spotted Turtle	<i>Clemmys guttata</i>	Endangered/ Endangered	
Snapping Turtle	<i>Chelydra serpentina</i>	Special Concern/Special Concern	Four individuals observed, including one nesting on a driveway off the causeway, where the turtle was observed in suitable habitat during the appropriate nesting season. Two were deceased due to road mortality.
Northern Map Turtle	<i>Graptemys geographica</i>	Special Concern/Special Concern	Three individual observed nesting on the east side of the causeway, on the outside of the exclusion fencing. Two were deceased due to road mortality.
Midland Painted Turtle	<i>Chrysemys picta</i>	Special Concern/Special Concern	Five individuals observed, two was deceased due to road mortality.

Snakes

Three SAR snake species were identified as being potentially within the Study Area:

- Eastern Foxsnake Carolinian Population (*Pantherophis gloydi*), Endangered under both ESA and SARA
- Gray Ratsnake Carolinian Population (*Pantherophis spiloides*), Endangered under both ESA and SARA
- Eastern Hog-nosed Snake (*Heterodon platirhinos*), Threatened under both ESA and SARA

Critical Habitat and general habitat were identified in previous studies, however the 2023 site visits identified that no suitable habitat was present in the Project Footprint. None of the three species above were observed during site visits.

Other snake species (none which are designated under the ESA/SARA) were observed during the site visits including:

- Six Eastern Garter Snakes (*Thamnophis sirtalis*), one was deceased due to road mortality
- One Dekay's Brown Snake (*Storeria dekayi*), deceased due to road mortality
- One Northern Watersnake (*Nerodia sipedon*), deceased due to road mortality

3.1.1.3 Birds

Surveys for birds included one Breeding Bird survey conducted on the morning of June 6, 2023. A total of 6-point counts were conducted with 26 species of birds recorded. Breeding bird surveys were completed in accordance with the Ontario Breeding Bird Atlas for point counts (Ontario Breeding Bird Atlas 2021).

Potential SAR birds that could be present in the Project Footprint include Least Bittern (*Ixobrychus exilis*) (designated as Threatened under both ESA and SARA) and King Rail (*Rallus elegans*) (designated as Endangered under both ESA and SARA), though neither were observed during the site visits. General habitat for these two species was identified in previous studies and confirmed in 2023. Suitable habitat includes the cattail marshes adjacent to the Project Footprint. Potential Critical Habitat (i.e., suitable nesting habitat) for SAR birds is absent from the Project Footprint, however there is potential for SAR birds to occur incidentally as foraging adults within the Project Footprint. Additional species may occur incidentally during migration.

A Black Tern (*Chlidonias niger*) (designated as Special Concern under the ESAt) was observed flying over; however, it is not anticipated that the Project will impact this species as this species nests within the marsh, not within the footprint of the Project. Barn Swallow (*Hirundo rustica*) (designated as Special Concern under ESA and Threatened although under consideration for status change under SARA) were found deceased in the Study Area.

Several non-SAR bird mortalities were observed in the Study Area, including Common Yellowthroat (*Geothlypis trichas*), European Starling (*Sturnus vulgaris*), Red-winged Blackbird (*Agelaius phoeniceus*), and Tree Swallow (*Tachycineta bicolor*).

3.1.1.4 Bats

Four SAR bats/bat habitat were noted as having the potential to be present in the Study Area, though none were observed during the 2023 site visits: Northern Myotis (*Myotis septentrionalis*), Tri-colored Bat (*Perimyotis subflavus*), Little Brown Myotis (*Myotis lucifugus*), and Eastern Small-footed Myotis (*Myotis leibii*). All four species are designated as Endangered under ESA. Northern Myotis, Tri-colored Bat and Little Brown Myotis are designated as Endangered under SARA.

General habitat was identified in previous studies. 2023 site visits found that Critical Habitat is absent from the Study Area, however occasional habitat features are present.

3.1.2 POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

Based on the proposed scope of work, the potential impacts and proposed mitigation measures have been described in Appendix A for the natural environment including the following environmental components for both the construction and operational phases: physical environment, aquatic environment, terrestrial environment and wildlife in general.

Appendix A also provides the potential impacts and proposed mitigation measures for specific SAR identified with the Study Area or could potentially be found within the Study Area. The likelihood of impacts to each species was assessed based on the presence of suitable habitat, known occurrences, and the likelihood of the species to enter or interact with the Project, given the scope.

3.2 Transportation and Access

Long Point Road will remain operational during construction, to be controlled by flag persons. Driveway access will be maintained as much as possible during construction, with brief closures for milling and paving. The Contractor will be required to provide advance notice to and coordinate with each property owner. A traffic management plan must be developed and refined to minimize impacts to traffic (e.g., providing advance warning and signage) and maintain open lanes where possible. During the minor grading works to occur along the road, emergency service providers and residents will be required to be notified of any potential disruption to vehicular traffic prior to construction so that they can plan routes accordingly.

3.3 Cultural Environment

As the roadway cross-section is narrower and the footprint impacts are reduced, there are reduced/no additional cultural environmental impacts (cultural heritage and archaeology) associated with the modifications. The Stage 4 Archaeological Assessment has been prepared which covers the Project Footprint. The Stage 4 Archaeological Assessment was submitted to the Ministry of Citizenship and Multiculturalism (MCM) for review and acceptance into the Register. No response has been received to date from MCM. If accepted by MCM, no further archaeological work or assessments are required.

3.4 Socio-Economic Environment

3.4.1 PROPERTY

There are no private property impacts as the Project Footprint has a smaller footprint than the ESR design concept. No restoration or grading within private property to tie in accesses is anticipated. All work will remain within the County's road right-of-way.

3.4.2 NOISE & AIR QUALITY

No long-term adverse impacts to noise and air quality are anticipated due to the Project. However, during construction, air quality can be degraded due to dust and/or emissions from construction activities and equipment. There will also be temporary noise impacts resulting from construction activities. There is no change in terms of the impacts and mitigation measures as reflected in the ESR.

4 Public and Stakeholder Consultation

Stakeholder consultation was conducted to present and/or present the modified design. Regulatory agencies were consulted to understanding permitting requirements of various design modification options. Table 2 documents the key issues discussed with relevant agencies and responses provided.

TABLE 2 – SUMMARY OF CONSULTATION FOR PROPOSED DESIGN CONCEPT

Agency	Date	Summary of Consultation	Response
Fisheries and Oceans Canada (DFO)	February 2023	Norfolk County consulted with DFO on the proposed revised roadway design and requested if further information or permits are required.	DFO has confirmed neither DFO review nor any DFO permit is required as there will be no in water work.
Environment and Climate Change Canada (ECCC)	February 2023	Norfolk County consulted with ECCC on the proposed revised roadway design and requested if further information or permits are required.	ECCC has provided confirmation that no <i>Species at Risk Act</i> permit will be required for the revised road rehabilitation approach.
Ontario Ministry of the Environment, Conservation and Parks (MECP)	27Sep23	MECP was provided with the Information Gathering Form (IGF) which included the details of the proposed revised design and the additional background information conducted in 2023. The purpose of providing the IGF was for MECP to confirm if a permit is needed under the <i>Endangered Species Act</i> .	On 19Oct23, MECP responded by noting that the Project should be registered under Ontario Regulation 242/08 s. 23.18 Threats to Health and Safety, Not Imminent and the following was recommended: 1) Appropriate sediment and erosion control measures must be implemented to avoid impacts to the adjacent wetland features that are known to be habitat for several SAR (e.g., turtles, fish). 2) All exclusionary fencing should be put in place prior to the active season for SAR turtles and snakes, i.e., March 31st. 3) Daily sweeps of the work area should be undertaken to ensure no animals have entered the fencing. 4) Any fencing, either reptile exclusion or erosion/sediment control fencing during construction must not have nylon mesh lining to prevent the risk of injury/mortality of SAR snakes. 5) The project should be completed in a way that does not impact the functionality of the multiple ecopassages along the Long Point Causeway.
Long Point Region Conservation Authority (LPRCA)	TBD	LPRCA was provided with a Permit Application for a permit under the Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. This Permit Application included the revised design (90% design drawings).	

A letter was sent to the Indigenous Nations on November 27, 2023, notifying the Nations that the design has been revised to reduce or eliminate potential environmental and archaeological impacts, that they will be sent the Notice of Addendum and requesting if they have any preliminary comments. The Indigenous Nations that were sent the letter include:

- Six Nations of the Grand River First Nation (SNEC);
- Mississaugas of the Credit First Nation (MCFN); and
- Haudenosaunee Development Institute (HDI)

A Notice of Addendum was issued on January 9, 2024, initiating the 30-day review period from January 9, 2024 to February 8, 2024 for the public and agencies to review and respond to the ESR Addendum. The notice includes provisions for anyone wishing to request a Section 16 Order. All residents, agencies, Indigenous Nations and stakeholders who were previously contacted in the original ESR, as well as any additional residents and stakeholders who may be potentially affected by the proposed modifications were provided the Notice of Addendum. A copy of the notice is provided in Appendix B.

5 Additional Work, Permits and Monitoring

5.1 Additional Work and Detailed Design Commitments

There are no changes to the additional work and detailed design commitments identified in the ESR.

5.2 Permits and Approvals

Table 3 provides the list of permits, which ones were documented as required under the ESR, which ones were acquired for the Long Point Causeway Bridge Replacement, and which ones are required for the rehabilitation of the Long Point Causeway under the proposed revised design.

TABLE 3 – PERMITS AND APPROVALS

Permit Name	Agency	ESR	Bridge Replacement	ESR Addendum – Proposed Revised Roadway
<i>Fisheries Act/Species at Risk Act</i>	DFO	Yes	Yes	Not Required
<i>Species at Risk Act/Canada Wildlife Act</i>	ECCC	Yes	Yes	Not Required
<i>Environmental Protection Act – Environmental Activity and Sector Registry</i>	MECP	Yes	Not Required	Not Required
<i>Endangered Species Act, Section 9 and/or 10</i>	MECP	Yes	Yes	Not Required – Registration required under O. Reg. 242/08, s. 23.18
<i>Fish and Wildlife Conservation Act</i>	Ontario Ministry of Natural Resources and Forestry (MNRF)	Yes	Not Required	Not Required
<i>Public Lands Act</i>	MNRF	Yes	Not Required	Not Required
<i>Conservation Authorities Act</i>	LPRCA	Yes	Yes	Yes
<i>Ontario Heritage Act, Archaeological Clearance</i>	MCM	Yes	Yes - Stage 1 AA	Yes – Stage 1 to 4 AA
<i>Canadian Navigable Waters Act</i>	Transport Canada	No	Yes	Not Required

5.3 Monitoring

Monitoring will be undertaken during construction to ensure that specific environmental commitments are met and/or confirm the implementation of the mitigation measures. The following monitoring will occur:

- General construction monitoring, including on-site inspection by an Environmental Monitor who is a Certified Inspector of Sediment and Erosion Control (CISEC) on a regular basis (e.g., monthly or as required, before during and after storm events) over the course of construction to ensure the effectiveness of erosion and sediment control measures and mitigation measures.
- On-site assistance by a Qualified Biologist trained in SAR handling to remove wildlife from the construction area if necessary.

6 Conclusion

As a result of the modifications to the Preferred Design Concept of the original ESR for the Project, this ESR Addendum has been prepared to document the proposed road cross-section; the circumstances necessitating the change; the environmental implications of the change; and, the proposed measures to mitigate any negative environmental impacts. As the proposed road footprint is reduced in comparison with the footprint identified in the ESR, the modified design is anticipated to have reduced the impacts to the natural environment, transportation and traffic, cultural environment, and property.

APPENDIX A – POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

Potential Impacts and Proposed Mitigation

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
Physical Environment	•		<p>Removal of granular on shoulder and associated herbaceous vegetation and excavation of soil associated with the construction of the Project may result in potential for direct and indirect impacts to soils during the construction phase, including:</p> <ul style="list-style-type: none"> • Sedimentation and erosion of soils due to removal of vegetation • Soil contamination from accidental chemical/fuel spills. 	<p>Potential impacts from construction of the Project to soils can be managed through implementation of the following mitigation measures:</p> <ul style="list-style-type: none"> • Vegetation removal will be kept to a minimum, limited to within the Project Footprint (i.e., road shoulder). • Develop an Erosion and Sediment Control (ESC) Plan prior to construction for implementation throughout construction. The ESC Plan will include consideration of the Greater Golden Horseshoe Area Conservation Authorities' Erosion and Sediment Control Guideline for Urban Construction and OPSS 805 (Erosion and Sediment Control Measures). This plan will encompass all areas of soils disturbance. • Construction fencing and ESC fencing, where appropriate, will be installed and maintained to clearly define the construction disturbance area and prevent accidental damage to vegetation, or intrusion into adjacent vegetated areas. Fencing will be monitored and repaired as necessary throughout the construction period and will be removed and disposed of accordingly, post-construction. • Develop a Spill Prevention and Response Plan which will include procedures to minimize the potential for spills and to clean up spills should they occur. The Spill Prevention and Response Plan will include reporting requirements in accordance with regulatory requirements. • The transportation, storage and handling of fuel shall be in accordance with the <i>Technical Standards and Safety Act, 2000</i>. • Machinery and equipment shall be inspected for leaks routinely throughout the duration of construction. • Vehicle maintenance and fuelling will be conducted at the designated and properly contained maintenance areas. • Should a spill occur, restoration/compensation will be confirmed through regulatory agency consultation.
Aquatic Environment	•	•	<p>The Project may result in potential for direct and indirect impacts to the aquatic environment during the</p>	<p>Potential impacts from construction and operations to the aquatic environment can be managed through implementation of the following mitigation measures:</p>

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
			<p>construction and operations phase, including:</p> <ul style="list-style-type: none"> • Sedimentation into the adjacent wetland and watercourses. • Contamination from accidental chemical/fuel spills • Increased impervious surface due to the widened road and shoulders, may increase the amount of runoff that enters the water body (i.e., deleterious substances like hydrocarbons and salt). 	<ul style="list-style-type: none"> • Refueling of equipment should be conducted away from slopes and at least 30 m away from the wetland and watercourses. A designated refueling area should be identified for the Project. • All on-site materials shall be self-contained, maintained according to manufacturer's instructions, and disposed of appropriately to prevent entry of deleterious substances into the natural environment. Stockpiles, on-site hazardous materials, vehicle maintenance and refueling activities shall not be placed or occur within 30 m of a watercourse. A Spill Prevention and Response Plan will be prepared as described above, including having emergency spill kits on site and within equipment. • Necessary ESC will be in place prior to work adjacent to wetland and watercourses. • Monitoring of ESC measures should occur prior to and during or immediately after significant rain events (10 mm over 24 hours). • The Contractor shall complete all work in a manner such that all debris, petroleum products, and other potential contaminants/deleterious substances is contained and prevented from entering the watercourse or wetland. • Should a spill occur, restoration/compensation (if required) will be confirmed through regulatory agency consultation.
Terrestrial Environment	•	•	<ul style="list-style-type: none"> • Both direct and indirect impacts to the terrestrial environment are anticipated from construction of the Project. • Direct impacts include vegetation removal (i.e., herbaceous vegetation on the shoulder), however impacts are anticipated to be minimal as the vegetation posed little to no habitat value. No trees are to be removed. • There is potential for indirect impacts to adjacent vegetation 	<p>Potential impacts to the terrestrial environment from construction and operations of the Project can be managed through implementation of the following mitigation measures:</p> <ul style="list-style-type: none"> • Retain existing vegetation outside the Project Footprint and within the Study Area to the extent practicable. Vegetation removal will be kept to a minimum, limited to within the construction disturbance area, and should be scheduled to occur outside of the overall bird nesting season of April 1st to August 31st, following the mitigation measures described for migratory birds. • ESC fencing will be installed (as noted above) prior to vegetation clearing and maintained throughout construction. • Construction fencing and/or ESC fencing, where appropriate, will be installed and maintained to clearly define the construction disturbance area and prevent accidental damage to vegetation, or intrusion to adjacent vegetated areas. Fencing will be monitored and repaired as necessary throughout the construction period and will be removed and disposed of accordingly, post-construction. • Implement dust control practices (e.g., wetting with water) in dust-sensitive areas.

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
			<p>features (i.e., wetland) during the construction and operations phase, including the following:</p> <ul style="list-style-type: none"> ○ Vegetation clearing/damage beyond the construction area (e.g., due to air emissions and dust deposition); ○ An increase in downstream runoff that can result in erosion impacts on receiving vegetation; ○ Colonization and spread of invasive species; and ○ Spills of fuel and/or application of other hazardous materials (e.g. de-icing substances during winter months) could occur as a result of maintenance activities. Spills have the potential to affect vegetation. 	<ul style="list-style-type: none"> • Remove and dispose of all construction-related debris following construction in appropriately designated areas. • Machinery is to arrive on site in a clean condition and cleaned prior to leaving the site in accordance with the Clean Equipment Protocol for Industry (Halloran et al., 2003) to minimize the spread of invasive species. • Control all activity to prevent entry of any petroleum products, debris or other potential contaminants/deleterious substances, in addition to sediment as outlined above, to the terrestrial environment. A Spill Prevention and Response Plan will be prepared as described above. • Should a spill occur, restoration/compensation (if required) will be confirmed through regulatory agency consultation.
<p>Wildlife Including the following protected SAR species:</p>	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Impacts to wildlife are expected to be minimal given that the Project Footprint is not suitable habitat for wildlife with the exception of road mortality during construction and operations and potential 	<p>The mitigation measures outlined above to protect the terrestrial environment will also protect associated wildlife habitat functions. It is also necessary to ensure the protection of turtles, snakes and other wildlife that may nest or otherwise be encountered incidentally where construction is proposed.</p> <p>For the protection of wildlife in general, the following measures are recommended:</p> <ul style="list-style-type: none"> • Any wildlife incidentally encountered during construction will not be knowingly harmed and will be allowed to move away from the construction area on its own if at all possible.

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
Fowlers Toad (<i>Anaxyrus fowlerii</i>) Blanding's Turtle (<i>Emydoidea blandingii</i>) Spiny Softshell (<i>Apalone spinifera</i>) Spotted Turtle (<i>Clemmys guttata</i>) Eastern Foxsnake Carolinian Population (<i>Pantherophis gloydi</i>) Gray Ratsnake Carolinian Population (<i>Pantherophis spiloides</i>) Eastern Hog-nosed Snake			nesting of reptile species on the shoulder of the road. <ul style="list-style-type: none"> There is potential for wildlife (e.g., snakes, turtles, small mammals, etc.) to be harmed if they enter the proposed work areas. 	<p>In the event that an animal encountered during construction does not move from the construction zone, or is injured, the Environmental Monitor will be notified. The Environmental Monitor will contact MECP for guidance and a qualified Biologist certified in SAR wildlife handling will be called to move the species to an adjacent location.</p> <ul style="list-style-type: none"> To reduce the possibility of contravention of the MBCA, vegetation removal (i.e., herbaceous vegetation within the shoulder of the roadway) should be scheduled to occur outside of the overall bird nesting season of April 1 to August 31. Some birds may nest before and after this peak bird nesting season due to annual seasonal fluctuations. If a nest of a migratory bird is found within the construction area outside of this nesting period it still receives protection. If vegetation must be removed during the overall bird nesting season: <ul style="list-style-type: none"> Nest and nesting activity searches will be conducted by a qualified Biologist no more than 24 hours prior to vegetation removal. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by OBBA criteria (Cadman et. al., 2007). If an active nest or confirmed nesting activity of a migratory bird is observed, regardless of the timing window recommended, a species-specific buffer area following MECP guidelines will be applied to the nest or confirmed nesting activity wherein no vegetation removal will be permitted until the young have fledged from the nest. The radius of the buffer will depend on the species, level of disturbance and landscape context (MOECC, 2014), which will be confirmed by a qualified Biologist, but will protect a minimum of 10 m around the nest or nesting activity. The results of all nest searches will be documented at the end of each survey day in a Technical Memorandum, including information on the searcher, date, time conducted, weather conditions, habitat type, vegetation community type, observations of breeding activity, observations of confirmed nests including coordinates, and, if required, the buffer applied to identified breeding/nesting sites. All on-site staff should undergo environmental awareness training to be able to identify the potential SAR that may be encountered as identified in the ESR Addendum. If any SAR are observed on site, the Environmental Monitor shall be contacted immediately. MECP will be notified of any SAR observed, and operations modified to

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
<i>(Heterodon platirhinos)</i> Least Bittern <i>(Ixobrychus exilis)</i> King Rail <i>(Rallus elegans)</i> Northern Myotis <i>(Myotis septentrionalis)</i> Tri-colored Bat <i>(Perimyotis subflavus)</i> Little Brown Myotis <i>(Myotis lucifugus)</i> Eastern Small-footed Myotis <i>(Myotis leibii)</i>				avoid any negative impacts to the species or their habitat until further direction is provided by the MECP. <ul style="list-style-type: none"> • Reptiles <ul style="list-style-type: none"> ○ Improved exclusion fencing during the operational phase. ○ Efforts should be made to minimize habitat disturbance and removal along the roadway and in adjacent wetlands as part of detailed design. ○ If reptiles (both SAR and non-SAR) are observed during construction, the Project Manager and Project Biologist should be contacted immediately for guidance. ○ A qualified Certified Inspector of Sediment and Erosion Control (CISEC) shall conduct regular inspections of the environmental protection measures (e.g., ESC measures, containment measures, etc.) and identify and mitigate deficiencies. ○ Isolate the construction area with suitable fencing prior to commencing work to prevent reptiles from entering the work area to nest or bask. ○ All exclusionary fencing should be put in place prior to the active season for SAR turtles and snakes, i.e March 31st. Any fencing, either reptile exclusion or ESC fencing during construction must not have nylon mesh lining to prevent the risk of injury/mortality of SAR snakes. ○ Conduct grading activities outside of the active season for turtles (April 15 to October 15) to reduce the likelihood of impacts to turtle nests. ○ Daily sweeps of the work area should be undertaken to ensure no animals have entered the fencing. ○ The project should be completed in a way that does not impact the functionality of the multiple ecopassages along the Long Point Causeway. ○ Any soil stockpiles should preferably be located away from wetlands, and may need to be securely covered and/or isolated to prevent turtles from attempting to nest in these features. Excavation areas should also be isolated and regularly monitored during construction as any areas of exposed soil could be appealing for nesting turtles. ○ Immediately upon observation of an actively nesting female turtle, personnel and vehicles should clear the area within the turtle's line of sight as much as possible to allow the female to finish laying. Startling a nesting female could lead to abandonment of the partially laid nest before the eggs are concealed. The

Environmental Value	Project Phase		Description of Potential Impacts	Mitigation Measures
	Construction	Operation		
				<p>qualified Biologist and Engineer shall be contacted. The qualified Biologist shall contact the Canadian Wildlife Service, and MECP.</p> <ul style="list-style-type: none"> ○ Prohibit the use of rolled erosion control blankets or silt fencing that contain plastic mesh, since these materials are known to cause entanglement and death of snakes. Wire-backed silt fencing with a closely-spaced wire mesh should also be avoided since this material could cause similar issues with Eastern Foxsnake. ● Amphibians <ul style="list-style-type: none"> ○ Efforts should be made to minimize habitat disturbance and removal along the roadway and in adjacent wetlands as part of detailed design. ○ Daily sweeps of the work area should be undertaken to ensure no animals have entered the fencing. ○ If amphibians (both SAR and non-SAR) are observed during construction, the Project Manager and Project Biologist should be contacted immediately for guidance. ● Birds <ul style="list-style-type: none"> ○ During construction, soil stockpiles and excavation areas need to be securely covered to prevent birds from accessing them. ○ If bird species (both SAR and non-SAR) are observed during construction, the Project Manager and Project Biologist should be contacted immediately for guidance. ● Bats <ul style="list-style-type: none"> ○ If bat SAR are observed during construction, the Project Manager and Project Biologist should be contacted immediately for guidance.

APPENDIX B – NOTICE OF ADDENDUM

NOTICE OF ADDENDUM

REHABILITATION OF THE LONG POINT CAUSEWAY FROM LAKESHORE ROAD TO ERIE BOULEVARD

In July 2019, Norfolk County completed a Schedule C Municipal Class Environmental Assessment (MCEA) for the Rehabilitation of the Long Point Causeway from Lakeshore Road to Erie Boulevard (the 'Project'), including the replacement of the Long Point Causeway Bridge, to address deteriorating conditions and transportation needs along the corridor. An Environmental Study Report (ESR) was prepared to document the proposed design and MCEA process.

The Project proceeded to implementation in two phases:

- Phase 1: Detailed design and construction for the replacement of the Long Point Causeway Bridge over Big Creek. Construction was completed in December 2022.
- Phase 2: Detailed design and reconstruction of the Long Point Causeway, from Lakeshore Road to Erie Boulevard.



Due to the constrained causeway corridor, the environmentally sensitive nature of the project location, and the challenges in obtaining provincial and federal permits, the road cross-section that was identified as the Preferred Design Concept in the ESR has been revised to reduce environmental impacts through a reduction of the roadway footprint and grading.

An ESR Addendum has been prepared to document the proposed revisions to the roadway design, the updated existing conditions, impacts and mitigation measures, and the consultation completed. The ESR Addendum is available for public, agency and Indigenous Nation review in accordance with the MCEA. The ESR Addendum will be available for review from January 9, 2024 to February 8, 2024 online at www.norfolkcounty.ca or at the following location:



Norfolk County
Robinson Administration Building, Suite 200
185 Robinson Street
Simco, ON, N3Y 5L6

Interested persons should provide written comments to the Project Team **before February 9, 2024**, to one of the Project Team members listed below:

Jacob Columbus, C.E.T.
Norfolk County Project Manager
185 Robinson Street
Simcoe, ON, N3Y 5L6
Email: Jacob.Columbus@norfolkcounty.ca
Phone: 519-426-5870 x1184

Arianne Cowx, P.Eng.
Consultant Project Manager
103-1393 North Service Road East
Oakville, ON, L6H 1A7
Email: Arianne.Cowx@parsons.com
Phone: 905-512-6893

In addition, there is an opportunity to request a higher level of study or additional commitments through a Section 16 order request to the Minister of Environment, Conservation and Parks (MECP) on the grounds that the order may prevent, mitigate or remedy adverse impacts on the existing Aboriginal and treaty rights.

Requests should specify what kind of order is being requested (additional conditions or an individual environmental assessment), explain how an order may prevent, mitigate or remedy potential adverse impacts on Aboriginal or treaty rights, and can include any supporting information.

The request should be submitted to the Project Team contacts above and to the following contacts by mail, email, fax or hand delivery:

Minister
Ministry of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, ON, M7A 2J3
Email: minister.mecp@ontario.ca

Director, Environmental Assessment Branch
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, ON, M4V 1P5
Email: EABDirector@ontario.ca

For more information on Section 16 orders, please visit the Ministry's website at:
<https://www.ontario.ca/page/class-environmental-assessments-section-16-order>.

Personal information collected on this subject is collected under the authority of the Freedom of Information and Privacy Act, the Municipal Act, and the Environmental Assessment Act. With the exception of personal information, all comments and information received will be maintained on file for use during the project and may be included in project documentation

This Notice issued January 9, 2024
