PROJECT FILE REPORT

Schedule "B" Municipal Class Environmental Assessment Study, Wooler Road CNR/CPR Overpass Bridge, City of Quinte West, Ontario

MP Project No.: CCO-21-4198

Prepared for:

City of Quinte West
7 Creswell Drive, PO Box 490
Trenton, ON K8V 5R6

Prepared by:

McIntosh Perry Consulting Engineers
1329 Gardiners Rd #1
Kingston, ON K7P 0L8

PROJECT FILE REPORT
SCHEDULE "B" MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY, WOOLER ROAD CNR/CPR OVERPASS BRIDGE, CITY OF QUINTE WEST, ONTARIO

Prepared for:

City of Quinte West
7 Creswell Drive, PO Box 490
Trenton, ON K8V 5R6

Prepared by:

McIntosh Perry Consulting Engineers Ltd.
115 Walgreen Road
Carp, Ontario, K0A 1L0

May 15, 2023

Prepared by:

Lauren Walker
Environmental Planner
McIntosh Perry Consulting Engineers Ltd.

Reviewed by:

Nathan Farrell
Senior Environmental Planner
McIntosh Perry Consulting Engineers Ltd.

Approved by:

Curtis Stewart, P.Eng.
Project Manager
McIntosh Perry Consulting Engineers Ltd.

McINTOSH PERRY

May 15, 2023

City of Quinte West
7 Creswell Drive, PO Box 490
Trenton, ON K8V 5R6

Attention: Tim Colasante, Manager of Engineering

RE: Project File Report: Schedule "B" Municipal Class Environmental Assessment Study, Wooler Road CNR/CPR Overpass, City of Quinte West, Ontario.

Dear Mr. Colasante,

McIntosh Perry Consulting Engineers Ltd. (McIntosh Perry) is pleased to submit this Project File Report for the Schedule "B" Municipal Class Environmental Assessment to the City of Quinte West.

This Project File Report provides a comprehensive review of the various solutions, the evaluation criteria, and the final recommendation for the technically preferred solution for Wooler Road (County Road 40) CNR/CPR Overpass Bridge located on Wooler Road (County Road 40). Our team has conducted an in-depth review of the study area, bridge conditions, servicing needs, and stakeholder/public requirements. In particular, this report is intended to:

- Provide a background to the study;
- Define the nature and extent of the problem or opportunity, and explain the source of the concern or issue and the need for a solution;
- Outline the existing structural engineering and environmental (natural, social, cultural) conditions within the study area;
- Provide the alternative solutions considered;
- Provide evaluation followed and selection of the technically preferred solution;
- Define follow-up commitments, and
- Summarize the public consultation program employed.

If you have any questions or require any additional information, please contact the undersigned.

Sincerely,

Curtis Stewart, P.Eng.
McIntosh Perry Consulting Engineers Ltd.
Project Manager

MP Project No.: CCO-21-4198

EXECUTIVE SUMMARY

The City of Quinte West initiated a Municipal Class Environmental Assessment (MCEA) study to assess proposed improvements to the Wooler Road CNR/CPR overpass bridge, located approximately 950 m north of Highway 2. The MCEA study was carried out as a Schedule 'B' undertaking in accordance with the Municipal Class Environmental Assessment process (October 2000, amended 2007, 2011, 2015 and 2023), approved under the Ontario *Environmental Assessment Act.*

The existing Wooler Road (County Road 40) CNR/CPR Overpass Bridge is in a state of deterioration and requires rehabilitation or replacement. The existing bridge is currently carrying two lanes, with no ability to widen to four lanes, and no existing capacity for active transportation facilities. Therefore, the City of Quinte West has the opportunity to identify and evaluate alternative solutions and determine a preferred bridge solution in accordance with the MCEA Process.

This Project File Report has been prepared to present the results of the transportation engineering and environmental assessment study and has been prepared to document the consultation program, findings of technical background studies, the evaluation of alternative design solutions and the selected technically preferred alternative design.

This MCEA study considered five (5) alternative design concepts to address issues within the Wooler Road (County Road 40) CNR/CPR Overpass Bridge study area:

- **Alternative 1:** Do nothing.
- **Alternative 2:** Concrete Overlay with Girder Rehabilitation
- **Alternative 3:** Deck Replacement with Girder Rehabilitation
- **Alternative 4:** Full Superstructure Replacement
- **Alternative 5:** Like-for-like Full Structure Replacement

Consultation in accordance with the requirements of a Schedule "B" MCEA project was carried out to provide members of the community, government agencies, municipal staff, emergency services, Indigenous Communities and other key interest groups an opportunity to review the study process, alternatives and preliminary technically preferred solution.

The Technically Preferred Alternative (TPA) was selected based on a comprehensive review of the five (5) alternative design concepts. The alternative design concepts were evaluated consideration environmental, social, constructability, financial, and operational factors. In conclusion, **Alternative 5: Like-for-like Full Structure Replacement** was selected as the TPA.

Environmental concerns and commitments made during the study were carried forward into the Contract Tender and Drawings for implementation during construction.

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1.0 INTRODUCTION

The City of Quinte West initiated a Municipal Class Environmental Assessment (MCEA) study to assess proposed improvements to the Wooler Road CNR/CPR overpass bridge, located approximately 950 m north of Highway 2 (**Figure 1)**. The MCEA study was carried out as a Schedule 'B' undertaking in accordance with the Municipal Class Environmental Assessment process (October 2000, amended 2007, 2011, 2015 and 2023), approved under the Ontario *Environmental Assessment Act*.

The existing Wooler Road (County Road 40) CNR/CPR Overpass Bridge is in a state of deterioration and requires rehabilitation or replacement. The existing bridge is currently carrying two lanes, with no ability to widen to four lanes, and no existing capacity for active transportation facilities. Therefore, the City of Quinte West has the opportunity to identify and evaluate alternative solutions and determine a preferred bridge solution in accordance with the MCEA Process.

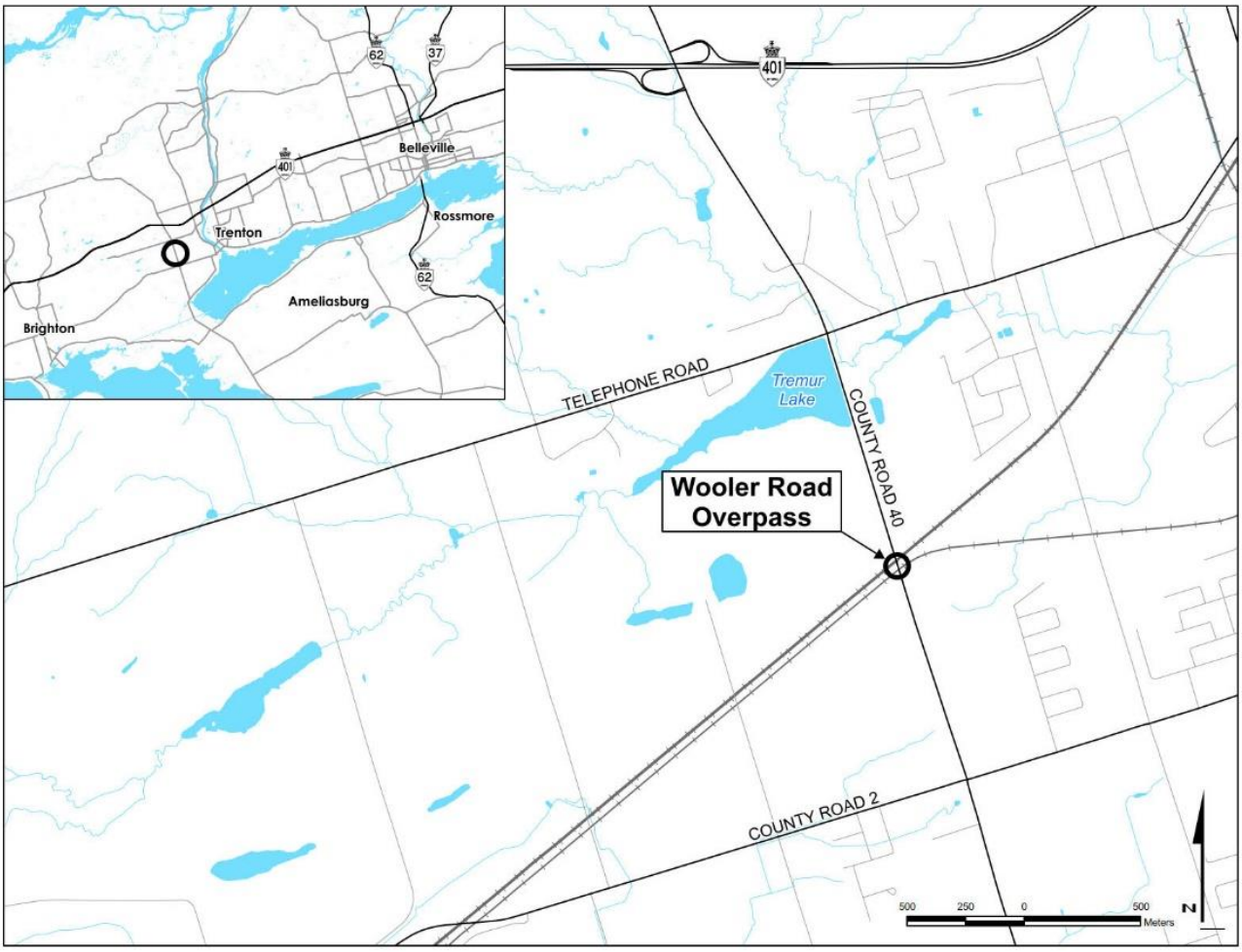


Figure 1: Wooler Road (County Road 40) CNR/CPR Overpass Bridge Study Area Key Map

2.0 CLASS ENVIRONMENTAL ASSESSMENT PROCESS

2.1 Ontario's *Environmental Assessment Act*

Ontario's *Environmental Assessment Act* (EAA) was passed in 1975 and was proclaimed in 1976. The EAA requires proponents to examine and document the environmental effects that could result from major projects or activities and their alternatives. Municipal undertakings became subject to the EAA in 1981. The EAA's comprehensive definition of the environment is:

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

The purpose of the EAA is the betterment of the people as a whole, or any part of Ontario by providing for the protection, conservation and wise management of the environment in Ontario (RSO 1990, c.18, s.2). It is the objective of the EAA proponents to ensure that decisions result from a rational, objective, transparent, replicable, and impartial planning process.

To meet the requirements of Ontario's EAA, class environmental assessments were approved by the Minister of the Environment in 1987 as a means of obtaining project-specific approval under the Ontario EAA. The Class EA approach streamlines the planning and approvals process for projects that are:

- Recurring;
- Similar in nature;
- Usually limited in scale;
- Predictable in the range of environmental impacts, and
- Responsive to mitigation.

2.2 Class Environmental Assessment Process

The MCEA, prepared by the Municipal Engineers Association (MEA) (October 2000, amended 2007, 2011, 2015 and 2023) outlines the procedures to be followed to satisfy MCEA requirements for water, wastewater, stormwater management and road projects. The MCEA process provides municipalities with a five-phase planning procedure approved under the EAA for proponents to follow to meet Ontario's Environmental Assessment requirements.

- **Phase 1:** Problem or Opportunity Statement
- **Phase 2:** Identification and Evaluation of Alternative Solutions
- **Phase 3:** Examination of Alternative Methods
- **Phase 4:** Documentation of the Class EA Process
- **Phase 5:** Implementation and Monitoring.

Projects subject to the Class EA process are classified into the following four "Schedules" based on the degree of the expected impacts.

- **Schedule "A":** Projects are limited in scale, have minimal adverse effects and include the majority of municipal maintenance and operational activities. These projects are approved and may proceed directly to Phase 5 for implementation without following the other phases.
- **Schedule "A+":** Projects are limited in scale and have minimal adverse effects. These projects are approved and may proceed directly to Phase 5 for implementation without following the other phases. However, the public is to be advised prior to project implementation, though there is no ability for the public to request a Part II Order.
- **Schedule "B":** Projects have the potential for some adverse environmental effects. The municipality is required to undertake a screening process (Phases 1 and 2) involving mandatory contact with directly affected public and relevant review agencies to ensure that they are aware of the project and that their concerns are being addressed. Schedule "B" project require that a Project File report be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to Phase 5 for implementation.
- **Schedule "C":** Projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the MCEA Document (Phases 1 to 4). Schedule "C" projects require that an Environmental Study Report be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to Phase 5 for implementation.

Figure 2 illustrates the MCEA planning and design process with the phases required for each schedule.

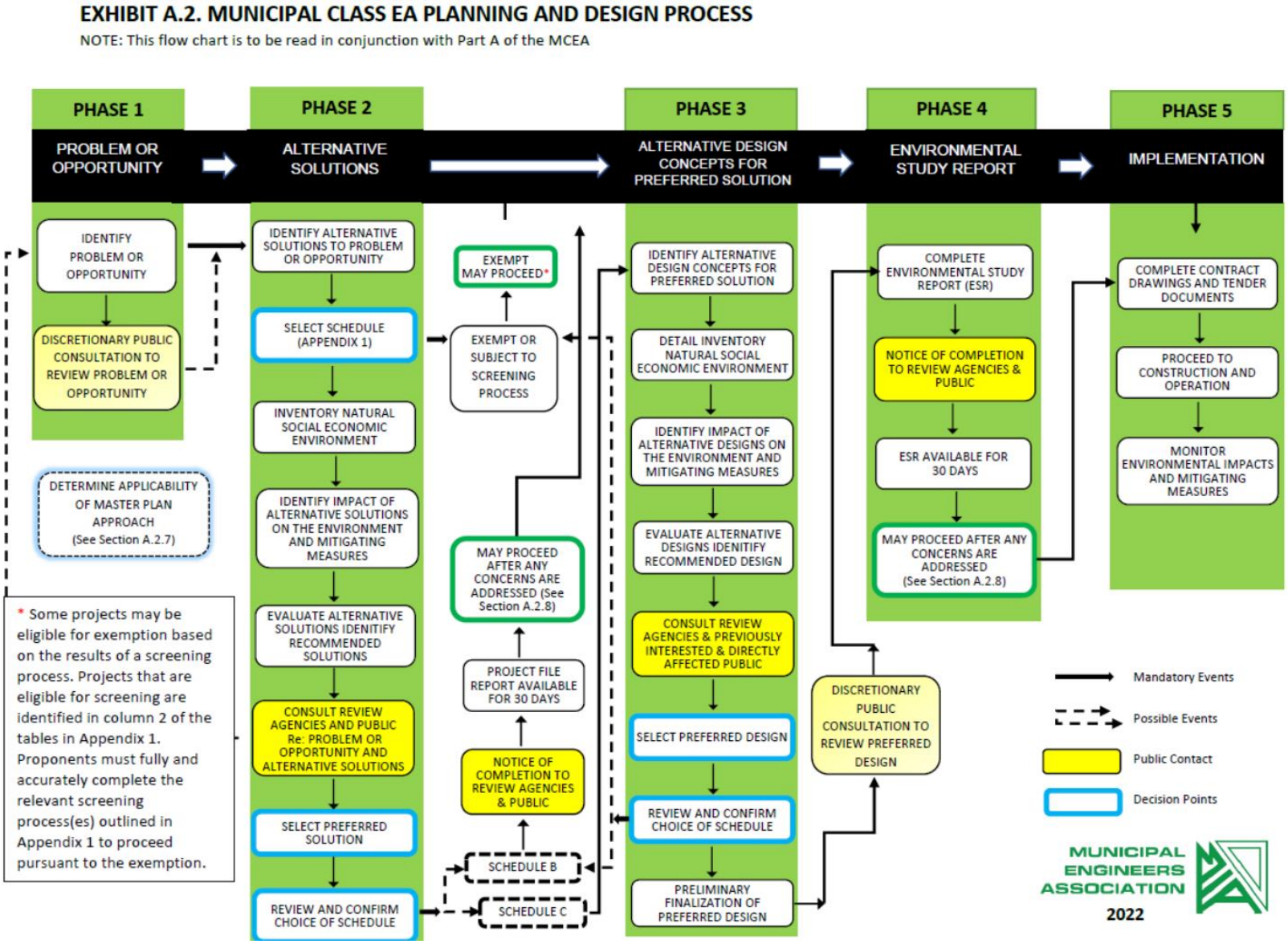


Figure 2: Municipal Class EA Planning and Design Process

2.2.1 Schedule B Classification

The Wooler Road (County Road 40) CNR/CPR Overpass Bridge study is designated as a Schedule "B" undertaking according to the Municipal Class EA (October 2000, amended 2011, 2015 and 2017). A Schedule "B" undertaking must fulfill the first two phases of the MCEA process before moving on to the detail design and implementation. The MCEA planning phases undertaken for this study are listed below.

Phase 1: Identify the Problem / Opportunity
This phase involves not only identifying the problem/opportunity, but also describing it in sufficient detail to formulate a clear problem/opportunity statement. It is important that this statement is concise and considers the goals and objectives of the MCEA, as it is used to dictate the scope of the project.

Phase 2: Identify and Evaluate Alternative Solutions to the Problem/Opportunity
This phase involves undertaking the following six steps:

- Identify reasonable alternative solutions to the problem/opportunity;
- Prepare a general inventory of the existing natural, social and economic environments in which the project is to occur;
- Identify the net positive and negative effects of each alternative solution including mitigating measures, where possible;
- Evaluate the alternative solutions and identify a technically preferred solution;
- Consult with review agencies and the public to solicit comments and input; and
- Select/confirm the technically preferred solution.

2.2.1.1 Mandatory Principles

The planning process followed not only adheres to the guidelines outlined by the MCEA document, but reflects the following five mandatory principles of MCEA planning under the EAA:

- Consultation with affected parties early on and throughout the process, such that the planning process is a cooperative venture;
- Consideration of a reasonable range of alternatives, both functionally different alternative to the project (known as alternative solutions) and alternative methods of implementing the preferred solution;
- Identification and consideration of the effects of each alternative on all aspects of the environment;
- Systematic evaluation of alternatives in terms of their advantages and disadvantages, to determine their net environmental effects; and
- Provision of clear and complete documentation of the planning process followed to allow 'traceability' of decision-making with respect to the project.

Following these five principles ensures that the MCEA process is devoted to the prevention of problems and environmental damage through planning and decision-making, recognizing that research and evaluation of possible impacts have been considered prior to implementation of the project.

2.2.2 Impact Assessment Act

On August 28, 2019, the Impact Assessment Act (IAA) replaced the former *Canadian Environmental Assessment Act* (CEEA), 2012. The projects and activities that are subject to the IAA are very similar to those that were subject to an environmental assessment under the CEAA, 2012. However, some changes have been made to the "Project List", such as new thresholds or projects have been introduced or increased. Under the IAA, only those projects designated by the Physical Activities Regulations or designated by the Minister of Environment on a discretionary basis may be subject to federal environmental assessment.

It has been determined that this project does not include physical activities identified on the list and is therefore not subject to the IAA process.

3.0 STUDY OVERVIEW

Phase 1 of the MCEA study required a clear and concise Problem/Opportunity Statement, followed by Phase 2 Alternative Solutions considered to address the identified Problem/Opportunity. At this point in the study, the details of the Alternative Solutions are considered 'preliminary' until a Preferred Solution is adopted by the City of Quinte West to carry forward into detail design.

The following reports were utilized in the completion of this study:

- Memorandum: Technically Preferred Alternative – Wooler Road, CNR/CPR Overpass Site No. 3004 (McIntosh Perry, 2021)
- Terrestrial Ecosystem Existing Conditions And Impact Assessment Report Wooler Road/County Road 40 CNR/CPR Overpass Bridge (McIntosh Perry, 2023)
- Designated Substance Survey Report: Wooler Road CNR/CPR Overpass Rehabilitation (Site No. 3004) (McIntosh Perry, 2023)
- Stage 1 And 2 Archaeological Assessments Wooler Road CPR/CNR Overpass Rehabilitation MCEA, Part Lots 8 & 9, Concession 1, Geographic Township Of Murray, City Of Quinte West, Ontario (Past Recovery, 2023)

3.1 Phase 1 – Problem/Opportunity Statement

The Wooler Road CNR/CPR Overpass is in a state of deterioration and requires rehabilitation or replacement. The existing bridge is currently carrying two lanes, with no ability to widen to four lanes, and no capacity for active transportation facilities. Therefore, the City of Quinte West has the opportunity to identify and evaluate alternative solutions and determine a preferred bridge solution in accordance with the MCEA Process.

3.2 Phase 2 – Alternative Solutions

To address the Problem/Opportunity Statement the following five (5) Alternative Solutions were developed:

- **Alternative 1:** Do nothing.
- **Alternative 2:** Concrete Overlay with Girder Rehabilitation
- **Alternative 3:** Deck Replacement with Girder Rehabilitation
- **Alternative 4:** Full Superstructure Replacement
- **Alternative 5:** Like-for-like Full Structure Replacement

3.2.1 Alternative 1 - Do nothing.

Alternative 1 leaving the existing bridge in place, in its deteriorating condition. Continued inaction on the deteriorating conditions of Wooler Road (County Road 40) CNR/CPR Overpass Bridge will amount to demolition by neglect which would pose as a health and safety concern. Therefore, Alternative 1 is not considered to be a viable option, however, this option has been carried forward for evaluation to use as a benchmark for the other Alternative Design Concepts.

3.2.2 Alternative 2 - Concrete Overlay with Girder Rehabilitation

Alternative 2 involves superstructure rehabilitation including removal and repair of deteriorated asphalt and concrete, repairing girder ends, diaphragms and bearing seats, repair deck soffit, link slab construction at the piers, new concrete deck overhang, concrete overlay and installation of expansion joints at abutments. The existing substructure would be maintained and repaired.

Based on the 2020 condition survey, it was found that approximately 36.5% of the deck had high corrosion potential and that five out of seven cores tested had chloride contents above the threshold for corrosion initiation. A concrete overlay be used to mitigate chloride ion penetration. This solution involves removing all deteriorated concrete on the deck top, constructing new parapet walls, removing portions of the deck over the piers for the construction of link slabs, and removing deck ends at the abutments for the construction of expansion joints.

Approximately 52% of the existing deck would need to be removed and reconstructed, based on areas where the chloride ion percentage was higher than 0.05% and full-depth removals for joint replacements at the abutments, link slab construction at the piers, and cantilever overhang replacement. Superstructure rehabilitation work for this alternative would include removing asphalt and waterproofing, removing deteriorated concrete on the deck top and from the deck soffit, jacking up the superstructure, repairing girder ends, diaphragms, and bearing seats, replacing all bearings, constructing link slabs at the piers, and installing expansion joints at the abutments. A concrete overlay would be placed on the deck top, and new concrete deck overhang and TL-4 barrier walls would be constructed.

3.2.3 Alternative 3 - Deck Replacement with Girder Rehabilitation

Due to the large area of deck removals identified during structural assessment, the rehabilitation scope of Alternative 3 includes a full replacement of the existing deck with a new concrete deck. Existing substructure would be maintained and repaired. The rehabilitation work includes jacking up and repairing girder ends, diaphragms, and bearing seats, replacing all bearings, removing the existing deck and railing, constructing a new deck (continuous over piers) and new TL-4 barrier walls, waterproofing and paving, and installing expansion joints at the abutments.

3.2.4 Alternative 4 - Full Superstructure Replacement

Alternative 4 consists of replacement of full superstructure, including deck and girders. Existing substructure would be maintained and repaired. The rationale for this is that the cost of deck replacement would be close to superstructure replacement once the cost for existing girder repairs, modification work for the continuation of the deck over the piers, jacking requirements of the superstructure and additional working days are considered. Additionally, there is significant risks to existing top flange of prestressed concrete girder when concrete deck is removed over and around the existing precast girders. This risk can be mitigated by specifying light weight chipping hammers but would result in additional working days and higher cost due to the slow operation. As such, the entire superstructure replacement may be more economical and result in less traffic disruption when more structurally efficient precast NU girders are used for replacement.

3.2.5 Alternative 5 - Like-for-like Full Structure Replacement

To ensure a consistent comparison among the rehabilitation alternatives, a like-for-like full structure replacement with new NU precast girders was considered. This alternative will accommodate 3.7 m wide lanes and 1.8 m wide shoulders for shared bike lanes, which would require a wider deck with a 11.7 m width. The MTO recommends a foundation investigation when there is more than 10% of the dead load increase on foundation and/or more than 0.5 m increase in superstructure width. To accommodate the additional dead load on the foundation of due to 0.6 m wider concrete deck with 225 mm thick, a slab on steel I girders superstructure would be required. Foundation investigation will be required since the widening will be more than 0.5 m.

4.0 INVENTORY OF EXISTING CONDITIONS

This section presents an overview of the background information (secondary source information) and the results of the field investigations undertaken specifically for this study. The following sections provide a summary of the existing natural, socio-economic, and cultural environments, as well as the existing structural conditions of Wooler Road (County Road 40) CNR/CPR Overpass Bridge.

4.1 Natural Environmental Conditions

Determining the existing natural environmental conditions of the study area is required to assess the potential impacts of each alternative option considered as part of this MCEA study. At project initiation background information related to vegetation, soils, fisheries, wildlife, SAR, as well as associated habitat within the study area was obtained from the resources listed below:

- Communications with the local MNRF District – Peterborough District (June 10, 2021);
- The Atlas of the Breeding Birds of Ontario (OBBA) (Bird Studies Canada et al., 2008);
- The Ontario Reptile and Amphibian Atlas (ORAA) (Ontario Nature, 2022);
- The Land Information Ontario (LIO) Metadata Management Tool (LIO, 2022);
- The Ontario Geological Survey Earth (OGS Earth) geoscience database (MNDM, 2020);
- MNRF Make a Map: Natural Heritage Areas mapping application;
- The MNRF Natural Heritage Information Centre (NHIC) database (MNRF, 2022); and,
- Readily available information from interest groups and the general public.

Data collected from these sources included:

- Terrestrial and wetland habitat information;
- Vegetation and wildlife communities typical of the ecoregion;
- SAR potentially present in the study area, and
- Locations of designated areas, ANSI's and Provincially Significant Wetlands (PSW).

The OBBA and ORAA were searched based on the 100 km^2 grid squares encompassing the study area to determine if any bird, reptile, or amphibian SAR were known to occur in the general vicinity. A query of the LIO geodatabase (NHIC dataset) yielded a list of SAR Element Occurrence (EO) records. The LIO geodatabase review also defined the location of ANSIs and PSWs within and adjacent to the study area if present.

The data collected from these sources included terrestrial and wetland habitat information, vegetation and wildlife communities typical of the ecoregion, SAR potentially present in the study area, and locations of designated areas, ANSI's and Provincially Significant Wetlands (PSW).

Field investigations were conducted on September 22, 2022 to collect current, and site-specific information related to terrestrial within the study area by McIntosh Perry. Field investigations included identification of the following where applicable:

- Existing vegetation communities;
- Resident or migrant bird and wildlife species;
- Critical habitat areas, and
- Existing land uses surrounding the study area.

For detailed information obtained through McIntosh Perry's desktop review and field investigations at the Wooler Road (County Road 40) CNR/CPR Overpass Bridge study area, please refer to the Summary of Existing Environmental Conditions and Impact Assessment Report (McIntosh Perry, 2023). The following sections summarize the natural environmental conditions of the study area.

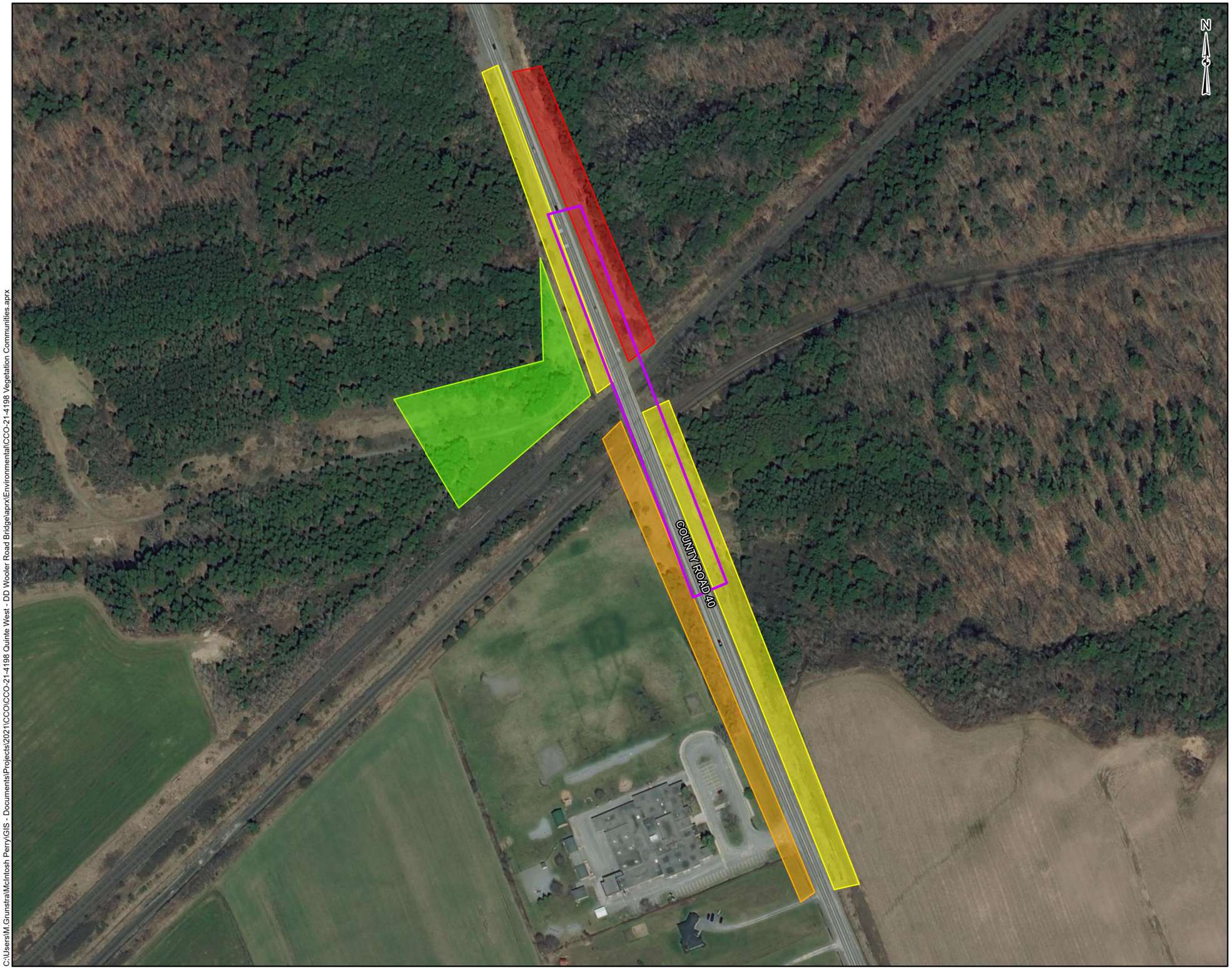
4.1.1 Vegetation

The study area is located in the Lake Simcoe-Rideau Ecoregion (6E). The Lake Simcoe-Rideau Ecoregion (6E) extends from Lake Huron in the west to the Ottawa River in the east. It includes various shores on Lake Ontario and continues through to the Ontario portion of the St. Lawrence River Valley (Crins et al., 2009). This ecoregion is dominated by croplands (57%), followed by pasture lands (44.4%), and abandoned fields (12.8%). The Lake Simcoe-Rideau Ecoregion is primarily deciduous forest (16.0%) with the addition of coniferous and mixed forests. These forests contain characteristic species inclusive of green ash (*Fraxinus pennsylvanica*), silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), eastern white cedar (*Thuja occidentalis*), yellow birch (*Betula alleghaniensis*), balsam fir (*Abies balsamea*), black ash (*Fraxinus nigra*), black spruce (*Picea mariana*) and tamarack (*Larix laricina*) (Crins et al., 2009).

Terrestrial habitat was divided into 5 areas with defined vegetation communities. These communities were characterized and mapped using the MNRF guidelines for Ecological Land Classification for Southern Ontario (Lee, 2009) and included:

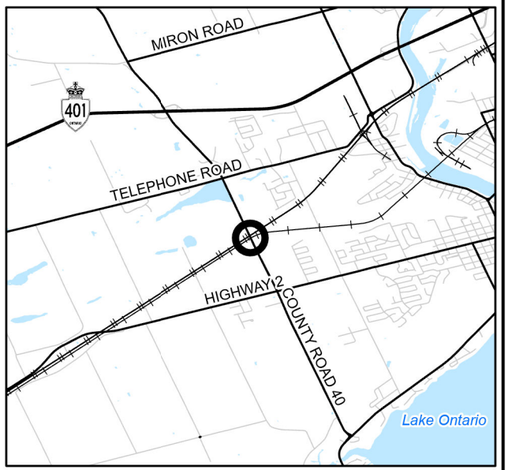
- Vegetation Community 1: Dry-Moist Old Field Meadow Type (CUM1-1)
- Vegetation Community 2: Cultural Thicket (CUT)
- Vegetation Community 3: Sumac Cultural Thicket (CUT1-1)
- Vegetation Community 4: Fresh-Moist White Cedar-Hardwood Mixed Forest (FOM)

Vegetation communities are illustrated in **Figure 3**. For detailed information regarding these vegetation communities, please refer to the Summary of Existing Environmental Conditions and Impact Assessment Report (McIntosh Perry, 2023).



LEGEND

- Study Area
- Dry-Moist Old Field Meadow (CUM1-1)
- Cultural Thicket (CUT)
- Mixed Forest (FOM)
- Sumac Cultural Thicket (CUT1-1)



REFERENCE

GIS data provided by the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry, 2023.

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CLIENT:	CORPORATION OF THE CITY OF QUINTE WEST
PROJECT:	WOOLER ROAD CNR/CPR OVERPASS REHABILITATION
TITLE:	VEGETATION COMMUNITIES

McINTOSH PERRY
115 Walgreen Road, RR3, Carp, ON K0A1L0
Tel: 613-836-2184 Fax: 613-836-3742
www.mcintoshperry.com

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4.1.2 Wetland Habitat

No major watercourses are present at the Wooler Road CNR/CPR Overpass. One unevaluated wetland (swamp) intersects with the northeastern border of the study area, according to LIO data. No PSWs exist within a 2 km radius from the study site.

4.1.3 Wildlife and Migratory Birds

Characteristic wildlife of the Lake Simcoe-Rideau Ecoregion includes American bullfrog (*Lithobates catesbeianus*), eastern Gartersnake (*Thamnophis sirtalis*), groundhog (*Marmota monax*), northern leopard frog (*Lithobates pipiens*), northern watersnake (*Nerodia sipedon*), raccoon (*Procyon lotor*), red-spotted newt (*Notophthalmus viridescens*), Snapping Turtle (*Chelydra serpentina*), spring peeper (*Pseudacris crucifer*), striped skunk (*Mephitis mephitis*), and white-tailed deer (*Odocoileus virginianus*). Representative bird species include the Great Blue Heron (*Ardea herodias*), Hairy Woodpecker (*Leuconotopicus villosus*), Rose-breasted Grosbeak (*Pheucticus ludovicianus*), Scarlet Tanager (*Piranga olivacea*), Wilson's Snipe (*Gallinago delicata*), Wood Duck (*Aix sponsa*), and Wood Thrush (*Hylocichla mustelina*) (Crins et al., 2009). Habitat observed within the study area was characteristic of that supporting many of the wildlife species noted.

Table 1 outlines the wildlife and bird species that were observed in the Wooler Road CNR/CPR Overpass study area during the 2021 and 2022 field investigations and any applicable legislative protection applied to each species.

Table 1: Bird and Wildlife Species Observed in the Wooler Road CNR/CPR Overpass Study Area

Common Name	Scientific Name	Applicable Legislative Protection
Birds		
Wild Turkey	*Meleaagris gallopavo*	Wild Turkey Management Plan (2007)
Mammals		
Raccoon	*Procyon iotor*	None

4.1.4 Fisheries and Aquatic Ecosystems

No major watercourses are present at the Wooler Road CNR/CPR Overpass. However, there is a small tributary of Mayhew Creek approximately 282 m SE of the railway overpass, flowing east-northeast. As such, there are no Fish or Fish Habitat considerations within the study area.

4.1.5 Species at Risk

Background research and field investigations identified the potential for various SAR to be present within the study area. No SAR were observed during either the 2021 or 2022 field investigation.

Of the SAR identified by background information as potentially present within the vicinity of the study area, some habitats present within the study area may be only marginally suitable or fragmented for certain SAR, such as: Eastern Whip-poor-will, Evening Grosbeak, Red-headed Woodpecker, Eastern Small-footed Myotis, Nine-spotted Lady Beetle, and Transverse Lady Beetle. Wood Thrush were not observed due to the seasonality for these migratory species. Due to the scope of the work, they should not be impacted.

Suitable habitat for the following species was deemed to be present within or adjacent to the study area during the field investigation: Monarch, Rusty-patched Bumble Bee, Blanding's Turtle, Midland Painted Turtle, Northern Map Turtle, Snapping Turtle (conservatively a travel corridor for all turtle species), Barn Swallow, Eastern Meadowlark, Golden Winged Warbler, Eastern Wood-Pewee, Northern Myotis, Little Brown Myotis and Tri-colored Bat. For detailed information please refer to the Summary of Existing Environmental Conditions and Impact Assessment Report (2023).

4.1.6 Groundwater

A search of the publicly accessible MECP well records within 500 m of the study area identified twenty (20) domestic and public wells, constructed between 1951 and 2016 to an average depth of 14.25 m below ground surface (MECP, 2021). The static water level on the well records range from 0.00 m to 6.1 m, with an average static level of 1.8 m.

4.1.7 Surface Water

No major watercourses are present at the Wooler Road CNR/CPR Overpass. However, there is a small tributary of Mayhew Creek approximately 282 m SE of the railway overpass, flowing east-northeast.

4.1.8 Grand River Source Protection Area

The study area is located within the Lower Trent Source Protection Area (LTCA), which is subject to the Lower Trent Source Protection Plan LTCA, 2021). The Lower Trent Source Protection Area is a region in Ontario, Canada that covers over 1,600 square kilometers and is responsible for protecting the drinking water sources for over 90,000 people. It is governed by the Lower Trent Conservation Authority and includes a mix of rural and urban areas, with several major rivers and tributaries flowing through it. The area is divided into four distinct regions, each with its own set of policies and regulations aimed at preventing contamination of the drinking water sources and ensuring their long-term sustainability.

The Ministry of Environment, Conservation, and Parks (MECP) Source Protection Information Atlas indicates the Wooler Road (County Road 40) CNR/CPR Overpass Bridge study area with the following:

- Wellhead Protection Area: No
- Wellhead Protection Area (WHPA-E): No
- Intake Protection Zone: 3 ; score is 5.599999904632568
- Issue Contributing Area: No
- Significant Groundwater Recharge Area: No
- Highly Vulnerable Aquifer: Yes ; score is 6

- Event Based Area: No
- Wellhead Protection Area Q1: No
- Wellhead Protection Area Q2: No
- Intake Protection Zone Q: No

4.1.9 Physiography, Soils and Bedrock

The study area is located in the Lake Simcoe-Rideau Ecoregion (6E) and lies within the Lake Iroquois Plain. This area was once the former lakebed of glacial Lake Iroquois and is characterized by bands of beach deposits formed at the shoreline of the ancestral lake and a lacustrine plain extending to present-day Lake Ontario, which represents lake bottom deposits smoothed by wave action. The study area straddles two distinct deposits characteristic to the Lake Iroquois Plain: to the north of the railways, sand plains created by glacio-lacustrine activity are encountered. These surficial deposits consist of a deep layer of glacial till and are overlain by post-glacial sand. In some areas, there are more than 28 meters of overburden.

According to the Provincial soil survey mapping at a 1:50,000 scale, the study area crosses four different soil types. At the north end, the soils are mainly composed of muck and wetland deposits. To the south of this is a pocket of Bookton sandy loam, which is a grey-brown podzolic sand with good drainage and irregular gently sloping, stone-free terrain. The south half of the study area is composed almost entirely of Pontypool sand, which is a grey-brown podzolic sand with rapid drainage. It displays irregular moderately sloping terrain and is slightly stony. The southernmost tip of the study area falls within a deposit of Newcastle silty loam, which is a grey-brown podzolic group of calcareous silty loam with good drainage. There are no bedrock outcrops in the study area. (Ontario Geological Survey, 2011 & LTCA, 2018).

4.1.10 Designated Areas

The study area is located within the Lower Trent Conservation Authority (LTCA) regulated area, which includes regulated floodplain and wetlands. One unevaluated wetland (swamp) intersects with the northeastern border of the study area, according to LIO data. No PSWs exist within a 2 km radius from the study site. Any development in the study area is subject to *Ontario Regulation 155/06, Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*.

4.2 Existing Bridge Condition

The following is a summary of the existing condition from the *Detailed Bridge Condition Survey Report* (Orbit Engineering Limited, 2020) and the OSIM Inspection Report (Greer Galloway Consulting Engineers, 2019). The bridge's asphalt wearing surface on the deck and approaches is in fair condition with unsealed cracks and patches, while the waterproofing membrane is in good condition. The concrete deck has probable corrosion in the reinforcing and the concrete soffit is in fair-to-good condition with unstained and stained cracks, spalls, light scaling, and light pattern-stained cracking. The girders and diaphragms are in fair to poor condition with cracks, delamination, spalls, and light pattern-stained cracks, while the steel railing has split posts and the curbs are generally in fair to good condition but have a high corrosion potential. The deck expansion joints have failed and have been paved over with asphalt. The abutments, wingwalls, and piers are in fair to poor condition with cracks,

delamination, spalls, honeycombing, and light pattern-stained cracks. The pier and abutment bearings are in poor condition, and the concrete slope paving is in poor condition with settlement and vegetation growth. For detailed information please refer to the Technically Preferred Alternative Report (McIntosh Perry, 2023)

4.3 Designated Substances Survey

McIntosh Perry conducted designated substances survey of the accessible materials observed on Wooler Road CNR/CPR Overpass study area. The purpose of the investigation was to meet compliance with Ontario's s *Occupational Health and Safety Act* (1990) to identify the potential for, location of and quantity of designated substances associated with the structure as well as management considerations for the substances identified. The Wooler Road CNR/CPR overpass was reportedly constructed prior to the 1970s and is likely to contain designated substances such as asbestos and lead. During the Site visit, samples of the overpass structure materials were collected for analysis of the presence of lead and asbestos.

All of the samples submitted for asbestos analysis returned results that were non-detectable (ND).

All samples submitted for lead analysis returned results showing the presence of lead.

The following designated substances were not tested for as it was deemed as unwarranted as they are assumed to be present:

- Arsenic – all pressure treated wood;
- Silica – all concrete and mortar on the Site, and
- Lead - -galvanic coatings associated with the bridge siderails and approach guiderails

Pressure treated guiderail posts at the approaches of the structure is known to contain arsenic and therefore sampling and subsequent laboratory testing was not deemed necessary.

For details related to the designated substances survey and how to address designated substances, please refer to the Designated Substances Survey report, prepared by McIntosh Perry dated May 4, 2023.

4.4 Archaeological Resources

A Stage 1 & 2 Archaeological Assessment was conducted by Past Recovery Archaeological Services Inc. in February 2023 for Wooler Road (County Road 40) CNR/CPR Overpass Bridge prior to the commencement of this MCEA Study. The objective of the Stage 1 & 2 Archaeological Assessment was to compile available information known and potential cultural heritage resources within the study area and provide direction for the protection, management and/or recovery of these resources, consistent with the Ministry of Citizenship and Multiculturalism (MCM) Guidelines.

The purpose of the Stage 1 investigation was to evaluate the archaeological potential of the study area and present recommendations for the mitigation of any significant known or potential archaeological resources. To this end, historical, environmental and archaeological research was conducted in order to make a determination of archaeological potential. The results of this study indicated that portions of the subject

property retained potential for pre-Contact and post-Contact archaeological resources, excluding areas of deep disturbance associated with the construction of the road and the bridge.

The purpose of the Stage 2 assessment was to determine whether or not the property contained archaeological resources requiring further assessment, and if so to recommend an appropriate Stage 3 assessment strategy. Field testing was undertaken over the course of two days, on November 21st and 22nd, 2022. The assessment was conducted by means of shovel test pit testing across all parts of the study area determined to retain archaeological potential. Archaeological resources of concern were not recovered during the survey. The subject property has therefore been determined to retain no further cultural heritage value or interest (CHVI).

4.5 Cultural Heritage Value

Under the MCEA system, any bridge that is 40 years old and over require screening for CHVI. Accordingly, the MECP Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Assessment Checklist was completed by McIntosh Perry's Cultural Heritage Lead. This checklist determined that no Cultural Heritage Evaluation Report (CHER) is required for the bridge rehabilitation, based on bridge style (Precast with concrete deck). Accordingly the bridge does not retain any CHVI.

5.0 CONSULTATION PROGRAM

Consultation is a key component of the MCEA process for Schedule "B" projects. It is important for members of the community and stakeholders to provide balanced and objective information and consulting them to obtain feedback on the study process, alternatives, and preliminary technically preferred solution.

A consultation program was developed specific to this study under the following basis:

- Present clear and concise information at key stages of the study process;
- Solicit community, regulatory and municipal staff input;
- Identify concerns related to the undertaking;
- Consider stakeholder comments when developing the technically preferred solution; and
- Meet MCEA consultation requirements.

Consultation early and throughout the MCEA process attempts to meet the growing expectation on the part of the public that they will be consulted regarding decisions made by public decision-making bodies. The project Consultation Materials can be found in **Appendix A**.

5.1 Project Contact List

A Project Contact List was developed at the initiation of this study and regularly updated throughout the course of the project to add, remove or revise information as necessary. The Project Contact list includes government ministries/agencies, municipal staff, emergency services, school boards, student transportation, businesses, potentially affected pubic, members of provincial and federal parliament, Indigenous Communities and key interest groups. The Project Contact List can be found in **Appendix A**.

5.2 Study Commencement

Notice of Study Commencement letters were distributed by McIntosh Perry on April 21, 2023, to the project Contact List. The Notice of Study Commencement was posted to the City of Quinte West's website. The Notice of Study Commencement can be found in **Appendix A**.

A summary of the comments received from the Notice of Study Commencement have been provided in **Table 2** below.

Table 2: Responses to Notice of Study Commencement		
Stakeholder/Agency	**Comments Received**	**How It Was Addressed / Response Sent**
Lower Trent Conservation Authority (LTCA)	The LTCA responded to the Notice of Study Commencement to advise that since the study contains unevaluated wetlands and field-verified wetlands in the subject area, as well as a tributary of Mayhew Creek approximately 350 meters from the overpass. The LTCA asked that the project team continues to involve them in the Class EA process moving forward.	The project team responded to thank the LTCA for their comments on the Notice of Study Commencement and advised that updates would be provided as the project progresses.
Ministry of Environment, Conservation and Parks (MECP)	The MECP responded to the Notice of Study Commencement and provided a letter of acknowledgement and the 'Client's Guide to Preliminary Screening for Species at Risk'. The letter of acknowledgement included information on the Crown's legal duty to consult with Aboriginal communities and provided a list of potentially affected communities to be included during the consultation process for this assignment.	The project team responded to thank the MECP for their comments and information. Consultation with the list of potentially affected Indigenous Communities was undertaken throughout the consultation process for this MCEA. Furthermore, the MECP's 'Client's Guide to Preliminary Screening for Species at Risk' was undertaken by the project team and a SAR Information Request was sent on April 29, 2021. For details on the information provided from the MECP for potential SAR within the study area, please see **Appendix A**.
Member of Parliament **Bay of Quinte**	Acknowledged receipt of the notice.	No response required.
Ministry of Citizenship and Multiculturalism	The MCM responded to the Notice of Study Commencement and commented that they acknowledge that the Archaeological and Cultural Heritage requirements for this EA have been addressed in the Online PIC.	No response required.
Hiawatha First Nation	Hiawatha First Nation acknowledged receipt of the notice and indicated if they had any questions or concerns they would contact us.	No response required.

5.3 Indigenous Community Involvement

Engaging Indigenous Communities is an important way of acknowledging interest in the stewardship of their heritage. The project team reached out to the MECP for input and recommendations on the Indigenous Communities contacts who may have an interest in this project.

The MECP recommended that the following communities be engaged during the consultation process for this MCEA study: Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Mississaugas of Scugog Island First Nation, Williams Treaties First Nations, Georgina Island First Nation, Chippewas of Rama, Beausoleil First Nation, and Mohawks of the Bay of Quinte. MECP also noted that the Métis Nation of Ontario (MNO) could also be included on the project notification list.

The project team included all of the above-mentioned Indigenous Communities on the distribution of all project notices. A summary of the consultation responses with Indigenous Communities has been included in **Table 2** above.

5.4 Online Public Information Centre

In compliance with the MCEA process, the City hosted an Online Public Information Centre (PIC) to elicit input on the study process and the design alternatives. Notice of Public Information Centre (PIC) letters were distributed by McIntosh Perry on April 21, 2023, to the project contact list and all properties in the vicinity of the study area (**Appendix A**). The Notice of PIC was posted on the City of Quinte West's website on April 21, 2023.

Online PIC was available through the City of Quinte West's website from April 21, 2023, to May 5, 2023. Visitors were given the opportunity to submit comments and questions and responses were provided as needed.

During the 14-day Online PIC, several responses to the PIC were directed to the project team, which have been summarized in **Table 3**. PIC materials including information slides, FAQ's and comments/responses received, can be found in Appendix A.

Table 3: Responses to Online Public Information Centre		
Stakeholder/Agency	**Comments Received**	**How It Was Addressed / Response**
Local Resident	Expressed concerns regarding the detour route along 2nd Dug Hill Road, and vehicles potentially getting stuck under the crossing.	The project team thanked this stakeholder for their comments and clear direction for staff and noted that their feedback would be considered as part of the study.
Local Resident	Expressed concerns regarding the train whistle at the 2nd Dug Hill Road Crossing.	The project team thanked this stakeholder for their comments and clear direction for staff and noted that their feedback would be considered as part of the study.

To summarize, based on the comments received during consultation of this project, it was determined that there were no significant concerns with the proposed recommended alternative (i.e., Replacement of Wooler Road (County Road 40) CNR/CPR Overpass Bridge). The comments received generally expressed agreement with the recommended alternative (i.e., replacement of the bridge).

6.0 EVALUATION OF ALTERNATIVE SOLUTIONS

An evaluation of Alternative Solutions was undertaken to address the problem and opportunity statement identified for this project, considering all aspects of the MCEA study. The overall assessment and evaluation process followed two basic concepts:

1. Assessment of Alternatives: the potential benefits of each alternative are assessed against a comprehensive set of criteria for Structural Integrity/Public Safety, Natural Environment, Socio-economic and Implementation factor groups.

2. Evaluation of Alternatives: A comparative evaluation of alternatives to identify a preliminary technically preferred design alternative.

An evaluation framework was developed by the Project Team, including technical considerations and environmental components that address the broad definition of the environment as described in the EAA and those based on comments received from relevant agencies. The evaluation of alternatives was carried out using the Reasoned Argument method of comparing differences in impacts and providing a clear rationale for the selection of the technically preferred alternative. **Table 4** identifies the evaluation criteria and rationale, as well as the criteria measures and corresponding descriptions.

The evaluation of Alternative Solutions considers the positive and negative potential impacts associated with each of the design alternatives in consideration of the criteria listed in **Table 4**. This evaluation is a relative comparison to be used to determine which alternative is technically preferred.

As illustrated in **Figure 4**, each criterion was given a score on a scale from least preferred (empty circle) to most preferred (solid circle).

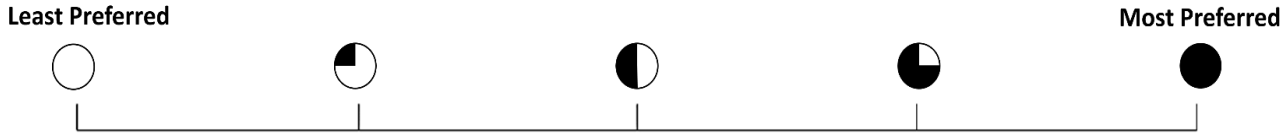


Figure 4: Evaluation of Alternative Solutions Scale of Preference

Table 4: Evaluation Criteria and Measures

Evaluation Criteria	Description of Criteria	Criteria Measures	Alternative 1 (Do Nothing)	Alternative 2 (Concrete Overlay with Girder Rehabilitation)	Alternative 3 (Deck Replacement with Girder Rehabilitation)	Alternative 4 (Full Superstructure Replacement)	Alternative 5 (Like-for-like Full Structure Replacement)
Transportation	Criteria to evaluate whether the alternative Solution addresses the problem and opportunities identified at Wooler Road (County Road 40) CNR/CPR Overpass Bridge; as well as, evaluate the operational suitability and engineering characteristics of the Solution.	- Traffic Operations - Active Transportation - Future Traffic Needs	- Meets current and projected traffic needs to the 20+ year time frame. - Unable to accommodate widening for planned active transportation infrastructure (i.e. Buffered paved shoulder) - Unable to accommodate future traffic needs such as road widening to four lanes	- Meets current and projected traffic needs to the 20+ year time frame. - Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. - May not meet requirements for a buffered paved shoulder. - Unable to accommodate future traffic needs such as road widening to four lanes	- Meets current and projected traffic needs to the 20+ year time frame. - Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. - May not meet requirements for a buffered paved shoulder. - Unable to accommodate future traffic needs such as road widening to four lanes	- Meets current and projected traffic needs to the 20+ year time frame. - Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. - May not meet requirements for a buffered paved shoulder. - Unable to accommodated future traffic need such as road widening to four lanes	- Meets current and projected traffic needs to the 20+ year time frame. - Able to accommodate widening for planned active transportation infrastructure. - Able to accommodate future traffic needs such as road widening to four lanes.
Evaluation			○	◔	◑	◑	●
Structural	Criteria to evaluate the alternative Solutions to determine which will have the least risks and greatest extension of service life.	- Safety Considerations - Extension of Service Life - Durability	- Does not address current deterioration in order to extend the service life of the structure.	- Significant areas of the deck remain with high corrosion potential and chloride ingression. - Patching of girder ends is difficult due to limited. access and poor bond. - Rebuilding of bearing seats difficult with existing girders in place. - Durability is considered to be poor. - Risk of damage to existing girders.	- Full deck replacement to eliminate all chloride contamination in the deck. - Patching of girder ends difficult due to limited access and poor bond. - Rebuilding of bearing seats difficult with existing girders in place. - Durability is considered to be moderate. - Risk of damage to existing girders.	- Full deck and girder removal. - Easier access to abutment and bearing seat reconstruction. - Existing substructure will remain and require significant reconstruction. - The overall service life of the structure would only be 50 years. - Durability is considered to be moderate.	- Full structure removal. - Easier access and construction for the replacement structure. - Minimal future intervention aside from standard maintenance. - Replacement with integral abutments which can provide higher durability as it eliminates expansion joints. - Service life expected to be 75+ years. - Durability is considered to be good.
Evaluation			○	◔	◑	◕	●

Evaluation Criteria	Description of Criteria	Criteria Measures	Alternative 1 (Do Nothing)	Alternative 2 (Concrete Overlay with Girder Rehabilitation)	Alternative 3 (Deck Replacement with Girder Rehabilitation)	Alternative 4 (Full Superstructure Replacement)	Alternative 5 (Like-for-like Full Structure Replacement)
Natural Environment	Criteria to evaluate the alternative Solution's effects on the natural environment, habitats, and water quality.	- Species at Risk (SAR) - Environmentally Sensitive Areas - Wildlife Habitats	- Continued deterioration of Wooler Road CNR/CPR Overpass may pose significant impacts to the natural environment. - Potential impacts to SAR can be mitigated. - No anticipated impacts to groundwater or surface water. - No anticipated climate change impacts.	- Moderate/temporary impacts to the natural environment during construction - Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. - Potential impacts to SAR can be mitigated. - No anticipated impacts to groundwater or surface water. - No anticipated climate change impacts	- Moderate/temporary impacts to the natural environment during construction - Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. - Potential impacts to SAR can be mitigated. - No anticipated impacts to groundwater or surface water. - No anticipated climate change impacts.	- Moderate/temporary impacts to the natural environment during construction - Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. - Potential impacts to SAR can be mitigated. - No anticipated impacts to groundwater or surface water. - No anticipated climate change impacts.	- Moderate/temporary impacts to the natural environment during construction - Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. - Potential Impacts to SAR can be mitigated. - No anticipated impacts to groundwater or surface water. - Increased greenhouse gas emissions may be incurred due to detours during construction. GHG emissions will ultimately be reduced due to less traffic congestion.
Evaluation			○	◐	◐	◐	◐
Social and Cultural Environment	Criteria to evaluate the alternative Solution's effects on community and social features, businesses, properties, and, archaeological, built and cultural heritage features within the study area.	- Land Use Impacts - Archaeological, Built Heritage & Cultural Heritage Features	- Continued deterioration of Wooler Road CNR/CPR Overpass may pose a health and safety concerns, leading to eventual closure. - Operational issues for rail traffic due to potential debris and deterioration. - No anticipated cultural heritage impacts. - No anticipated impacts to archaeological resources. - No construction related impacts.	- Wooler Road CNR/CPR Overpass would remain open to the public. - No operational concerns for rail traffic. - No anticipated cultural heritage impacts. - No anticipated impacts to archaeological resources. - No construction related impacts. - Moderate construction related impacts anticipated. - Local residents may experience an increase in noise during the construction.	- Wooler Road CNR/CPR Overpass would remain open to the public. - No operational concerns for rail traffic. - No anticipated cultural heritage impacts. - No anticipated impacts to archaeological resources. - No construction related impacts. - Moderate construction related impacts anticipated. - Local residents may experience an increase in noise during the construction.	- Wooler Road CNR/CPR Overpass would remain open to the public. - No operational concerns for rail traffic. - No anticipated cultural heritage impacts. - No anticipated impacts to archaeological resources. - No construction related impacts. - Moderate construction related impacts anticipated. - Local residents may experience an increase in noise during the construction.	- Wooler Road CNR/CPR Overpass would remain open to the public. - No operational concerns for rail traffic. - No anticipated cultural heritage impacts. - No anticipated impacts to archaeological resources. - No construction related impacts. - Moderate construction related impacts anticipated. - Local residents may experience an increase in noise during the construction.
Evaluation			○	◐	◐	◐	●

Evaluation Criteria	Description of Criteria	Criteria Measures	Alternative 1 (Do Nothing)	Alternative 2 (Concrete Overlay with Girder Rehabilitation)	Alternative 3 (Deck Replacement with Girder Rehabilitation)	Alternative 4 (Full Superstructure Replacement)	Alternative 5 (Like-for-like Full Structure Replacement)
Construction	Criteria to evaluate the financial implications and implementation opportunities of the alternative Solution.	- Estimated Construction Duration - Anticipated delays due to Construction	- No construction is required.	- Construction duration is anticipated to be approximately 150 days over 2 seasons. - Traffic to be reduced to a single lane managed with portable temporary traffic signals. - Additional delay and queueing expected for the public.	- Construction duration is anticipated to be approximately 150 days over 2 seasons. - Traffic to be reduced to a single lane managed with portable temporary traffic signals. - Additional delay and queueing expected for the public.	- Construction duration is anticipated to be approximately 135 days over 2 seasons. - Traffic to be reduced to a single lane managed with portable temporary traffic signals. - Additional delay and queueing expected for the public.	- Construction duration is anticipated to be approximately 205 days over 2 seasons. - Traffic to be reduced to a single lane managed with portable temporary traffic signals. - Additional delay and queueing expected for the public.
Evaluation			○	◐	◐	●	◔
Cost	Criteria to evaluate the financial implications and implementation opportunities of the alternative Solution.	- Capital Costs - Operational and Maintenance Costs	- No cost, due to no proposed works.	- Lowest capital costs due to minimal project scope. - Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	- Second lowest capital costs due to minimal project scope. - Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	- Second highest capital costs due to more detailed project scope relative to Alternatives 2 and 3. - Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	- Highest capital costs due to largest project scope. - Life cycle cost, including operational and maintenance costs are the lowest when future 4-lane widening is anticipated in 10-20 years.
Evaluation			○	◐	◐	◐	●

6.1 Evaluation Summary

Each of the Alternative Solutions were evaluated based on criteria developed by the Project Team. The evaluation was completed as a Team, resulting in a recommended alternative solution to the Problem/Opportunity Statement. An Evaluation Summary is provided in **Table 5** below.

Table 5: Evaluation Summary

Evaluation Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Transportation	○	◕	◑	◑	●
Structural	○	◕	◑	◔	●
Natural Environment	○	◑	◑	◑	◑
Socio-Cultural Environment	○	◑	◑	◑	●
Construction	○	◑	◑	●	◔
Cost	○	◑	◑	◑	●
Summary					Technically Preferred Alternative

7.0 TECHNICALLY PREFERRED ALTERNATIVE SOLUTION

The alternatives were assessed against the evaluation criteria as appropriate. The overall comparative evaluation of alternatives was based on a qualitative methodology and did not include the assignment of factor significance weightings, however transportation/operational, technical/structural, and implementation considerations were considered to be the three most important criteria groupings.

The selection of the recommended alternative solute on involved identifying and making trade-offs among the advantages and disadvantages of the alternatives. The alternative that had the most overall advantages was recommended as the technically preferred alternative.

Based on the above evaluation, correspondence with governing agencies (i.e., LTCA, etc.) and Indigenous Communities, and public input, the Technically Preferred Alternative (TPA) is **Alternative 5 – Like-for-like Full Structure Replacement of the Wooler Road CNR/CPR Overpass in the current location.**

The recommended TPA allows the City of Quinte West to provide safe and reliable connectivity on Wooler Road (County Road 40). This option was determined to have the best balance of benefits for transportation/operational, technical/structural while having minimal impacts to the socio-economic and natural environment.

The key benefits of the recommended TPA are:

- Low engineering risks as all bridge components would be new, with an anticipated service life of approximately 75 years;
- The new bridge would be constructed to accommodate future widening and increased active transportation facilities;
- Lowest life cycle cost, and
- Minimizes future maintenance interventions.

8.0 SUMMARY AND CONCLUSIONS

Based on the comprehensive review of five (5) different alternative solutions against a multiple bottom line evaluation process that takes into consideration environmental, social, constructability, financial, and operational factors, **Alternative 5 – Like-for-like Full Structure Replacement of the Wooler Road CNR/CPR Overpass in the current location** has been identified as the Technically Preferred Alternative as it addresses the problem statement for this study.

The Technically Preferred Alternative offers the best asset value to the City of Quinte West from an operations, maintenance and lifecycle perspective, whilst having minimal overall impact to the natural environment.

8.1 Public Review Period

This Project File Report meets the requirements of a Schedule "B" Municipal Class EA study. The Project File Report will be filed for 30-days, from May 14, 2023 to June 14, 2023, for public reviewing and comment.

During the Public Review Period, a request may be made to the Ministry of Environment, Conservation and Parks for an order requiring a higher level of study, or that conditions may be imposed, only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Request on other grounds will not be considered. Requests should include the requesters contact information and full name for the ministry.

Requests should specify what kind of order is being requested, how an order may prevent, mitigate or remedy those potential adverse impacts, and any information in support of the statements in the request. The request should be sent in writing or by email to the proponent and the following:

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

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto, ON M4V 1P5
EABDirector@ontario.ca

Provided no comments or Part II Orders are received during the 30-day review process, it is recommended that the City of Quinte West proceed with detail design and implementation.

8.2 Permitting and Approvals

No additional permitting and approvals will be required during the detail design stage.

8.3 Monitoring

Environmental monitoring is essential to characterize and monitor the quality of the surrounding environment, identify potential negative effects and refine mitigation measures, ensure compliance with environmental regulations, and prevent long-term adverse impacts on the environment.

A comprehensive monitoring program will be developed in the detailed design phase for the replacement of Wooler Road (County Road 40) CNR/CPR Overpass Bridge. This program will be designed to monitor impacts to the environment during the various stages of construction and following construction completion. This will allow for an inclusive assessment of cumulative impacts. The key elements of the comprehensive monitoring program will include, but are not limited to, the following, described below:

- Construction works monitoring; and
- Environmental compliance monitoring

8.3.1 Construction Works Monitoring

The objective of Constructed Works monitoring is to assess the structural integrity of the construction and their effectiveness with respect to controlling environmental impacts during construction (i.e., erosion and sediment control, etc.).

Construction-phase and post-construction monitoring may include recording of water levels, photographic record of the constructed works, and a review of constructed works by a qualified engineer. Construction-phase monitoring may also include ongoing monitoring of turbidity upstream and downstream of the construction. Post-construction monitoring may also be undertaken to monitor and maintain the proposed bridge replacement including site investigations to confirm no negative impacts are occurring upstream and downstream of the bridge.

8.3.2 Commitments

During this study, the following commitments were identified for consideration:

- During construction, Wooler Road will be reduced to single lane of traffic and use a one-lane, two-way operation managed with the use of portable temporary traffic signals. The public can expect to experience delays and queueing on Wooler Road during construction.
- Any wildlife and vegetation, including SAR that may be disturbed during construction will be considered and mitigation for migratory bird nesting window restrictions, reestablishment of vegetation removal areas, etc. will be included in the Contract Documents and adhered to by the Contractor.
- The Contractor will be required to carry out activities in a manner that minimizes noise levels.
- Building materials identified as containing designated substances shall be handled and disposed of according to the *Occupational Health and Safety Act*.

APPENDIX A – CONSULTATION MATERIALS

Title	First Name	Last Name	Position	Organization	Address	City	Prov	Postal Code	Telephone	Email
Provincial Agency										
Sir/Madam			Class EA Form	Ministry of Environment, Conservation and Parks						eanotification.eregion@ontario.ca
Mr.	Hal	Leadlay	District Planner, Peterborough District	Ministry of Natural Resources and Forestry	1st Flr S, 300 Water Street	Peterborough	ON	K9J 3C7	705-755-3363	hal.leadlay@ontario.ca
Mr.	Dan	Minkin	Heritage Planner, Heritage Planning Unit	Ministry of Heritage, Sport, Tourism and Culture Industries	401 Bay Street	Toronto		M7A 0A7	416-786-7553	dan.minkin@ontario.ca
Ms.	Jessica	Hill	Senior Advisor - Indigenous Relations Unit	Ministry of Indigenous Affairs	160 Bloor Street, Suite 400	Toronto	ON	M7A 2E6	416-326-4744	jessica.hill2@ontario.ca
Mr.	Todd	Smith	MPP	Bay of Quinte	5503 Hwy 62 S	Belleville	ON	K8N 0L5	613-962-1144	todd.smithco@pc.ola.org
Mr.	Neil	Ellis	Member of Parliament	Bay of Quinte	250 Sidney Street	Belleville	ON	K8P 3Z3	613-992-0752	Neil.Ellis@parl.gc.ca
Municipal Agency										
Mr.	Jim	Harrison	Mayor	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x 4489	mayor@quintewest.ca
Mr.	Jim	Alyea	Deputy Mayor- Ward 3 Murray	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-848-4426	
Mr.	David	McCue	Councillor- Ward 3 Murray	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-848-0112	
Ms.	Jane	Mielke	Executive Assistant to the Mayor & Council	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x 4433	
Mr.	David	Clazie	Chief Administrative Officer	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x 4448	
Mr.	Kevin	Heath	Manager Corporate Services/City Clerk	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x 4490	
Mr.	Brian	Jardine	Director, Planning & Development Services	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x4467	
Ms.	Judith	Jeffery	Area Planner Rural Areas Murray, Sidney & Batawa	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x4418	
Mr.	Chris	Angelo	Director Public Works & Environmental Services	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x4406	
Mr.	Tim	Colasante	Manager Engineering	City of Quinte West	7 Creswell Drive, PO Box 490	Trenton	ON	K8V 5R6	613-392-2841 x4408	
Emergency Services										
Constable	Scott	Woodburn	Provincial Constable	Ontario Provincial Police	86 Advance Avenue	Napanee	ON	K7R 3Y6	613-354-3369	scott.woodburn@opp.ca
Mr.	John	Whelan	Fire Chief	City of Quinte West	49 Dixon Drive	Trenton	ON	K8V 1W6	613-392-2841 x 7464	
Mr.	Bill	Trumley	President	Quinte West Community Policing	29 Dundas Street West	Trenton	ON	K8V 3N9	613-392-0911	
Inspector	Christia	Reive	Detchament Commander	Quinte West OPP	3 Dixon Drive, PO Box 1050	Trenton	ON	K8V 6E6	613-392-3561	
Mr.	Doug	Socha	Chief and Director of Emergency Services	Hastings-Quinte Paramedic Service	111 Millennium Parkway	Belleville	ON	K7R 3Y6	613-771-9366 x. 224	sochad@hastingscounty.com
Indigenous Communities										
Chief	Dave	Mowat	Chief	Alderville First Nation	P.0 Box 46, 11696 Second Line Rd.	Alderville	ON	K0K 2X0		dmowat@alderville.ca
Mr.	Dave	Simpson	Lands & Resource Coordinator	Alderville First Nation	P.0 Box 46, 11696 Second Line Rd.	Alderville	ON	K0K 2X0		consultation@aldervillefirstnation.ca
Chief	Emily	Whetung	Chief	Curve Lake First Nation	22 Winookeeda Road	Curve Lake	ON	K0L 1R0		EmilyW@curvelake.ca
Ms.	Kaitlin	Hill	Lands Resource Consultation Liaison	Curve Lake First Nation	22 Winookeeda Road	Curve Lake	ON	K0L 1R0		KaitlinH@curvelake.ca
Ms.	Julie	Kapyrka	Lands Resource Consultation Liaison	Curve Lake First Nation	22 Winookeeda Road	Curve Lake	ON	K0L 1R0		JulieK@curvelake.ca
Chief	Laurie	Carr	Chief	Hiawatha First Nation	123 Paudash Street	Hiawatha	ON	K9J 0E6		chiefcarr@hiawathafn.ca
Mr.	Sean	Davison	Lands Resource Consultation Liaison	Hiawatha First Nation	197 Sopers Lane	Hiawatha	ON	K9J 0E6		sdavison@hiawathafn.ca
Mr.	Tom	Cowie	Lands Resource Consultation Liaison	Hiawatha First Nation	197 Sopers Lane	Hiawatha	ON	K9J 0E6		tcowie@hiawathafn.ca
Chief	Kelly	LaRocca	Chief	Mississaugas of Scugog Island First Nation	22521 Island Road	Port Perry	ON	L9L 1B6		klarocca@scugogfirstnation.com
Mr.	Dave	Mowat	Community Consultation Specialist	Mississaugas of Scugog Island First Nation	22521 Island Road	Port Perry	ON	L9L 1B6		dmowat@scugogfirstnation.com
Sir/Madam			Consultation Unit	Métis Nation of Ontario	Suite 1100 - 66 Slater Street	Ottawa	ON	K1P 5H1		consultations@metisnation.org
Ms.	Sandy	Mackenzie	Williams Treaties First Nations Claims Coordinator	Williams Treaties First Nations	8 Creswick Court	Barrie	ON	L4M 2S7		inquiries@williamstreatiesfirstnations.ca
Chief	Donna	Big Canoe	Chief	Georgina Island First Nation	R.R. #2 Box N-13	Sutton West	ON	L0E 1R0		donna.bigcanoe@georginaisland.com
Ms	Natasha	Charles	Community Consultation Worker	Georgina Island First Nation	R.R. #2 Box N-13	Sutton West	ON	L0E 1R0		natasha.charles@georginaisland.com
Chief	Ted	Williams	Chief	Chippewas of Rama	5884 Rama Rd., Suite 200	Rama	ON	L3V 6H6		chief@ramafirstnation.ca
Ms.	Sharday	James	Community Consultation Worker	Chippewas of Rama	5884 Rama Rd., Suite 200	Rama	ON	L3V 6H6		shardayj@ramafirstnation.ca
Chief	Guy	Monague	Chief	Beausoleil First Nation	11 O'Gemaa Miikaan	Christian Island	ON	L9M 0A9		bfnchief@chimnissing.ca; tanyaroote@chimnissing.ca
Ms.	Jane	Copegog	Lands Manager	Beausoleil First Nation	11 O'Gemaa Miikaan	Christian Island	ON	L9M 0A9		jcopegog@chimnissing.ca
Chief	R.Donald	Maracle	Chief	Mohawks of the Bay of Quinte	24 Meadow Dr	Tyendinaga Mohawk Territory	ON	K0K 1X0		rdonm@mbq-tmt.org
Ms.	Charlotte	Gurnsey	Consultation Coordinator	Mohawks of the Bay of Quinte	25 Meadow Dr	Tyendinaga Mohawk Territory	ON	K0K 1X1		consultation@mbq-tmt.org
Conservation Authority										
Ms.	Janet	Noyes	Manager, Development Services & Water Resources	Lower Trent Conservation	714 Murray Street, R.R.1	Trenton	ON	K8V 5P4	613-394-4829 x211	janet.noyes@ltc.on.ca
Ms.	Leah	Stephens	Environmental Planner/Regulations Officer	Lower Trent Conservation	714 Murray Street, R.R.1	Trenton	ON	K8V 5P4	613-394-4829 x 220	leah.stephens@ltc.on.ca
School Boards/Transportation										
Mr.	Sean	Monteith	Director of Education & Secretary of the Board	Hastings & Prince Edward District School Board	154 Ann Street	Belleville	ON	K8N 3L3	613-966-1170 x 62201	directors.office@hpedsb.on.ca
Mr.	David	DeSantis	Director of Education	Algonquin & Lakeshore Catholic District School Board	151 Dairy Avenue	Napanee	ON	K7R 4B2	613-354-6257 x 445	info@alcdsb.on.ca
Ms.	Mélanie	Reynolds	Director	École élémentaire catholique L'ENVOL	45 Catholic Elementary School , pr. Johnson	Trenton	ON	K8V 1A4	613-392-5590 x 24030	reynome@ecolecatholique.ca
Ms.	Robin	Bell	Principal	Murray Centennial Public School	654 County Rd 40	Trenton	ON	K8V 5P4	613-392-9238	robin_bell@kprdsb.ca
Mr.	Todd	Bishop	Vice-Principal	Murray Centennial Public School	654 County Rd 40	Trenton	ON	K8V 5P4	613-392-9238	todd_bishop@kprdsb.ca
Sir/Madam				Tri-Board Student Transportation Services	81 Dairy Avenue	Napanee	ON	K7R 1M5	613-354-1981	info@triboard.ca
Businesses										
Sir/Madam				Tab's Diner	944 Wooler Road	Trenton	ON	K8V 5P4	613-965-5858	
Sir/Madam				Ultramar/Soft Touch Car Wash	944 County Road 40	Trenton	ON	K8V 5P4	613-392-8678	
Sir/Madam				Stop & Shop Express	944 Wooler Road	Trenton	ON	K8V 5P4	613-392-8678	
Sir/Madam				D & D Automotive	83 Webber Road	Trenton	ON	K8V 5P4	613-965-4219	
Mr.	Rod	Forge		Forge Automotive	1029 County Road 40	Trenton	ON	K8V 5P4	613-392-3888	info@forgeautomotive.ca
Sir/Madam				Sills Argo Sales and Service	1074 County Road 40	Trenton	ON	K8V 5P4	613-992-3519	
Sir/Madam				Quinte Concrete Pumping Services	RR1 Stn Main	Trenton	ON	K8V 5P4	613-392-2038	
Mr.	Dan	Rathbun	Owner	Great Canadian Oil Change Trenton	6-470 2nd Dug Hill Rd	Trenton	ON	K8V 0B7	613-394-2585	
Sir/Madam				EB Games	470 2nd Dug Hill Road A	Trenton	ON	K8V 5P7	6130-394-0550	
Ms.	Lily	Flora		Global Pet Foods	3-470 2nd Dug Hill Road	Trenton	ON	K8V 0B7	613-392-9191	127gpf@gmail.com
Sir/Madam				Carter's OshKosh B'gosh	470 2nd Dug Hill Road	Trenton	ON	K8V 0B7	613-394-3185	
Sir/Madam				McDonald's Restaurant	470 2nd Dug Hill Road, RR#4	Trenton	ON	K8V 5P7	613-394-1414	
Sir/Madam				Walmart Trenton Supercentre Store #3178	470 2nd Dug Hill Road	Trenton	ON	K8V 5P7	613-394-2191	
				St. George's Cemetry	593 2nd Dugh Hill Road	Trenton	ON	K0K 1B0	613-394-4244	
Sir/Madam				Premier Precast	17240 Hwy 2 West	Trenton	ON	K8V 5P7	613-965-4390	premierprecast@gmail.com
Sir/Madam				Y Buy Nu Auto Sales	17236 Hwy 2	Trenton	ON	K8V 5P7	613-394-1514	
Sir/Madam				Canadian Pacific Railway	7550 Ogden Dale Road S.E.	Calgary	AB	T2C 4X9	1-888-333-6370	
Sir/Madam				Canadian National Railway	935 de La Gauchetière Street West	Montreal	QC	H3B 2M9	1-888-888-5909	
Public/Residents										
Direct mail to all homes/businesses/school from Telephone Road to Highway 2										
					865 County Road 40	Trenton	ON	K8V 5P7		
					863b County Road 40	Trenton	ON	K8V 5P7		
					859 County Road 40	Trenton	ON	K8V 5P7		
					841 County Road 40	Trenton	ON	K8V 5P7		
					829 County Road 40	Trenton	ON	K8V 5P7		
					644 County Road 40	Trenton	ON	K8V 5P7		
					632 County Road 40	Trenton	ON	K8V 5P7		
Utilities										
Utility Companies contacted on April 19th, 2021										

Notice of Study Commencement and Online Public Information Center Example

A Natural Attraction

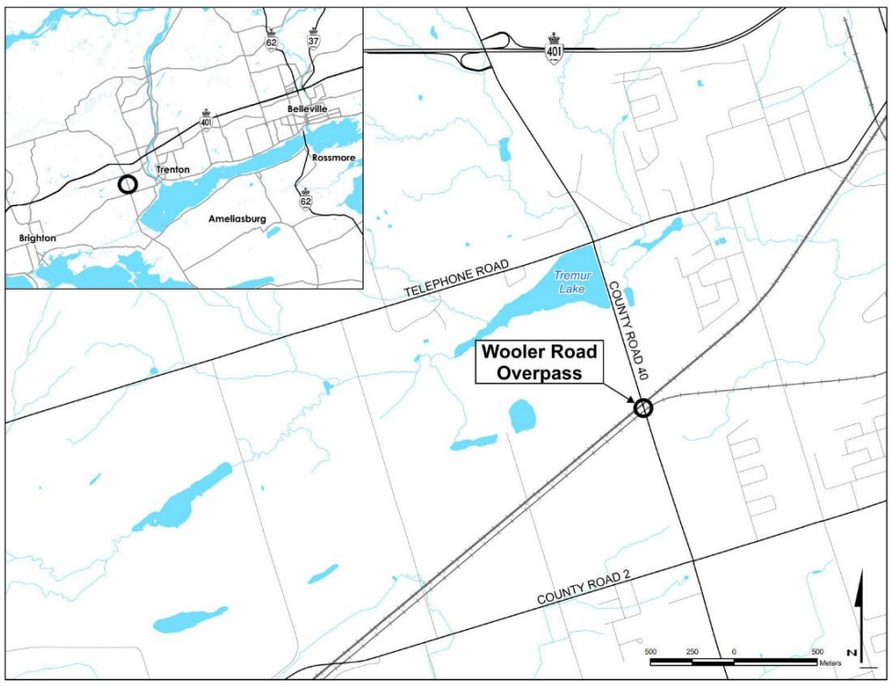
NOTICE OF STUDY COMMENCEMENT AND ONLINE PUBLIC INFORMATION CENTRE

WOOLER ROAD/COUNTY ROAD 40 CNR/CPR OVERPASS BRIDGE

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT (SCHEDULE B)

THE STUDY

The City of Quinte West is undertaking a Municipal Class Environmental Assessment (Class EA) study to identify, develop and implement a solution to address deficiencies noted in the Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge, located approximately 2.3 km south of Highway 401 and 950 m north of Highway 2.



THE PROCESS

The Class EA is being undertaken in accordance with the planning and design process for a Schedule "B" project as outlined in the Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011, 2015 and 2023), which is approved under the Ontario *Environmental Assessment Act.*

A key component of the Class EA will be consultation with interested stakeholders and community members, including public agencies and Indigenous communities. At the conclusion of the study, the EA process will be documented in a Project File, which will be made available for 30 calendar days for public review and comment.

PUBLIC INFORMATION CENTRE AND INVITATION FOR COMMENTS

The purpose of this Notice is to invite you to participate in an Online Public Information Centre (PIC) for this project. The Online PIC will present the study process, existing conditions, the technically preferred alternative and provide opportunity for public input and comments. The Online PIC materials can be accessed through the City of Quinte West website at www.quintewest.ca.

If you have any comments or would like additional information, please contact one of the following Project Team Members below:

Tim Colasante
The City of Quinte West
Manager Engineering
7 Creswell Drive, PO Box 490
Trenton, ON K8V 5R6
T – 613-392-2841 x. 4408
timc@quintewest.ca

Curtis Stewart, P. Eng
McIntosh Perry Consulting Engineers Ltd.
Project Manager
1329 Gardiners Rd #1,
Kingston, ON K7P 0L8
T – 289-351-0367
c.stewart@mcintoshperry.com

The Online PIC materials will be available for 2 weeks from **April 21st, 2023** to **May 5th, 2023.**

Personal information is collected under the authority of the *Environmental Assessment Act* and will be used in the development of a Municipal Class Environmental Assessment. Information collected will be used in accordance with the *Municipal Freedom of Information and Privacy Act*. With the exception of personal information, all comments will become part of the public record. If you have accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

McINTOSH PERRY

Online Public Information Center Presentation Boards

ONLINE PUBLIC OPEN HOUSE

SCHEDULE “B” MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT WOOLER ROAD CNR/CPR OVERPASS

April 21, 2023

McINTOSH PERRY

City of Quinte West

ONLINE PUBLIC OPEN HOUSE OBJECTIVES

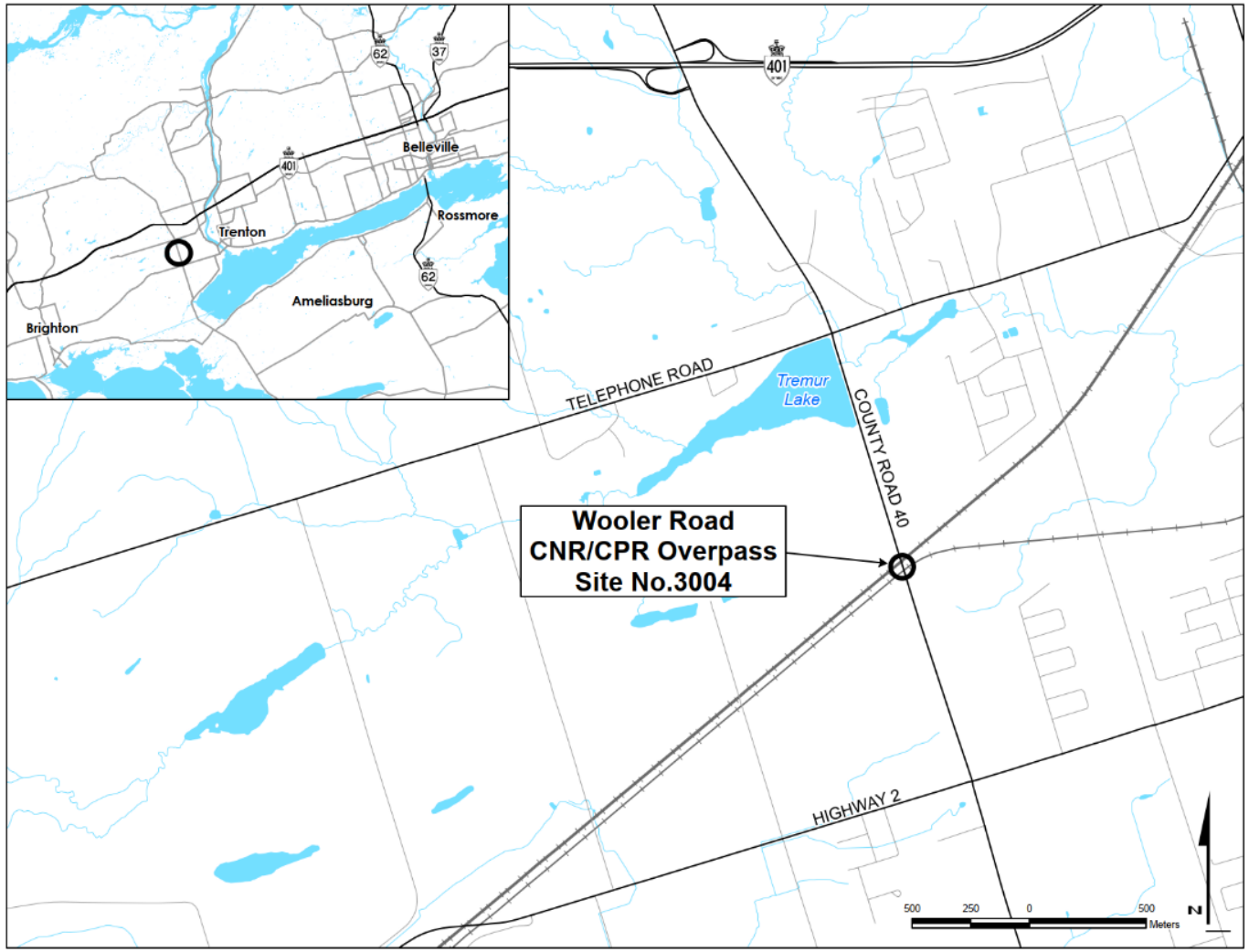
Thank you for your interest in the project. The purpose of this Online Public Open House is to provide the public and stakeholders with an introduction to the study process, existing conditions, alternative solutions and provide opportunity for input and comments.

Once you have reviewed the materials, please submit any comments or questions directly online, via email or by phone to one of the contacts listed at the end of the presentation by May 5, 2023. A member of the project team will respond to you directly.

1. Project Location and Description
2. Purpose of the Study
3. Municipal Class Environmental Assessment Process
4. Problem and Opportunity Statement
5. Alternative Solutions
6. Project Studies
7. Existing Conditions
8. Evaluation and Recommended Alternative Solution
9. Upcoming Consultation Opportunities

PROJECT STUDY AREA

The Wooler Road CNR/CPR Overpass is located in the formal municipality of Murray within the City of Quinte West. The bridge crosses over both the Canadian National Railway (CNR) and the Canadian Pacific Railway (CPR) at approximately 2.3 km south of Highway 401 and 950 m north of Highway 2.



STUDY PURPOSE

Based on the existing condition of the bridge, as documented in the Detailed Bridge Condition Survey Report (2020) and Ontario Structural Inspection Manual (OSIM) Inspection Report (2019), it was determined that the bridge requires rehabilitation and/or replacement.

The existing Wooler Road CNR/CPR Overpass is currently two lanes. The City of Quinte has requested to include considerations for the opportunity to widen the bridge foundation in anticipation of future widening to four lanes.

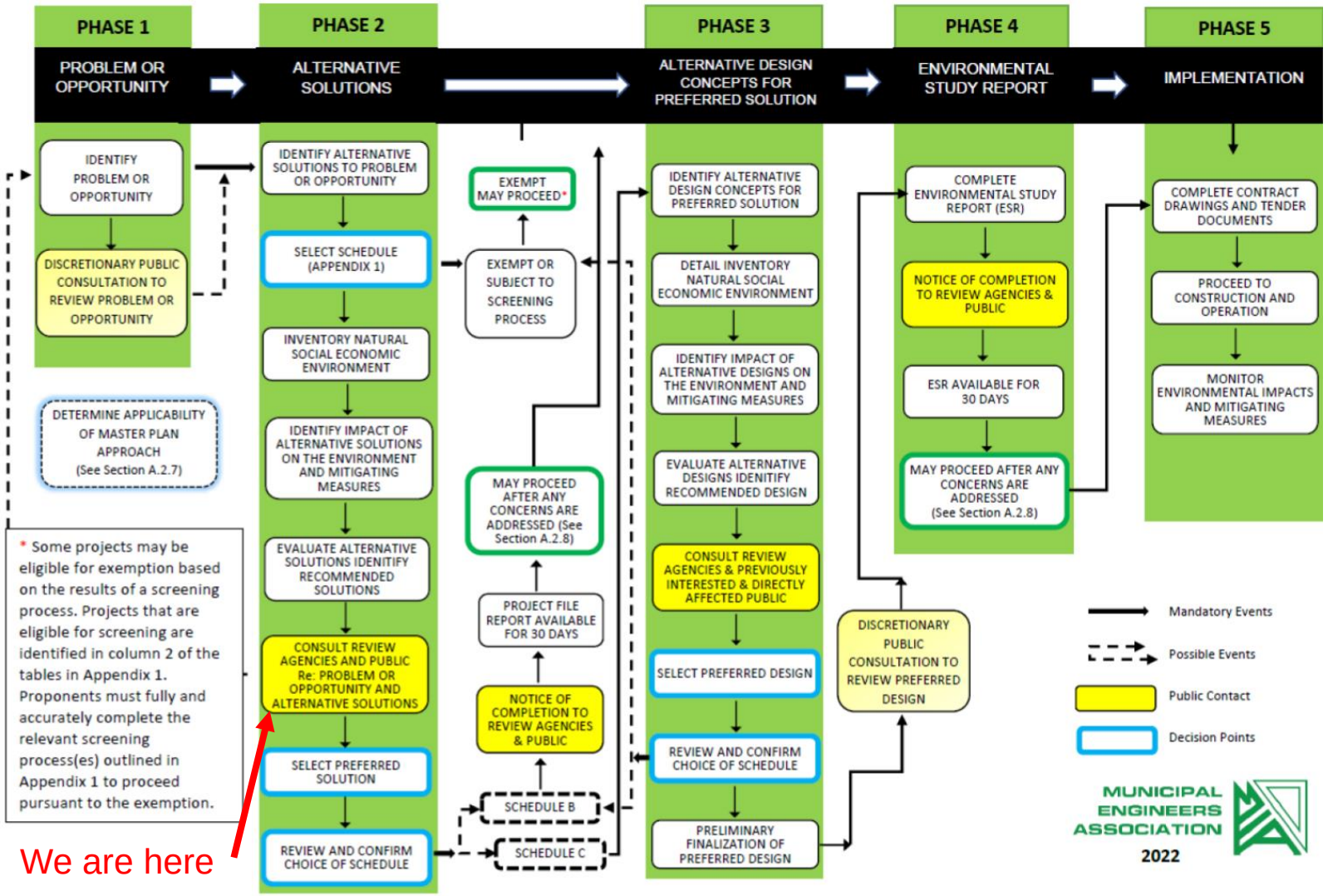
The City of Quinte West is undertaking this Schedule “B” Municipal Class Environmental Assessment Study to identify and evaluate alternative solutions to address the aging infrastructure and accommodate future growth.

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The Municipal Class Environmental Assessment (MCEA) is a process by which municipal infrastructure projects are planned in accordance with the *Environmental Assessment Act*. The MCEA gives due regard to protect the environment, identify and mitigate negative impacts, and involves consultation with affected stakeholders in the decision-making process.

Please visit:

https://municipalclassea.ca for more information on the MCEA Process.



PHASE 1 – PROBLEM/OPPORTUNITY STATEMENT

The Wooler Road CNR/CPR Overpass is in a state of deterioration and requires rehabilitation or replacement. The existing bridge is currently carrying two lanes, with no ability to widen to four lanes, and no capacity for active transportation facilities. Therefore, the City of Quinte West has the opportunity to identify and evaluate alternative solutions and determine a preferred bridge solution in accordance with the MCEA Process.

PHASE 2 – ALTERNATIVE SOLUTIONS TO THE PROBLEM/OPPORTUNITY STATEMENT

To address the Problem/Opportunity Statement, the following preliminary Alternative Solutions have been developed, which will be evaluated after appropriate studies and consultation have been completed:

Alternative 1: Do Nothing

Involves leaving the existing bridge in place, in its deteriorating condition. Through the MCEA process this alternative acts as a benchmark for the other Alternative Solutions.

Alternative 2: Concrete Overlay with Girder Rehabilitation

Superstructure rehabilitation including removal and repair of deteriorated asphalt and concrete, repairing girder ends, diaphragms and bearing seats, repair deck soffit, link slab construction at the piers, new concrete deck overhang, concrete overlay and installation of expansion joints at abutments. Existing substructure would be maintained and repaired.

Alternative 3: Deck Replacement with Girder Rehabilitation

Due to the large area of deck removals identified during structural assessment, the rehabilitation scope of Alternative 3 includes a full replacement of the existing deck with a new concrete deck. Existing substructure would be maintained and repaired.

Alternative 4: Full Superstructure Replacement

Replacement of full superstructure, including deck and girders. Existing substructure would be maintained and repaired.

Alternative 5: Like-for-like Full Structure Replacement

To ensure a consistent comparison among the rehabilitation alternatives, a like-for-like full structure replacement with new NU precast girders was considered.

PROJECT STUDIES

The following project studies have been undertaken within the Wooler Road CNR/CPR Overpass study area as part of this MCEA Study:

Geotechnical Investigations
- Geotechnical Investigations for soils information

Archaeological Assessment
- Stage 1 & 2 Archaeological Assessment

Natural Environment
- Terrestrial Ecosystem Review

Contaminant Waste
- Designated Substances Survey

Transportation and Traffic
- Transportation Study
- Construction Staging Review

Cultural Heritage Landscapes & Built Heritage Resources
- Cultural Heritage Checklist

Socio Economic Environment
- Public Consultation
- Land Use Review

Structural Assessment
- Review of Suitable Structural Alternatives
- Life Cycle Cost Analysis and Qualitative Evaluation of Alternatives

Drainage Investigations
- Hydraulic Analysis

EXISTING STRUCTURAL CONDITION

Structural Condition

- The existing structure was constructed in 1970
- Three equal span (22.067 m) simply supported concrete slab (178 mm thick) on AASHTO Type III precast prestressed concrete girder bridge, with a total span of 66.2 m.
- The structure has an overall width of 11.07 m and the roadway width between concrete curbs is 9.14 m. The bridge carries two 4.57 m wide lanes and 0.9 m concrete safety curbs with a steel railing system.
- The bridge is supported on reinforced concrete abutments and piers. The abutment is founded on steel H-piles and the piers are supported on spread footings.
- In 2006, Wooler Road was resurfaced, including asphalt paving over the expansion joints at the bridge abutment and pier joints. Otherwise, it does not appear that the structure has undergone any major structural rehabilitations.
- The Detailed Bridge Condition Survey Report (2020) Ontario Structural Inspection Manual (OSIM) inspection in 2019 determined that the bridge is in generally fair to poor condition and requires rehabilitation and/or replacement.

EXISTING TRAFFIC CONDITIONS

Year	Average Daily Traffic Forecasts	Level of Service
2021	10800	-
2023	11170	C
2028	12100	C
2033	13030	C
2043	14890	D

Existing Traffic and Operations

- Wooler Road, County Road 40, has a two-lane rural cross section and a posted speed limit of 80 km/h.
- Annual Daily Traffic data and projections were obtained through historical traffic data provided by the City, and data collected in summer 2021.
- Data showed 1.72% of annual traffic growth on Wooler Road.
- Data showed that 7% of the traffic on Wooler Road is made up of trucks and heavy vehicles.
- Operational analysis indicate that the existing Wooler Road corridor will continue to adequately serve future traffic forecasts beyond the 20+ year time frame.
- There are no active transportation facilities currently on Wooler Road.
- The City's Active Transportation Plan (2018) identifies this section of Wooler Road as a ***"Candidate Route" for a buffered paved shoulder*** to be phased in the long term, 20+ year time frame.
- 300 m to the south of the structure is an entrance to the Murray Centennial Public School
- 600 m to the north of the structure is an access road to Tremur Lake.
- Both approaches have a School Zone Maximum Speed When Flashing Sign, reducing the posted speed of Wooler Road to 60 km/h when flashing.

NATURAL ENVIRONMENT EXISTING CONDITIONS

Vegetation

- The study area is dominated by vegetation common to the Lake Simcoe-Rideau Ecoregion (Ecoregion 6E) of the Mixedwood Plains Ecozone.
- The majority of the vegetation to be impacted is dry-moist old field meadow, sumac cultural thickets and mixed forest in the laydown area. These areas do not comprise of sensitive vegetation communities, nor contain rare or SAR plant species.

Wildlife and Species at Risk

- The study area contains habitat that supports a variety of wildlife species characteristic of the Lake Simcoe-Rideau Ecoregion (Ecoregion 6E)
- No wildlife SAR were observed during the field investigations, however suitable habitat for the following wildlife SAR was observed within the study area: Monarch, Rusty-patched Bumble Bee, Blanding's Turtle, Midland Painted Turtle, Northern Map Turtle, Snapping Turtle (conservatively a travel corridor for all turtle species), Barn Swallow, Eastern Meadowlark, Golden Winged Warbler, Eastern Wood-Pewee, Northern Myotis, Little Brown Myotis and Tri-colored Bat.

Wetland Habitat and Designated Areas

- No major watercourses are present at the Wooler Road CNR/CPR Overpass. However, there is a small tributary of Mayhew Creek approximately 282 m SE of the railway overpass, flowing east-northeast.
- One unevaluated wetland (swamp) intersects with the northeastern border of the study area, according to LIO data. No PSWs exist within a 2 km radius from the study site.

SOCIAL/CULTURAL ENVIRONMENT EXISTING CONDITIONS

Archaeology

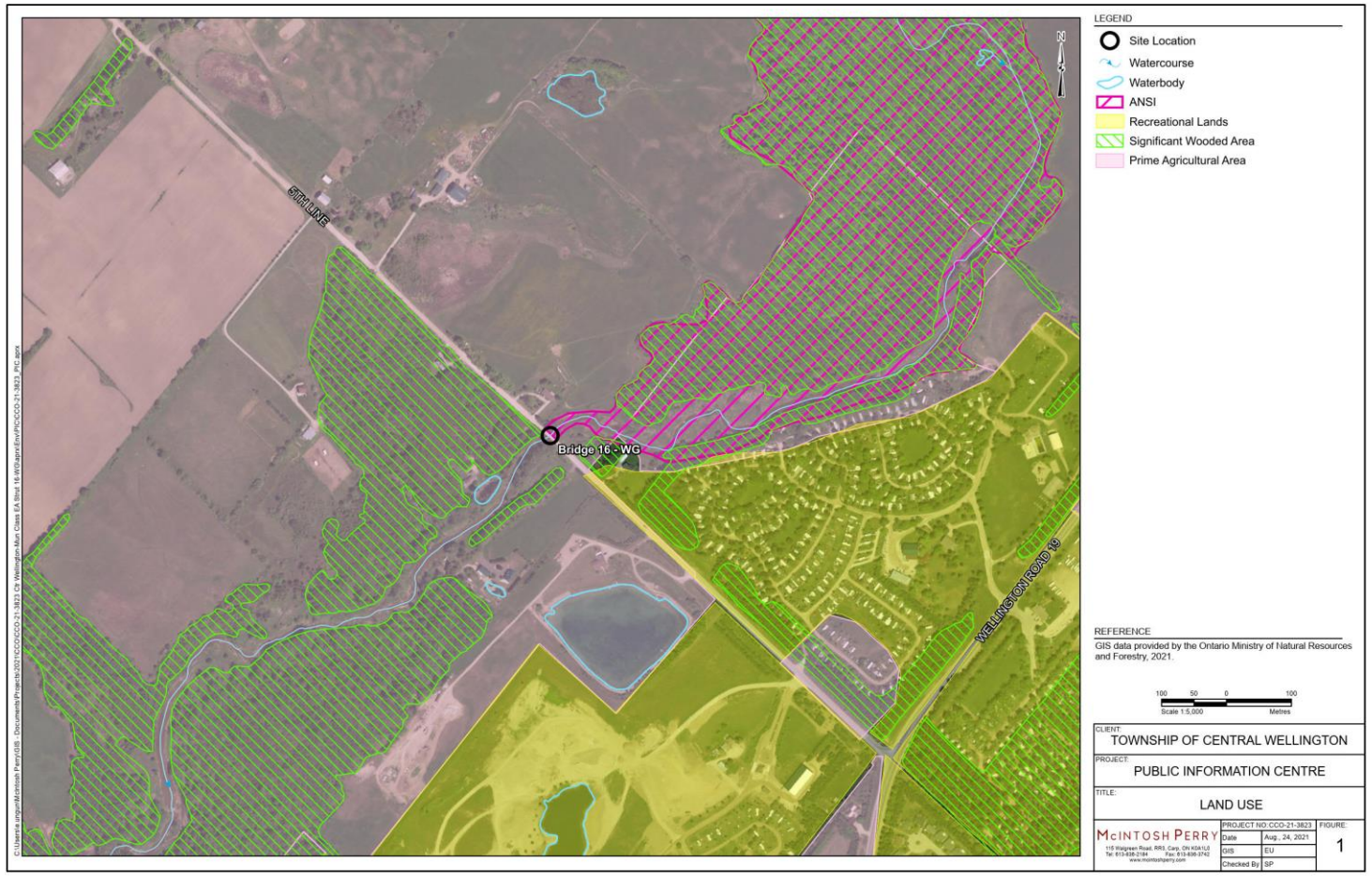
- A Stage 1 & 2 Archaeological Assessment identified no archaeological sites and concluded the study area does not warrant further archaeological assessment.

Cultural Heritage

- A MECP Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Assessment Checklist was completed.
- The checklist has determined that no Cultural Heritage Evaluation Report is required for the bridge rehabilitation, based on bridge style (Precast with concrete deck).

Land Use

- The lands adjacent to the structure consist primarily of agricultural and forested regions.
- The City of Quinte West Official Plan designates the areas within and directly adjacent to the study area as rural and agricultural areas, as well as urban planning districts.
- An entrance on Wooler Road to Murray Centennial Public School is located approximately 300 m south of the structure, and an access road to Tremur Lake is located approximately 600 m north of the structure.



EVALUATION CRITERIA

Transportation

- Traffic Operations
- Active Transportation
- Future Traffic Needs

Structural

- Safety Considerations
- Extension of Service Life
- Durability

Natural Environment

- Species at Risk (SAR)
- Environmentally Sensitive Areas
- Wildlife Habitats

Socio-Economic

- Land Use Impacts
- Archaeological, Built Heritage & Cultural Heritage Features

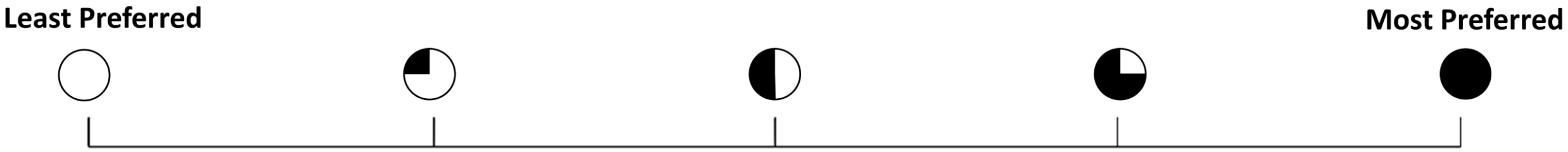
Construction

- Construction Duration
- Impacts of Construction

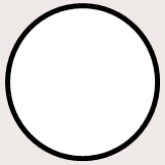
Cost

- Capital Costs
- Operational and Maintenance Costs

EVALUATION CRITERIA



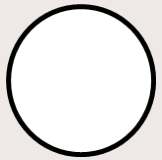
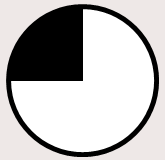
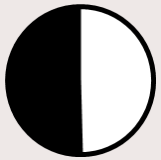
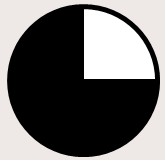
The purpose of this evaluation is to present the positive and negative impacts associated with the design alternatives in consideration of the criteria listed in the adjacent table. This evaluation is a relative comparison to be used to determine which alternative is preferred. Each criterion was given a score on a scale from least preferred (empty circle) to most preferred (solid circle).

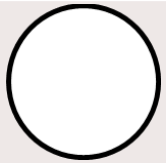


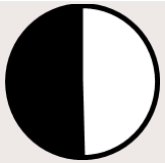
EVALUATION OF ALTERNATIVES

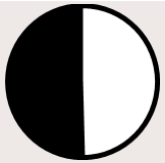
Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Transportation	• Meets current and projected traffic needs to the 20+ year time frame. • Unable to accommodate widening for planned active transportation infrastructure (i.e.. Buffered paved shoulder) • Unable to accommodate future traffic needs such as road widening to four lanes.	• Meets current and projected traffic needs to the 20+ year time frame. • Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. • May not meet requirements for a buffered paved shoulder. • Unable to accommodate future traffic needs such as road widening to four lanes.	• Meets current and projected traffic needs to the 20+ year time frame. • Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. • May not meet requirements for a buffered paved shoulder. • Unable to accommodate future traffic needs such as road widening to four lanes.	• Meets current and projected traffic needs to the 20+ year time frame. • Marginal widening possible to accommodate wider shoulders for active transportation infrastructure. • May not meet requirements for a buffered paved shoulder. • Unable to accommodated future traffic need such as road widening to four lanes.	• Meets current and projected traffic needs to the 20+ year time frame. • Able to accommodate widening for planned active transportation infrastructure. • Able to accommodate future traffic needs such as road widening to four lanes.
Evaluation	○	◔	◐	◐	●

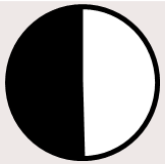
EVALUATION OF ALTERNATIVES

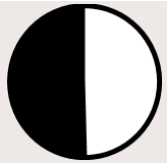
Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Structural	• Does not address current deterioration in order to extend the service life of the structure.	• Significant areas of the deck remain with high corrosion potential and chloride ingression. • Patching of girder ends is difficult due to limited. access and poor bond. • Rebuilding of bearing seats difficult with existing girders in place. • Durability is considered to be poor. • Risk of damage to existing girders.	• Full deck replacement to eliminate all chloride contamination in the deck. • Patching of girder ends difficult due to limited access and poor bond. • Rebuilding of bearing seats difficult with existing girders in place. • Durability is considered to be moderate. • Risk of damage to existing girders.	• Full deck and girder removal. • Easier access to abutment and bearing seat reconstruction. • Existing substructure will remain and require significant reconstruction. • The overall service life of the structure would only be 50 years. • Durability is considered to be moderate.	• Full structure removal. • Easier access and construction for the replacement structure. • Minimal future intervention aside from standard maintenance. • Replacement with integral abutments which can provide higher durability as it eliminates expansion joints. • Service life expected to be 75+ years. • Durability is considered to be good.
Evaluation					











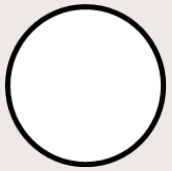
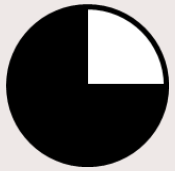
EVALUATION OF ALTERNATIVES

Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Natural Environment	• Continued deterioration of Wooler Road CNR/CPR Overpass may pose significant impacts to the natural environment. • Potential impacts to SAR can be mitigated. • No anticipated impacts to groundwater or surface water. • No anticipated climate change impacts.	• Moderate/temporary impacts to the natural environment during construction • Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. • Potential impacts to SAR can be mitigated. • No anticipated impacts to groundwater or surface water. • No anticipated climate change impacts.	• Moderate/temporary impacts to the natural environment during construction • Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. • Potential impacts to SAR can be mitigated. • No anticipated impacts to groundwater or surface water. • No anticipated climate change impacts.	• Moderate/temporary impacts to the natural environment during construction • Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. • Potential impacts to SAR can be mitigated. • No anticipated impacts to groundwater or surface water. • No anticipated climate change impacts.	• Moderate/temporary impacts to the natural environment during construction • Minor impacts to terrestrial wildlife may be required through vegetation removal activities for construction. • Potential Impacts to SAR can be mitigated. • No anticipated impacts to groundwater or surface water. • Increased greenhouse gas emissions may be incurred due to detours during construction. GHG emissions will ultimately be reduced due to less traffic congestion.
Evaluation	○	◐	◐	◐	◐

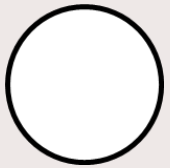
EVALUATION OF ALTERNATIVES

Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Socio-Economic	• Continued deterioration of Wooler Road CNR/CPR Overpass may pose a health and safety concerns, leading to eventual closure. • Operational issues for rail traffic due to potential debris and deterioration. • No anticipated cultural heritage impacts. • No anticipated impacts to archaeological resources. • No construction related impacts.	• Wooler Road CNR/CPR Overpass would remain open to the public. • No operational concerns for rail traffic. • No anticipated cultural heritage impacts. • No anticipated impacts to archaeological resources. • No construction related impacts. • Moderate construction related impacts anticipated. • Local residents may experience an increase in noise during the construction.	• Wooler Road CNR/CPR Overpass would remain open to the public. • No operational concerns for rail traffic. • No anticipated cultural heritage impacts. • No anticipated impacts to archaeological resources. • No construction related impacts. • Moderate construction related impacts anticipated. • Local residents may experience an increase in noise during the construction.	• Wooler Road CNR/CPR Overpass would remain open to the public. • No operational concerns for rail traffic. • No anticipated cultural heritage impacts. • No anticipated impacts to archaeological resources. • No construction related impacts. • Moderate construction related impacts anticipated. • Local residents may experience an increase in noise during the construction.	• Wooler Road CNR/CPR Overpass would remain open to the public. • No operational concerns for rail traffic. • No anticipated cultural heritage impacts. • No anticipated impacts to archaeological resources. • No construction related impacts. • Moderate construction related impacts anticipated. • Local residents may experience an increase in noise during the construction.
Evaluation	○	◐	◐	◐	●

EVALUATION OF ALTERNATIVES

Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Construction	• No construction is required.	• Construction duration is anticipated to be approximately 150 days over 2 seasons. • Traffic to be reduced to a single lane managed with portable temporary traffic signals. • Additional delay and queueing expected for the public.	• Construction duration is anticipated to be approximately 150 days over 2 seasons. • Traffic to be reduced to a single lane managed with portable temporary traffic signals. • Additional delay and queueing expected for the public.	• Construction duration is anticipated to be approximately 135 days over 2 seasons. • Traffic to be reduced to a single lane managed with portable temporary traffic signals. • Additional delay and queueing expected for the public.	• Construction duration is anticipated to be approximately 205 days over 2 seasons. • Traffic to be reduced to a single lane managed with portable temporary traffic signals. • Additional delay and queueing expected for the public.
Evaluation					

EVALUATION OF ALTERNATIVES

Criteria	Alternative 1: Do Nothing	Alternative 2: Concrete Overlay with Girder Rehabilitation	Alternative 3: Deck Replacement with Girder Rehabilitation	Alternative 4: Full Superstructure Replacement	Alternative 5: Like-for-like Full Structure Replacement
Cost	• No cost, due to no proposed works.	• Lowest capital costs due to minimal project scope. • Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	• Second lowest capital costs due to minimal project scope. • Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	• Second highest capital costs due to more detailed project scope relative to Alternatives 2 and 3. • Life cycle cost, including operational and maintenance costs are high when future 4-lane widening is anticipated in 10-20 years.	• Highest capital costs due to largest project scope. • Life cycle cost, including operational and maintenance costs are the lowest when future 4-lane widening is anticipated in 10-20 years.
Evaluation					

EVALUATION SUMMARY

Least Preferred ○ ◔ ◑ ◕ ● **Most Preferred**

Evaluation Criteria	Alternative Design Concept 1	Alternative Design Concept 2	Alternative Design Concept 3	Alternative Design Concept 4	Alternative Design Concept 5
Transportation	○	◔	◑	◑	●
Structural	○	◔	◑	◕	●
Natural Environment	○	◑	◑	◑	◑
Socio-Cultural Environment	○	◑	◑	◑	●
Construction	○	◑	◑	●	◕
Cost	○	◑	◑	◑	●
Summary					Technically Preferred Alternative

TECHNICALLY PREFERRED ALTERNATIVE

The Technically Preferred Alternative Solution to the Problem/Opportunity Statement is Alternative 5 – Like-for-like Full Structure Replacement of the Wooler Road CNR/CPR Overpass in the current location.

The key benefits of the Recommended Alternative are:

- Low engineering risks as all bridge components would be new, with an anticipated service life of approximately 75 years.
- The new bridge would be constructed to accommodate future widening and increased active transportation facilities.
- Lowest life cycle cost
- Minimizes future maintenance interventions

Anticipated impacts and mitigation of the Recommended Alternative are:

- During construction, Wooler Road will be reduced to single lane of traffic and use a one-lane, two-way operation managed with the use of portable temporary traffic signals. The public can expect to experience delays and queueing on Wooler Road during construction.
- Any wildlife and vegetation, including SAR that may be disturbed during construction will be considered and mitigation for migratory bird nesting window restrictions, reestablishment of vegetation removal areas, etc. will be included in the Contract Documents and adhered to by the Contractor.
- The Contractor will be required to carry out activities in a manner that minimizes noise levels.

UPCOMING CONSULTATION OPPORTUNITIES

The following consultation is being conducted as part of this MCEA Study:

Consultation	Timeline
Notice of Online Public Open House mailout and advertisement on the City of Quinte West's website.	April 21, 2023
Online Public Open House	April 21, 2023 to May 5, 2023
Advertise Project File Report for a 30-day public review and comment period	May 14, 2023

Following the Project File Report 30-day public review and comment period, if there are no outstanding comments that need to be addressed, the project will proceed to Detail Design and Construction. Timing of construction is to be determined pending funding and approvals.

IF YOU WOULD LIKE MORE INFORMATION, PLEASE CONTACT:

Mr. Curtis Stewart, P.Eng.
Consultant Project Manager
McIntosh Perry Consulting Engineers
Tel: 1-289-351-0367
Email: c.stewart@mcintoshperry.com

Mr. Tim Colasante
Manager of Engineering
City of Quinte West
Tel: 613-392-2841 x4408
Email: timc@quintewest.ca

Please submit any questions or comments directly online, email or by phone to the contacts listed above by May 5, 2023.

Thank you for participating in the Online Public Open House. Information is being collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record. If you have accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

Consultation Comments/Responses

Lauren Walker

From: Williams, Ryan - M.P. <ryan.williams@parl.gc.ca>
Sent: April 21, 2023 2:18 PM
To: Lauren Walker
Subject: RE: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge

> You don't often get email from ryan.williams@parl.gc.ca. Learn why this is important

Lauren,

Thank you for your email. I have passed the information on to MP Williams.

HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

The office of Ryan Williams
Member of Parliament
Bay of Quinte

Phone: 613-969-3300
Email: ryan.williams@parl.gc.ca
250 Sidney Street
Belleville, On
K8P 3Z3

From: Lauren Walker <l.walker@mcintoshperry.com>
Sent: April 21, 2023 10:17 AM
To: Tim Colasante <timc@quintewest.ca>; Curtis Stewart <c.stewart@mcintoshperry.com>; Nathan Farrell <n.farrell@mcintoshperry.com>
Cc: [redacted]
Subject: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge

Good afternoon,

The City of Quinte West is undertaking a Municipal Class Environmental Assessment (Class EA) study to identify, develop and implement a solution to address deficiencies noted in the Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge, located approximately 2.3 km south of Highway 401 and 950 m north of Highway 2. Study details and the study area are available in the attached notice.

The Class EA is being undertaken in accordance with the planning and design process for a Schedule "B" project as outlined in the Municipal Class Environmental Assessment (MCEA). The purpose of the attached notice is to invite you to participate in an Online Public Information Centre (PIC) for this project. The Online PIC will present the study process, existing conditions, the technically preferred alternative and provide opportunity for public input and comments. The Online PIC materials can be accessed through the City of Quinte West website at www.quintewest.ca.

If you have any comments or questions regarding this study, please contact one of the project team members noted in the attached notice by **May 5th, 2023.**

Regards,

Lauren Walker

Environmental Planner/Cultural Heritage Lead
C. 226.791.2070
l.walker@mcintoshperry.com | www.mcintoshperry.com

McINTOSH PERRY

Turning Possibilities Into Reality

Lauren Walker

Environmental Planner/Cultural Heritage Lead
C. 226.791.2070
l.walker@mcintoshperry.com | www.mcintoshperry.com

McINTOSH PERRY

Turning Possibilities Into Reality

Lauren Walker

From: Ashley Anastasio <ashley.anastasio@ltc.on.ca>
Sent: May 3, 2023 3:40 PM
To: Lauren Walker
Subject: Re: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge
Attachments: PL-23-068.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Lauren,

Thank you for circulating LTC on this Municipal Class EA. We note that there are unevaluated wetlands and field-verified wetlands in the subject area, as well as a tributary of Mayhew Creek approximately 350 meters from the overpass. Our mapping is attached for your reference.

Please continue to include us on communications regarding this project.

LTC File: PL-23-068

Warm regards,

Ashley Anastasio, B.A., BURPl. (*Pronoun: she/her*)
Environmental Planner
Lower Trent Region Conservation Authority
714 Murray Street, R.R. #1, Trenton, ON K8V ON1
Tel: 613-394-3915 ext. 220 | Email: ashley.anastasio@ltc.on.ca | www: LTC.on.ca

The Lower Trent Conservation watershed is located on the traditional territory of the Anishnabek, Huron-Wendat, and Haudenosaunee First Nations, and within the context of the Williams Treaty.

****COVID-19 Notice**: Our office is now open. We encourage the public to make appointments with staff members prior to arrival. Please note that masks are required to enter the building.

From: Lauren Walker <l.walker@mcintoshperry.com>
Sent: Friday, April 21, 2023 10:17 AM
To: Tim Colasante <timc@quintewest.ca>; Curtis Stewart <c.stewart@mcintoshperry.com>; Nathan Farrell <n.farrell@mcintoshperry.com>
Cc: [redacted]

[redacted]

Subject: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge

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If you have any comments or questions regarding this study, please contact one of the project team members noted in the attached notice by **May 5th, 2023.**

Regards,

Lauren Walker
Environmental Planner/Cultural Heritage Lead
C. 226.791.2070
l.walker@mcintoshperry.com | www.mcintoshperry.com

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Turning Possibilities Into Reality

CANADA BEST MANAGED COMPANIES | Platinum member

PL-23-068

Municipal Class EA
County Road 40 CNR Overpass
Quinte West, Murray
Concession 1, Part Lots 8 & 9

Legend

O.Reg. 163/06 Screening Area

Parcels

Water

Stream

Virtual Flow Connector

Wetlands (MNRF)

Unevaluated wetland

Evaluated wetland (PSW)

Evaluated wetland (non-PSW)

Field Verified Wetland

Yes (Present)

No (Not Present)

Flood & Erosion Lines

Floodlines

0 87.5 175 350
Metres

Map produced by Lower Trent Conservation

Note: Property lines shown on this map are approximate only and may be an inaccurate representation of the legal property limits. A legal survey is required to define the legal property limits.

LOWER TRENT CONSERVATION

User: planning2 May 3, 2023 3:21 PM

Lauren Walker

From: Tom Cowie <tcowie@hiawathafn.ca>
Sent: April 21, 2023 11:10 AM
To: Lauren Walker
Cc: Sean Davison
Subject: RE: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge

Aaniin Lauren,

Chi miigwetch for the update on this project. If we have any questions or concerns we will contact your office.

Gichi manaadendamowin

Tom Cowie

Tom Cowie
Lands/Resources Consultation
Hiawatha First Nation
431 Hiawatha Line,
Hiawatha, On
K9J 0E6
705 295-4421 Ext. 216
Email tcowie@hiawathan.ca

We, the Michi Saagiig of Hiawatha First Nation, are a vibrant, proud, independent and healthy people balanced in the richness of our culture and traditional way of life

---

From: Lauren Walker <l.walker@mcintoshperry.com>
Sent: Friday, April 21, 2023 10:17 AM
To: Tim Colasante <timc@quintewest.ca>; Curtis Stewart <c.stewart@mcintoshperry.com>; Nathan Farrell <n.farrell@mcintoshperry.com>
Cc: catherine.warren@ontario.ca; Barboza, Karla (MTCS) <karla.barboza@ontario.ca>; jessica.hill2@ontario.ca; tod[redacted]

Subject: Notice of Study Commencement and Online Public Information Centre - Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge

Good afternoon,

The City of Quinte West is undertaking a Municipal Class Environmental Assessment (Class EA) study to identify, develop and implement a solution to address deficiencies noted in the Wooler Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge, located approximately 2.3 km south of Highway 401 and 950 m north of Highway 2. Study details and the study area are available in the attached notice.

The Class EA is being undertaken in accordance with the planning and design process for a Schedule "B" project as outlined in the Municipal Class Environmental Assessment (MCEA). The purpose of the attached notice is to invite you to participate in an Online Public Information Centre (PIC) for this project. The Online PIC will present the study process, existing conditions, the technically preferred alternative and provide opportunity for public input and comments. The Online PIC materials can be accessed through the City of Quinte West website at www.quintewest.ca.

If you have any comments or questions regarding this study, please contact one of the project team members noted in the attached notice by **May 5th, 2023.**

Regards,

Lauren Walker
Environmental Planner/Cultural Heritage Lead
C. 226.791.2070
l.walker@mcintoshperry.com | www.mcintoshperry.com

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McINTOSH PERRY

Turning Possibilities Into Reality

Lauren Walker

From: Curtis Stewart
Sent: May 4, 2023 4:30 PM
To: Lauren Walker; Nathan Farrell
Cc: Joel Covert
Subject: FW: NOTICE OF STUDY COMMENCEMENT AND PIC - WOOLER ROAD/COUNTY ROAD 40 CNR/CPR OVERPASS BRIDGE
Attachments: Supporting Attachment - Proponent's Intro to Delegation of Procedural Aspects of Consultation with Aboriginal Communities.docx; Supporting Attachment - Species at Risk Proponents Guide to Preliminary Screening (Draft May 2019).pdf; fjo_MEA_City of Quinte West_WoolerRd_CNRCPR_Overpass _SchedB_NOC_Response.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Curtis Stewart, P.Eng.
Manager, Transportation Structures
T. 289.351.0367 | **C.** 905.802.2814
c.stewart@mcintoshperry.com | www.mcintoshperry.com

McINTOSH PERRY
Turning Possibilities Into Reality

From: Orpana, Jon (MECP) <Jon.Orpana@ontario.ca>
Sent: May 4, 2023 4:26 PM
To: Tim Colasante <timc@quintewest.ca>; Curtis Stewart <c.stewart@mcintoshperry.com>
Cc: Redmond, Courtney (MECP) <Courtney.Redmond@Ontario.ca>
Subject: NOTICE OF STUDY COMMENCEMENT AND PIC - WOOLER ROAD/COUNTY ROAD 40 CNR/CPR OVERPASS BRIDGE

Dear Mr. Tim Colasante,

Please find MECP's preliminary comments on the above mentioned file.

In addition, the letter contains principal indigenous communities for consultation purposes in addition to our Areas of Interest attachment which has various resources and hyperlinks for your consideration to assist you in your project.

Also attached are some resources regarding Species At Risk and a Proponents Intro to Delegation of Procedural Aspects of Consultation with Aboriginal Communities.

Regards,

Jon

Jon K. Orpana hear name
Regional Environmental Planner

Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
Kingston Regional Office
PO Box 22032, 1259 Gardiners Road
Kingston, Ontario
K7M 8S5

Phone: (613) 548-6918
Fax: (613) 548-6908
Email: jon.orpana@ontario.ca

Client's Guide to Preliminary Screening for Species at Risk

Ministry of the Environment, Conservation and Parks

Species at Risk Branch, Permissions and Compliance

DRAFT - May 2019

Table of Contents

1.0 Purpose, Scope, Background and Context

1.1 Purpose of this Guide

This guide has been created to:

- help clients better understand their obligation to gather information and complete a preliminary screening for species at risk before contacting the ministry,
- outline guidance and advice clients can expect to receive from the ministry at the preliminary screening stage,
- help clients understand how they can gather information about species at risk by accessing publicly available information housed by the Government of Ontario, and
- provide a list of other potential sources of species at risk information that exist outside the Government of Ontario.

It remains the client's responsibility to:

- carry out a preliminary screening for their projects,
- obtain best available information from all applicable information sources,
- conduct any necessary field studies or inventories to identify and confirm the presence or absence of species at risk or their habitat,
- consider any potential impacts to species at risk that a proposed activity might cause, and
- comply with the *Endangered Species Act* (ESA).

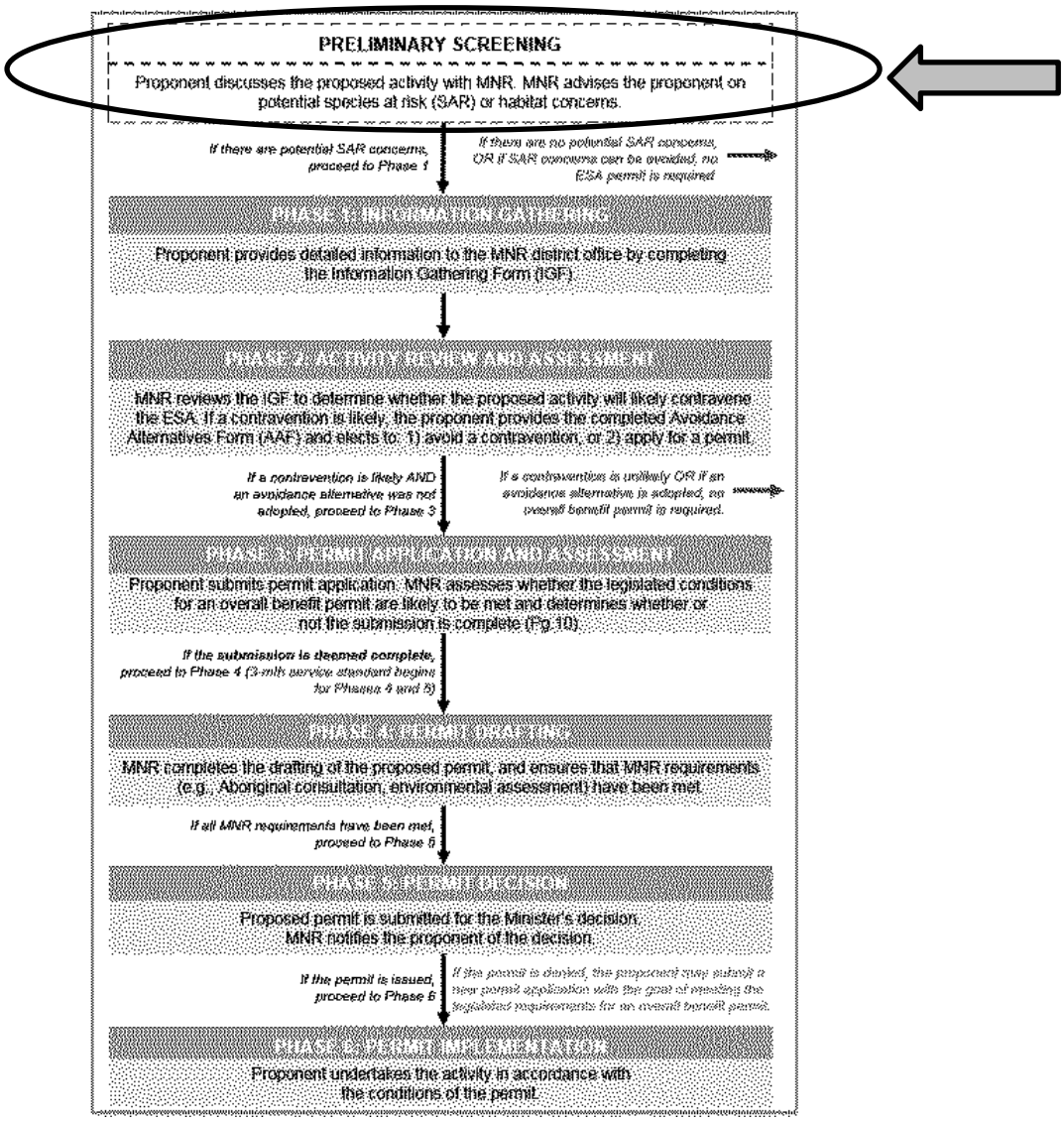
To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide, at a minimum, prior to contacting Government of Ontario ministry offices for further information or advice.

1.2 Scope

This guide is a resource for clients seeking to understand if their activity is likely to impact species at risk or if they are likely to trigger the need for an authorization under the ESA. It is not intended to circumvent any detailed site surveys that may be necessary to document species at risk or their habitat nor to circumvent the need to assess the impacts of a proposed activity on species at risk or their habitat. This guide is not an exhaustive list of available information sources for any given area as the availability of information on species at risk and their habitat varies across the province. This guide is intended to support projects and activities carried out on Crown and private land, by private landowners, businesses, other provincial ministries and agencies, or municipal government.

1.3 Background and Context

To receive advice on their proposed activity, clients must first determine whether any species at risk or their habitat exist or are likely to exist at or near their proposed activity, and whether their proposed activity is likely to contravene the ESA. Once this step is complete, clients may contact the ministry at SAROntario@ontario.ca to discuss the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. At this stage, the ministry can provide advice and guidance to the client about potential species at risk or habitat concerns, measures that the client is considering to avoid adverse effects on species at risk or their habitat and whether additional field surveys are advisable. This is referred to as the "Preliminary Screening" stage. For more information on additional phases in the diagram below, please refer to the *Endangered Species Act Submission Standards for Activity Review and 17(2)(c) Overall Benefit Permits* policy available online at https://www.ontario.ca/page/species-risk-overall-benefit-permits



2.0 Roles and Responsibilities

To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide prior to contacting Government of Ontario ministry offices for further information or advice.

Step 1: Client seeks information regarding species at risk or their habitat that exist, or are likely to exist, at or near their proposed activity by referring to all applicable information sources identified in this guide.

Step 2: Client reviews and consider guidance on whether their proposed activity is likely to contravene the ESA (see section 3.4 of this guide for guidance on what to consider).

Step 3: Client gathers information identified in the checklist in section 4 of this guide.

Step 4: Client contacts the ministry at SAROntario@ontario.ca to discuss their preliminary screening. Ministry staff will ask the client questions about the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. Ministry staff will also ask the client for their interpretation of the impacts of their activity on species at risk or their habitat as well as measures the client has considered to avoid any adverse impacts.

Step 5: Ministry staff will provide advice on next steps.

Option A: Ministry staff may advise the client they can proceed with their activity without an authorization under the ESA where the ministry is confident that:

- no protected species at risk or habitats are likely to be present at or near the proposed location of the activity; or
- protected species at risk or habitats are known to be present but the activity is not likely to contravene the ESA; or
- through the adoption of avoidance measures, the modified activity is not likely to contravene the ESA.

Option B: Ministry staff may advise the client to proceed to Phase 1 of the overall benefit permitting process (i.e. Information Gathering in the previous diagram), where:

- there is uncertainty as to whether any protected species at risk or habitats are present at or near the proposed location of the activity; or
- the potential impacts of the proposed activity are uncertain; or
- ministry staff anticipate the proposed activity is likely to contravene the ESA.

3.0 Information Sources

Land Information Ontario (LIO) and the Natural Heritage Information Centre (NHIC) maintain and provide information about species at risk, as well as related information about fisheries, wildlife, crown lands, protected lands and more. This information is made available to organizations, private individuals, consultants, and developers through online sources and is often considered under various pieces of legislation or as part of regulatory approvals and planning processes.

The information available from LIO or NHIC and the sources listed in this guide should not be considered as a substitute for site visits and appropriate field surveys. Generally, this information can be regarded as a starting point from which to conduct further field surveys, if needed. While this data represents best available current information, it is important to note that a lack of information for a site does not mean that species at risk or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in more remote parts of the province. The absence of species at risk location data at or near your site does not necessarily mean no species at risk are present at that location. On-site assessments can better verify site conditions, identify and confirm presence of species at risk and/or their habitats.

Information on the location (i.e. observations and occurrences) of species at risk is considered sensitive and therefore publicly available only on a 1km square grid as opposed to as a detailed point on a map. This generalized information can help you understand which species at risk are in the general vicinity of your proposed activity and can help inform field level studies you may want to undertake to confirm the presence, or absence of species at risk at or near your site.

Should you require specific and detailed information pertaining to species at risk observations and occurrences at or near your site on a finer geographic scale; you will be required to demonstrate your need to access this information, to complete data sensitivity training and to obtain a Sensitive Data Use License from the NHIC. Information on how to obtain a license can be found online at https://www.ontario.ca/page/get-natural-heritage-information.

Many organizations (e.g. other Ontario ministries, municipalities, conservation authorities) have ongoing licensing to access this data so be sure to check if your organization has this access and consult this data as part of your preliminary screening if your organization already has a license.

3.1 Make a Map: Natural Heritage Areas

The Make a Natural Heritage Area Map (available online at http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US provides public access to natural heritage information, including species at risk, without the user needing to have Geographic Information System (GIS) capability. It allows users to view and identify generalized species at risk information, mark areas of interest, and create and print a custom map directly from the web application. The tool also shows topographic information such as roads, rivers, contours and municipal boundaries.

Users are advised that sensitive information has been removed from the natural areas dataset and the occurrences of species at risk has been generalized to a 1-kilometre grid to mitigate the risks to the species (e.g. illegal harvest, habitat disturbance, poaching).

The web-based mapping tool displays natural heritage data, including:

- Generalized Species at risk occurrence data (based on a 1-km square grid),
- Natural Heritage Information Centre data.

Data cannot be downloaded directly from this web map; however, information included in this application is available digitally through Land Information Ontario (LIO) at https://www.ontario.ca/page/land-information-ontario.

3.2 Land Information Ontario (LIO)

Most natural heritage data is publicly available. This data is managed in a large provincial corporate database called the LIO Warehouse and can be accessed online through the LIO Metadata Management Tool at https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home. This tool provides descriptive information about the characteristics, quality and context of the data. Publicly available geospatial data can be downloaded directly from this site.

While most data are publicly available, some data may be considered highly sensitive (i.e. nursery areas for fish, species at risk observations) and as such, access to some data maybe restricted.

3.3 Additional Species at Risk Information Sources

- The Breeding Bird Atlas can be accessed online at http://www.birdsontario.org/atlas/index.jsp?lang=en
- eBird can be accessed online at https://ebird.org/home
- iNaturalist can be accessed online at https://www.inaturalist.org/
- The Ontario Reptile and Amphibian Atlas can be accessed online at https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas
- Your local Conservation Authority. Information to help you find your local Conservation Authority can be accessed online at https://conservationontario.ca/conservation-authorities/find-a-conservation-authority/

  Local naturalist groups or other similar community-based organizations
- Local Indigenous communities
- Local land trusts or other similar Environmental Non-Government Organizations
- Field level studies to identify if species at risk, or their habitat, are likely present or absent at or near the site.
- When an activity is proposed within one of the continuous caribou ranges, please be sure to consider the caribou Range Management Policy. This policy includes figures and maps of the continuous caribou range, can be found online at https://www.ontario.ca/page/range-management-policy-support-woodland-caribou-conservation-and-recovery

3.4 Information Sources to Support Impact Assessments

- Guidance to help you understand if your activity is likely to adversely impact species at risk or their habitat can be found online at https://www.ontario.ca/page/policy-guidance-harm-and-harass-under-endangered-species-act and https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act
- A list of species at risk in Ontario is available online at https://www.ontario.ca/page/species-risk-ontario. On this webpage, you can find out more about each species, including where is lives, what threatens it and any specific habitat protections that apply to it by clicking on the photo of the species.

4.0 Check-List

Please feel free to use the check list below to help you confirm you have explored all applicable information sources and to support your discussion with Ministry staff at the preliminary screening stage.

- ✓ Land Information Ontario (LIO)
- ✓ Natural Heritage Information Centre (NHIC)
- ✓ The Breeding Bird Atlas
- ✓ eBird
- ✓ iNaturalist
- ✓ Ontario Reptile and Amphibian Atlas
- ✓ List Conservation Authorities you contacted:_____

  _____

- ✓ List local naturalist groups you contacted:_____

  _____

- ✓ List local Indigenous communities you contacted:_____

  _____

- ✓ List any other local land trusts or Environmental Non-Government Organizations you contacted:_____

  _____

- ✓ List and field studies that were conducted to identify species at risk, or their habitat, likely to be present or absent at or near the site: _____

  _____

- ✓ List what you think the likely impacts of your activity are on species at risk and their habitat (e.g. damage or destruction of habitat, killing, harming or harassing species at risk):_____

  _____

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

May 4, 2023

City of Quinte West

Attention: Tim Colasante, P.Eng
Manager Engineering
Email: timc@quintewest.ca

BY EMAIL ONLY

Reg: **WOOLER ROAD/COUNTY ROAD 40 CNR/CPR OVERPASS BRIDGE-Schedule B Municipal Class Environmental Assessment Notice of Commencement and Online Public Information Centre Response**

Dear Mr. Tim Colasante,

This letter is in response to the Notice of Commencement for the above noted project, received by email April 21. 2023. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Proponent has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Class Environmental Assessment (Class EA) as Amended – 2023.

The Study

The City of Quinte West is undertaking a Municipal Class Environmental Assessment (Class EA) study to identify, develop and implement a solution to address deficiencies noted in the Wooler

Road (County Road 40) Canadian National Railway (CNR)/ Canadian Pacific Railway (CPR) Overpass Bridge, located approximately 2.3 km south of Highway 401 and 950 m north of Highway 2.

Process

The Class EA is being undertaken in accordance with the planning and design process for a Schedule "B" project as outlined in the Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011, 2015 and 2023), which is approved under the Ontario Environmental Assessment Act.

A key component of the Class EA will be consultation with interested stakeholders and community members, including public agencies and Indigenous communities. At the conclusion of the study, the EA process will be documented in a Project File, which will be made available for 30 calendar days for public review and comment.

MECP Areas of Interest

The **updated (February 2021)** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. **Further information is provided at the end of the Areas of Interest document relating to recent changes to the Environmental Assessment Act through Bill 197, Covid-19 Economic Recovery Act 2020.**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project**, the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project.

- **Alderville First Nation**
- **Curve Lake First Nation**
- **Hiawatha First Nation**
- **Mississaugas of Scugog Island First Nation**

For the above Williams Treaties communities, please cc Karry Sandy McKenzie, William Treaties First Nations Process Co-ordinator, inquiries@williamstreatiesfirstnations.ca

- **Kawartha Nishnawbe**
- **Mohawks of the Bay of Quinte**

If the proponent has undertaken archeological studies and are required to undertake any work related to archeological resources, they should also include:

- **Huron-Wendat**

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process". Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information, including the MECP's expectations for EA report documentation related to consultation with communities.

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances subsequent to initial discussions with the communities identified by the MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Section 16 Order request is expected on the basis of impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

A copy of the of the project file should be made available to me when it is complete along with the notice of completion, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Eastern Region EA notification email account (eanotification.eregion@ontario.ca) after the draft report is reviewed and finalized.

Should you or any members of your project team have any questions regarding the material above, please contact me at jon.orpana@ontario.ca.

Sincerely,

Jon Orpana
Regional Environmental Planner – Eastern Region

Cc:

Courtney Redmond, Compliance Supervisor,
MECP Peterborough District Office
courtney.redmond@ontario.ca

Curtis Stewart, P. Eng.
McIntosh Perry Consulting Engineers Ltd.
c.stewart@mcintoshperry.com

Encl. Areas of Interest

AREAS OF INTEREST (v. August 2022)

It is suggested that you check off each section after you have considered / addressed it.

- ☐ **Planning and Policy**

- **Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.**
    - **Projects located in MECP Central, Eastern or West Central Region may be subject to A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020).**
    - **Projects located in MECP Central or Eastern Region may be subject to the Oak Ridges Moraine Conservation Plan (2017) or the Lake Simcoe Protection Plan (2014).**
    - **Projects located in MECP Central, Southwest or West Central Region may be subject to the Niagara Escarpment Plan (2017).**
    - **Projects located in MECP Central, Eastern, Southwest or West Central Region may be subject to the Greenbelt Plan (2017).**
    - **Projects located in MECP Northern Region may be subject to the Growth Plan for Northern Ontario (2011).**

- **The Provincial Policy Statement (2020) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.**

- **In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.**

- ☐ **Source Water Protection**

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- **The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.**

- **If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.**

- **While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.**

- **In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the "Map Legend" bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.**

- **For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

- ☐ **Climate Change**

The document "Considering Climate Change in the Environmental Assessment Process" (Guide) is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of projects under a Class EA or EA Act Regulation to:**

1. **Consider during the assessment of alternative solutions and alternative designs, the following:**
    a. **the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and**
    b. **resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).**
2. **Include a discrete section in the report detailing how climate change was considered in the EA.**

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- **The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.**

- **Air Quality, Dust and Noise**

- **If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern.**

- **If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:**

    - **A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;**
    - **A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;**
    - **A discussion of local air quality impacts that could arise from this project during both construction and operation; and**
    - **A discussion of potential mitigation measures.**

- **Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.**

- **The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities* report prepared for Environment Canada. March 2005.**

- **The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.**

- **Noise associated with a proposed transformer station should be evaluated. Note that any noise monitoring and assessment should be conducted in accordance with the requirements of MECP guidelines, such as MECP Publication NPC-233, "*Information to be Submitted for Approval of Stationary Sources of Sound*".**

- **In order to address potential noise impacts of the transformer station, it may be necessary to first monitor ambient noise levels prior to the installation of the transformer station, and to then conduct a noise assessment after the transformer station is installed and operational. Depending on the results of these studies and the proximity to sensitive receptors, remedial measures may be needed to address noise generated by the transformer station.**

- **Ecosystem Protection and Restoration**

- **Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.**

- **Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:**
    - **Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.**
    - **Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.**
    - **Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.**

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features.

- **Species at Risk**

- **The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at https://www.ontario.ca/page/species-risk.**

- **The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.**

- **For any questions related to subsequent permit requirements, SAR Considerations etc., proponents / consultants should contact SAROntario@ontario.ca.**

- **Surface Water**

- **The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.**

- **Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods.**

- **A Stormwater Management Plan prepared as part of the Class EA process should include:**

    - **Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained**
    - **Watershed information, drainage conditions, and other relevant background information**
    - **Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works**
    - **Information on maintenance and monitoring commitments.**

- **Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.**

☐ **Groundwater**

- **The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.**

- **If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.**

- **Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts. For example, where construction of transmission towers is proposed, any pile driving into the subsurface that is required for steel pile type tower foundations, particularly to the bedrock surface at depth, may have an adverse effect on local groundwater resources.**

- **Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation**

– *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

- **Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.**

- **Groundwater should be protected from the potential for spills, dewatering and wood pole preservative during construction. A plan should be in place for preventing and dealing with spills. All spills that could potentially cause damage to the environment should be reported to the Spills Action Centre of the Ministry of the Environment, Conservation and Parks at 1-800-268-6060.**

Excess Materials Management

- **In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit https://www.ontario.ca/page/handling-excess-soil.**

- **The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).**

- **All waste generated during construction must be disposed of in accordance with ministry requirements**

Contaminated Sites

- **Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the MECP's D-4 guideline for land use considerations near landfills and dumps.**

- **Resources available may include regional/local municipal official plans and data; provincial data on large landfill sites and small landfill sites; Environmental Compliance Approval information for waste disposal sites on Access Environment.**

- **Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's website).**

- **The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.**

- **Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Consideration of potential environmental contamination should be given following regulatory guidance where the project involves decommissioning of facilities. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.**

- **Where poles are being removed that have been chemically treated, we recommend that the proponent consider soil testing to determine the extent of any related soil contamination. Soil testing may be contingent on factors such as proximity to water bodies or wetlands, proximity to wells, locations where poles are being removed but not replaced, and the treatment chemicals used (i.e. chromated copper arsenate (CCA) or creosote). In the case of poles which have been treated with CCA or creosote, testing for arsenic, copper and creosote should be completed.**

- **Servicing, Utilities and Facilities**

- **The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.**

- **The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.**

- **Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it**

can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- **We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.**

Mitigation and Monitoring

- **Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.**

- **Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.**

- **The proponent's construction and post-construction effects monitoring strategies and programs must be documented in the report.**

- **The proponent must consider cumulative effects when planning projects. The assessment will include the proposed undertaking and any other proposed undertakings in the immediate project area where documentation is available (e.g. other environmental assessments).**

Consultation

- **The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and describes how they have been addressed by the proponent throughout the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Guide to Environmental Assessment Requirements for Electricity Projects to include full documentation).**

- **Please include the full stakeholder distribution/consultation list in the documentation.**

- **Class EA Process**

- **The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.**

- **The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.**

- **Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.**

- **Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.**

Amendments to the EAA through the Covid-19 Economic Recovery Act, 2020

Once the report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address (for projects in MECP Eastern Region, the email is eanotification.eregion@ontario.ca).

The public has the ability to request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- **a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or**
- **the Director has issued a Notice of Proposed order regarding the project.**

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

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

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca