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**Fish and Fish Habitat
Preliminary Impact
Assessment Report**

Highway 401 Nagle Road
Interchange Study
(GWP 4059-17-00)

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FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Table of Contents

1.0	Introduction	1
2.0	Methods	2
3.0	Summary of Existing Conditions	3
4.0	Constraints and Opportunities	6
5.0	Preliminary Impact Assessment	6
5.1	Description of Work	6
5.2	Applicability of Best Management Practices and Routine Works	7
5.3	Preliminary Aquatic Effects Assessment	8
6.0	Mitigation Measures	10
6.1	Design	10
6.2	Construction	10
7.0	Determination of HADD	12
8.0	Summary	12
9.0	References	13

List of Tables

Table 1:	Summary of Fish and Fish Habitat Existing Conditions during Spring and Summer 2017 (GWP 4059-17-00).....	4
Table 2:	Proposed Work at Sites with Direct Fish Habitat – Nagle Road Interchange Study (GWP 4059-17-00).....	9
Table 3:	Design Considerations - Nagle Road Interchange Study (GWP 4059-17-00). 9	



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

List of Figures

Figure 1: Location of Study Area.....	1
Figure 2: Fish and Fish Habitat - Opportunities and Constraints	A.1

List of Appendices

Appendix A	Figure 2
Appendix B	Agency Correspondence
Appendix C	Nagle Road - Recommended Plan



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

1.0 Introduction

The Ministry of Transportation (MTO) and the Town of Cobourg retained Stantec Consulting Ltd. (Stantec) to undertake a Planning, Preliminary Design, and Class Environmental Assessment (EA) Study on Highway 401 for a new interchange near Nagle Road in the Town of Cobourg and the Township of Hamilton (**Figure 1**). The purpose of the study is to identify a Recommended Plan that addresses future transportation needs identified within the Town of Cobourg Official Plan (Town of Cobourg 2018). The Nagle Road interchange is the Town of Cobourg's initiative, as identified within the Cobourg East Community Secondary Plan (Town of Cobourg 2005).

The study includes reviewing existing conditions, developing and evaluating alternatives, identifying appropriate improvements, and developing environmental protection / mitigation measures for the Recommended Plan.

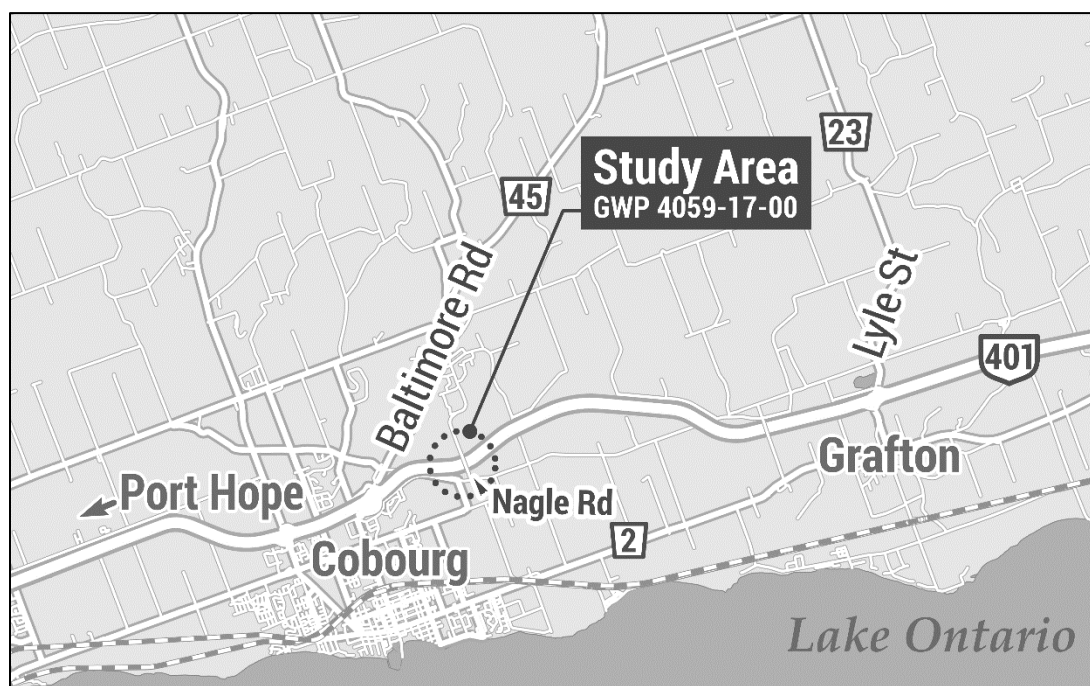


Figure 1: Location of Study Area



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

This *Fish and Fish Habitat Preliminary Impact Assessment Report* describes fish communities and fish habitat in the Study Area (**Figure 2** in **Appendix A**) and provides the preliminary impact assessment based on the Recommended Plan. Detailed methods and results of background data collection and field investigations, including photographs and field notes are available in the *Fish and Fish Habitat Existing Conditions Report* previously prepared for the project (Stantec 2018).

Following completion of field work and the *Fish and Fish Habitat Existing Conditions Report* (Stantec 2018), changes to the federal *Fisheries Act* came into force in August 2019. The *MTO/DFO/MNRF Protocol for the Protection of Fish and Fish Habitat on Provincial Undertakings* (the Protocol) (MTO 2020a) and the *Environmental Guide for Fisheries* (the Fish Guide) (MTO 2020b) were revised and updated in 2020. This report was completed in accordance with the *Environmental Reference for Highway Design* (MTO 2013) and the *Environmental Guide for Fish and Fish Habitat* (MTO 2009); however, terminology and definitions regarding effects on fish habitat reflect the changes to the *Fisheries Act* legislation and the revised Fish Guide (MTO 2020b).

Terrestrial environment features for this project are described in a separate report (Stantec 2023).

2.0 Methods

Details of agency correspondence, background data sources, and the methods and results of the 2017 field investigations are described in the *Fish and Fish Habitat Existing Conditions Report* for the project (Stantec 2018).

Fish and fish habitat field investigations were conducted on June 13, 2017 (spring survey) and September 20, 2017 (summer survey).

Information with respect to flow regime, thermal regime and constructed drains was updated for this *Fish and Fish Habitat Preliminary Impact Assessment Report* (illustrated in **Figure 2**). Fisheries and Oceans Canada's (DFO) aquatic species at risk (SAR) maps and the Natural Heritage Information Centre (NHIC) database were reviewed for updates regarding aquatic SAR.

Correspondence with the Ministry of Natural Resources and Forestry (MNRF) and Ministry of Environment, Conservation and Parks (MECP) received following their review of the *Fish and Fish Habitat Existing Conditions Report* (Stantec 2018) is provided in **Appendix B**.



May 2023

3.0 Summary of Existing Conditions

A tabular summary of existing conditions for fish and fish habitat is provided in **Table 1**. For consistency with the *Fish and Fish Habitat Existing Conditions Report* (Stantec 2018), **Table 1** has not been revised since the 2018 report was issued; however, the background data have been updated and the information provided is consistent with Template D2A and Template D2B of the 2020 Fish Guide (MTO 2020b).

Among the three potential watercourse crossings investigated within the Study Area, direct fish habitat was documented within the Highway 401 right of way (ROW) at all three sites (**Table 1** and **Figure 2**). The three watercourse crossings in the Study Area are natural, coldwater watercourses, generally drain southerly to Lake Ontario, and provide Brook Trout (*Salvelinus fontinalis*) habitat. None of the watercourses are constructed drains (MNRF 2022c). No aquatic SAR records were identified in the Study Area (DFO 2022; MNRF 2022b).



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT
Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Table 1: Summary of Fish and Fish Habitat Existing Conditions during Spring and Summer 2017 (GWP 4059-17-00)

Waterbody	Flow Regime	Thermal Regime ^a	Habitat Description	Fish Habitat	Fish Species Present and Species at Risk Present ^b	Substrate Type	Riparian and Instream Vegetation	Constraints and Opportunities	Significant Habitat	In-water Works Timing Window ^c
Unnamed Tributary 0A / Midtown Creek East	Permanent (MNRF 2022)	Cold (MNRF 2022a)	Upstream: flat over fine substrates, cascade at ROW fence with a 0.45 m drop into plunge pool with clay substrates and eroded banks. Flow continues as a riffle over riverstone to the culvert, approximately 2.5 m wide and 0.05 m deep. Dry during the summer. Downstream: cobble lined riffle/pool sequence 1 m to 1.6 m wide and 0.05 m to 0.3 m deep. Recently reconstructed channel from culvert to ROW fence. Trickle flow during the summer from culvert seepage.	Direct	<u>Fish Species Present:</u> Stantec: cyprinids observed MNRF 2018c; MNRF 2022a ^d : Blacknose Dace, Brook Stickleback, Brook Trout, Creek Chub, Fathead Minnow AECOM 2014: Not fished due to low water (Brook Trout observed) <u>Species at Risk Present:</u> None identified	Clay, cobble, silt, sand, detritus and riverstone	Riparian Vegetation: mixed forest Instream Vegetation: <i>Juncus</i> , cattails and grasses	Address barrier to fish movement (cascade at upstream ROW fence)	Yes (coldwater thermal regime) Iron staining on both upstream and downstream side	July 1 to Sept 30
Unnamed Tributary 0B / Brook Creek West	Permanent (MNRF 2022a)	Cold (MNRF 2018a; MNRF 2022a)	Upstream: habitat within the ROW consisted of run-riffle habitat approximately 2.5 m wide and 0.3 m deep and underlain with riverstone. Beyond ROW, habitat consisted of run over silt and sand substrates. Downstream: run-riffle sequence approximately 2.5 m wide and 0.05 m to 0.3 m deep over gravel, cobble and fine substrates. Cyprinids observed at culvert.	Direct	<u>Fish Species Present:</u> Stantec: cyprinids observed MNRF 2018a ^d ; MNRF 2022a ^d : Brook Stickleback, Brook Trout, Common Shiner, Creek Chub, Eastern Blacknose Dace, Fathead Minnow, Johnny Darter/Tessellated Darter, Longnose Dace, Mottled Sculpin, Northern Redbelly Dace, Rainbow Trout, White Sucker AECOM 2014: Not fished (Brook Trout observed) <u>Species at Risk Present:</u> None identified	Cobble, gravel, sand, silt and muck	Riparian Vegetation: cedar Instream Vegetation: cattails, bulrush and speedwell	None	Yes (coldwater thermal regime) Iron staining and watercress observed on the downstream side	July 1 to Sept 30

FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT
Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Waterbody	Flow Regime	Thermal Regime ^a	Habitat Description	Fish Habitat	Fish Species Present and Species at Risk Present ^b	Substrate Type	Riparian and Instream Vegetation	Constraints and Opportunities	Significant Habitat	In-water Works Timing Window ^c
Unnamed Tributary 0C / Brook Creek East	Permanent (MNRF 2022a)	Cold (MNRF 2018a; MNRF 2022a)	Upstream: trickle flows through dense watercress and cattails, no observable channel Downstream: pool at culvert approximately 1.5 m wide and 0.1 m deep with silt, gravel and muck substrates. Dense watercress 3 m beyond the culvert to the ROW fence. Beyond the ROW, channel flows to the west and is 1.5 m wide	Direct	<u>Fish Species Present:</u> Stantec: cyprinids observed MNRF 2018a ^d ; MNRF 2022a ^d : Brook Stickleback, Brook Trout, Common Shiner, Creek Chub, Eastern Blacknose Dace, Fathead Minnow, Johnny Darter/Tessellated Darter, Longnose Dace, Mottled Sculpin, Northern Redbelly Dace, Rainbow Trout, White Sucker AECOM 2014: Not fished due to low water; "Previous project-specific fisheries studies have not identified a fish population specific to this tributary [and it]. likely supports tolerant baitfish but is unsuitable for salmonids" <u>Species at Risk Present:</u> None identified	Sand, gravel and muck	Riparian Vegetation: cedars Instream Vegetation: dense watercress	None	Yes (coldwater thermal regime) Dense watercress upstream and downstream of the culvert	July 1 to Sept 30

a The *Fish and Fish Habitat Existing Conditions Report* (Stantec 2018) includes information on constructed drains and DFO Drain classifications, based on the Constructed Drain Layer available from the LIO database. The updated constructed drain layer (MNRF 2022c) does identify constructed drains in the Study Area

b MECP 2020; DFO 2022; MNRF 2018b. The MNRF correspondence (MNRF 2018b) included records of Silver Lamprey (within 1 km of the Study Area) and Northern Brook Lamprey (within 5 km of the Study Area); however, these species are not regulated by the *Species at Risk Act* or the *Endangered Species Act, 2007* and specific watercourses were not identified.

c Period during which in-water work can occur. The timing window is consistent with the restricted activity period of October 1 to June 30, provided by the MNRF (MNRF 2018a) for coldwater streams in the Peterborough District.

d The list provided in MNRF correspondence (MNRF 2018a) and available in the LIO database (MNRF 2020a) is not specific to the tributary but represents species documented in Brook Creek Aquatic Resource Area segments

May 2023

4.0 Constraints and Opportunities

Within the Highway 401 ROW, three mapped watercourses directly provide fish habitat. Species lists from background data sources indicate that the fish communities include Brook Trout, Rainbow Trout, Mottled Sculpin and a diversity of baitfish species. The three watercourses have a permanent flow regime (MNRF 2022a) and coldwater thermal regime (MNRF 2022a; MNRF 2018a).

Opportunities for habitat enhancement in the Study Area includes removing a barrier to fish passage located at the upstream edge of the Highway 401 ROW at Unnamed Tributary 0A.

Additional field investigations may be required in the Nagle Road Interchange Study Area, pending the results of culvert inspections and proposed work for the project (e.g., if additional culverts are identified that may support fish habitat or if proposed work extends beyond the existing Highway 401 ROW).

5.0 Preliminary Impact Assessment

5.1 Description of Work

The Recommended Plan for the Highway 401 interchange with Nagle Road consists of a hybrid Parclo A2/Diamond configuration, including two exit ramps and two entrance ramps (**Appendix C**). The addition of exit and entrance ramps results in the need for widening of the existing Highway 401 to accommodate the ramps, in addition to the ultimate future footprint of Highway 401 (i.e., eight lanes). The Nagle Road bridge over Highway 401 may be replaced in advance of the need for the proposed interchange.

Available Preliminary Design information that has the potential to affect fish and fish habitat in the Study Area is provided in **Table 2**.



May 2023

5.2 Applicability of Best Management Practices and Routine Works

In consultation with DFO, MTO has developed the *Best Management Practices Manual for Fisheries* (MTO 2020c) and a table of Routine MTO Works for activities within the MTO ROW that are not within a waterbody (Table 2 of the Protocol). The Best Management Practices (BMPs) and Table 2 of the Protocol were developed for routine activities in or near water with minimal to no impacts to fish and fish habitat. If a project is located within 30 m of the high water level of a waterbody and the activity is listed in Table 2 of the Protocol, it can proceed without a fisheries assessment (Step 1 of the Protocol). Mitigation measures must be implemented to reduce the risk of the death of fish and the harmful alteration, disruption or destruction (HADD) of fish habitat.

The BMPs streamline the regulatory review process for routine highway activities and provide mitigation measures to reduce the risk of the death of fish and HADD of fish habitat. A project can proceed without DFO review if the conditions and mitigation measures outlined in a BMP can be met (Step 3 of the Protocol). Where a BMP is used, an MTO Project Notification Form is completed and filed by MTO (Step 5).

If a project cannot meet the conditions of a BMP at Step 3 of the Protocol (MTO 2020c), a fisheries assessment is conducted to determine the likelihood of the HADD of fish habitat (Step 4). Projects proceed to Step 5 (MTO Notification) when there are no federally listed SAR and it is determined that HADD of fish habitat is not likely. Where HADD is likely and/or where federally listed SAR are present, the project proceeds to Step 6 of the Protocol where a Request for Review Application Form is submitted to DFO for review under the *Fisheries Act*.

The applicability of Table 2 of the Protocol should be determined during the Detail Design phase of the project for work that occurs within 30 m of fish habitat. Where activities in Table 2 of the Protocol do not apply, the applicability of BMPs should be determined for work in or within 30 m of water crossings where fish habitat was identified in the Study Area. Based on the Preliminary Design information summarized herein, and illustrated in the Recommended Plan (**Appendix C**), the following BMPs should be considered at Step 3 of the Protocol during Detail Design:

- **Ditch Maintenance within 30 m of a Waterbody** – the nature and extent of ditch maintenance is not known and should be assessed during Detail Design.
- **Temporary Water Crossing** – the need for temporary crossings has not been identified; however, this BMP may be applicable when construction access routes have been determined.



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

In order to be in compliance with the *Fisheries Act* and the Protocol, the design and construction of work in or near fish habitat must be undertaken in accordance with operational conditions, constraints, and the protection measures provided in the BMPs. Aquatic effects assessments are discussed below.

5.3 Preliminary Aquatic Effects Assessment

Table 2 provides a summary of information available from the Recommended Plan and identifies where an aquatic effects assessment will likely be required during Detail Design. The spatial extent of fish habitat directly affected by the project will need to be determined once the following information is confirmed:

- Culvert length (applicable to replacements and extensions)
- Culvert dimensions
- The need for rock protection (areal extent, aggregate size)
- The need for channel realignment
- Details of other activities that may affect fish and fish habitat

If rock protection (waterbody material) is proposed within the bankfull channel, the extent (area) of rock protection to be added and the area that will directly affect fish habitat should be determined during Detail Design and documented in the aquatic effects assessment. The rock protection (waterbody material) particle size should be determined using expected water velocities and selected from Table 3 or Table 4 of Ontario Provincial Standard Specification (OPSS) 1005. The addition of Granular B or small size waterbody material from Table 2 of OPSS 1005 to the waterbody material should be considered, to maintain wetted habitat to the extent possible by reducing water loss among the interstitial spaces in the rock protection. Design considerations are provided in **Table 3**.

As part of the fisheries assessment to be completed during Detail Design, Pathways of Effects (POEs) for land-based and in-water activities will need to be applied to determine the likelihood of the death of fish and/or HADD of fish habitat.

Based on data available at the time of report preparation, there are no aquatic SAR in the Study Area (DFO 2022; MNRF 2022b); however, the databases are updated from time to time and should be consulted again during Detail Design.



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT
Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Table 2: Proposed Work at Sites with Direct Fish Habitat – Nagle Road Interchange Study (GWP 4059-17-00)

Waterbody	Culvert ID/ Site	Station	Existing Structure				New Structure / Proposed Work				Proposed Work	Impact Assessment Rationale / Next Steps
			Type	Length (m)	Width (m)	Height (m)	Type	Length (m)	Width (mm)	Height (mm)		
Unnamed Tributary 0B / Brook Creek West	21-466/C0	21+721	Concrete Box (closed bottom)	80	4.2	2.1	*	*	*	*	Extend to north and south to accommodate 8-laning and addition of entrance and exit ramps at Nagle Road. Extension length to be determined during Detail Design.	Proposed work at this site is not a Protocol Table 2 activity and there is no BMP for culvert extensions. Conduct an aquatic effects assessment to address the culvert extensions.

* To be determined

Table 3: Design Considerations - Nagle Road Interchange Study (GWP 4059-17-00)

Factors to Consider	Design Considerations Provided by the Fisheries Assessment Specialist	Describe How Each Factor Was Addressed Through Design
In-water Works Timing Window	The watercourses in the Study Area have a coldwater thermal regime. The timing window within which in-water work can occur is July 1 to September 30, inclusive.	To be provided during Detail Design
Fish Passage	Migratory fish species present (site-specific; see Table 1): Rainbow Trout, Brook Trout The maintenance of fish passage must be considered during Detail Design (i.e., determine changes to fish passage due to potential changes in water velocity and culvert length).	To be provided during Detail Design
Significant Fish Habitat*	Brook Trout are present in Unnamed Tributary 0B/Brook Creek West. Although specific spawning habitat was not identified, the final design and contract should consider reducing impacts to potential spawning areas by: - Avoid the use of rock protection in the bed of the watercourse - Avoid adding geotextile to the creek bed and banks	To be provided during Detail Design
Constraints and Opportunities	Items that should be addressed through design: - Protect groundwater upwelling areas, as identified in Table 1.	To be provided during Detail Design
Other Considerations	If fish habitat is identified at additional locations, design must consider fish passage, opportunities and constraints, as applicable.	To be provided during Detail Design

* Means fish habitat that meets one or more of the following criteria (MTO 2020b):

- rare or uncommonly found habitat that may (but may not) be one of the limiting factors to the fish population
- specialized habitat that fish populations are highly dependent on to support critical life functions
- areas contributing to fisheries productivity that are exceptionally productive, likely to be limiting and are rare or relatively uncommon

May 2023

6.0 Mitigation Measures

6.1 Design

The following measures should be incorporated into the project design to reduce the risk of impacts to fish and fish habitat:

- Design project such that channel realignment is not required. If channel realignment is required, apply natural channel design principles in the design of the replacement watercourse in order to convey expected flows while maintaining or enhancing fish habitat and fish passage
- Design drainage systems to reduce changes in drainage to watercourses that provide fish habitat
- Design and plan activities and works such that loss of fish habitat or disturbance to fish habitat is reduced to the extent possible
- Design stormwater management measures to reduce effects on watercourses that provide fish habitat to the extent possible
- Design a rehabilitation/re-vegetation plan for long-term stability of the areas disturbed during construction and to provide or restore shade to watercourses
- Reduce the need for rock protection in the creek beds to the extent possible; particularly at locations identified as Significant Habitat in **Table 1**. Where rock protection is required below the normal high water level, use appropriately-sized material and install at a similar slope to the existing, maintain a uniform bank/shoreline, and maintain a natural bank/shoreline alignment such that it does not interfere with fish passage or alter the bankfull channel profile

6.2 Construction

Timing Windows

Work in watercourses that provide fish habitat, or have the potential to support fish habitat, is restricted to timing windows to reduce the risk of construction related impacts to fish during their most sensitive / vulnerable life cycles (i.e., during reproduction and early development stages).



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Within the Study Area, in-water construction activities at locations that support fish and fish habitat are permitted from July 1 to September 30 inclusive (i.e., in-water work is not permitted from October 1 to June 30) (MNRF 2018a). The timing window does not apply to work above the ordinary high water level.

Ontario Provincial Standard Specifications

The following OPSSs may be applicable to the project:

- OPSS.PROV 180 - General Specification for the Management of Excess Materials
- OPSS.PROV 182 - General Specification for Environmental Protection for Construction in and Around Waterbodies and on Waterbody Banks
- OPSS.PROV 517 - Construction Specification for Dewatering
- OPSS.PROV 803 - Construction Specification for Vegetative Cover (issued in April 2021 to replace the former OPSS.PROV 804)
- OPSS.PROV 804 - Construction Specification for Temporary Erosion Control (issued in April 2021 to replace the erosion control components of former OPSS.PROV 805)
- OPSS.PROV 805 - Construction Specification for Temporary Sediment Control (issued in November 2020 to replace the sediment control components of former OPSS.PROV 805)
- OPSS.PROV 825 - Construction Specification for Placement of Aggregates in Waterbodies
- OPSS.PROV 1005 - Material Specification for Aggregates - Waterbody

The following OPSSs are applicable to the following general activities:

- Equipment Use - Use of equipment shall be in accordance with OPSS 182.
- Fish Salvage - Fish salvage operations shall be conducted in accordance with OPSS.PROV 182.
- Dewatering and the Use of Pumps - Dewatering activities and the use of pumps shall be conducted in accordance with OPSS.PROV 517 and OPSS.PROV 182.
- Preservation of Riparian Vegetation - Removal of riparian vegetation shall be in accordance with OPSS.PROV 182.
- Erosion and Sediment Control - The installation, monitoring, maintenance, and removal of temporary erosion and sediment control measures shall be according to OPSS.PROV 182, OPSS.PROV 804, and OPSS.PROV 805.



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

- Placement of Aggregates in Waterbodies - Use of aggregate in waterbodies shall be according to OPSS.PROV 825 and OPSS.PROV 1005.
- Restoration of Disturbed Areas - Vegetation protection and rehabilitation shall be in accordance with OPSS.PROV 182, OPSS.PROV 803, and OPSS.PROV 804.
- Management of Excess Materials - All excess material shall be managed in accordance with OPSS.PROV 180 and Ontario Regulation 406/19.

Additional Measures

Additional site-specific mitigation measures may be required pending final design details for the project.

7.0 Determination of HADD

An aquatic effects assessment cannot be completed until the design details are available and finalized. The assessment should be conducted during Detail Design to assess the risk of the project to result in the death of fish or HADD of fish habitat.

8.0 Summary

The MTO and the Town of Cobourg retained Stantec to undertake a Planning, Preliminary Design, and Class EA Study on Highway 401 for a new interchange near Nagle Road in the Town of Cobourg and the Township of Hamilton. The purpose of the study is to identify a Recommended Plan that addresses current and future transportation needs in the Study Area as part of the MTO's ongoing review of safety and operational needs for the provincial highway network.

This *Fish and Fish Habitat Preliminary Impact Assessment Report* summarizes fish habitat and provides the preliminary impact assessment for work that has the potential to affect fish and fish habitat.

Three watercourse crossings were investigated within the Study Area and were identified as watercourses that provide direct fish habitat. The watercourses have a coldwater thermal regime and permanent flow regime. Species lists from background data sources indicate that the fish communities include Brook Trout, Rainbow Trout, Mottled Sculpin and a diversity of baitfish species.



FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

Based on the Recommended Plan, aquatic effects assessments will be required for proposed work at Unnamed Tributary 0B/Brook Creek West (Site 21-466/C0). Pending the outcome of Detail Design plans for the project, aquatic effects assessments may also be necessary at other water crossing locations assessed by Stantec in 2017 (i.e., if additional work is identified and BMPs do not apply) and/or at additional sites where fish and fish habitat may be identified during future field investigations in the Study Area.

The need for DFO to review proposed work will be determined during Detail Design.

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FISH AND FISH HABITAT PRELIMINARY IMPACT ASSESSMENT REPORT

Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

May 2023

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Ontario Ministry of Transportation (MTO). 2020c. Interim Environmental Guide for Fisheries – Best Practices Manual. Version 3.0, April 2020. Environmental Policy Office, St. Catharines, Ontario.

Stantec Consulting Ltd. (Stantec). 2018. Fish and Fish Habitat Existing Conditions Report – Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00) and Highway 401 Nagle Road Interchange Study (GWP 4059-17-00). Prepared for MTO Eastern Region. November 2018.

Stantec Consulting Ltd (Stantec). 2022. Terrestrial Ecosystems Impact Assessment Report - Highway 401 Nagle Road Interchange Study (GWP 4059-17-00).

Town of Cobourg. 2005. Town of Cobourg Official Plan Amendment 61 - Cobourg East Community Area Secondary Plan. June 24, 2005.

Town of Cobourg. 2018. Town of Cobourg Official Plan. 2010 Five Year Review Consolidation. Consolidation May 2018.



Appendix A

Figure 2



Appendix B

Agency Correspondence



From: [Penyk, Henry \(MNRF\)](#)
To: [Gazibara, Nevena](#)
Subject: Re: Preliminary design and Class EA Hwy 401 from Cobourg to Colborne (18-HAMI-NOR-EAE-2677 and PB2018-0448)
Date: Wednesday, June 06, 2018 2:35:07 PM
Attachments: [BW Cranberry \(Little\) Lake Wetland.pdf](#)
[CranberryLakeWetlandSummary.pdf](#)
[FishScreeningMapCH2018-06-06.pdf](#)
[FishScreeningTableCH2018-06-06.xlsx](#)

Good Afternoon Nevena,

MNRF Peterborough District has received your email (dated 04-26-2018) regarding the MTO Environmental Assessment for Highway 401 rehabilitation and future widening with respect to the project area located in the from 2km east of Nagle Road to Percy street (approximately 18 km). We provide the following general information and technical advice for your consideration:

General: MNRF Data and Information

MNRF's natural heritage and natural resources GIS data layers (including wetlands, ANSIs, and species at risk observations) can be obtained through the Ministry's [Land Information Ontario \(LIO\) website](#). You may also view natural heritage information online (e.g. Provincially Significant Wetlands, ANSIs, woodlands, species at risk 1 km screening squares) using the [Natural Heritage Make a Map](#) tool. To determine which species are protected under the Endangered Species Act, please refer to the [Species at Risk in Ontario List](#).

We recommend that you use the above-noted sources of information during review of your project proposal.

Wetlands

The subject property is adjacent to Provincially Significant Wetlands, Cranberry (little) Lake PSW adjacent to 401 at County Road 23 exit (North Side of 401). We recommend contacting your local Conservation Authority for more information on approvals that may be required.

In areas without Conservation Authority (CA) coverage, the delegated CA responsibilities fall to the municipality.

Fisheries

All crossings involve cold water streams, both spring and fall spawners, apply both in water work timing windows (Oct.1 to June 30th).

Attached to the email is the relevant map and table for Fisheries information.

Please contact Department of Fisheries and Oceans and/or the local Conservation Authority for any approvals that may be required and/or sediment/erosion control measures that may be required to be installed prior/during/after construction.

Species at Risk

A review of our best available information indicates that there are observations of the following species (endangered/threatened/special concern) in the immediate area of the

site (1 km radius):

1. American Eel (END)
2. Bank Swallow (THR)
3. Barn Swallow (THR)
4. Eastern Meadowlark (THR)
5. Peregrine Falcon (SC)
6. Silver Lamprey (Great Lakes – Upper St. Lawrence Populations) (SC)
7. Snapping Turtle (SC)
8. Wood Thrush (SC)

Also, there are observations of the following species (endangered/threatened/special concern) in the general area (5 km) of the proposed activities:

1. Blanding's Turtle (THR)
2. Bobolink (THR)
3. Butternut (END)
4. Canada warbler (SC)
5. Cerulean Warbler (THR)
6. Chimney Swift (THR)
7. Cucumber Tree (END)
8. Eastern Hog-nosed Snake (THR)
9. Eastern Prairie Fringed Orchid (END)
10. Eastern Ribbonsnake (SC)
11. Eastern Wood-pewee (SC)
12. Lake Sturgeon (Great Lakes – Upper St. Lawrence River Population) (THR)
13. Little Brown Myotis (END)
14. Loggerhead Shrike (END)
15. Northern Brook Lamprey (SC)
16. Red-headed Woodpecker (SC)
17. Short-eared Owl (SC)

Although no other threatened or endangered species or their habitat have been documented in the area of the proposed projects, these features may be present and this list should not be considered complete.

Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list are protected under the Endangered Species Act, 2007 (ESA). Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing or taking a member of a species listed as endangered, threatened or extirpated on the SARO list. Section 10(1) of the ESA prohibits the damage or destruction of habitat of a species listed as endangered or threatened on the SARO list.

Since comprehensive mapping for most species at risk is not available, a site assessment is recommended to identify the presence of any species at risk and/or their habitat on the subject lands, as a decision should not be made in the absence of such information. The focus of the site assessment can include a review of the information about known occurrences provided by MNR above along with other information sources such as species distributions and habitat requirements as well as field visits using MNR approved protocols during the appropriate seasons by a qualified professional.

Due to the species that are potentially present at this site, the following recommendations should help prevent adverse impacts:

Birds

Workers must be vigilant and check work areas for the presence of breeding birds and nests containing eggs and/or young. If breeding birds and/or nests are encountered, works should not continue in the location of the nest until after August 1 (or as soon as it has been determined that the young have left the nest). Please note that the breeding bird season in the subject area extends from April 15 to July 31.

Specific Barn Swallow Information: Barn Swallow nests may be present under bridges and/or culverts. Therefore, the underside of these structures should be assessed for Barn Swallow nests before proceeding. If no nests are present, a contravention of the ESA is unlikely. However, if nests are present, construction should not begin until after August 15 of any year. If nests will be impacted during the nesting season or if the structure will no longer be suitable for nesting post-construction, ESA requirements will apply to the activity. A regulatory provision is available that allows eligible activities that impact to Barn Swallow to register and follow all the rules in regulation in place of applying for a permit under the ESA. [See this website for more information on regulatory requirements for Barn Swallow.](#)

Turtles and Snakes

Workers must be vigilant and check work areas for the presence of turtles. If turtles or snakes are encountered, whenever possible, work should be temporarily suspended until the animal is out of harm's way. Workers should report any turtle observations (including photographs and coordinates) to the Peterborough District Office immediately at 705-755-2001. **Please note that the turtle nesting season in the subject area extends from May 15th to September 30th.** Therefore, activities which may cause adverse impacts to a species or habitat (e.g. use of heavy equipment) should commence after September 30th.

If you are proposing to conduct SAR/habitat surveys, please contact us for appropriate survey protocols.

Butternut:

If a Butternut tree(s) is identified and is to be removed, trimmed or is in close proximity to the application of herbicides, a Butternut Health Assessment must be conducted by an individual trained and certified by MNRF as a Butternut Health Assessor (BHA) as per the Ontario [Butternut Assessment Guidelines \(Dec 2014\)](#). All Butternut Health Assessments must be submitted to the MNRF District office for a 30 day review period before proceeding. Depending on the results of the assessment, you may have different options for how to proceed. Please see our [online factsheet](#) for more information. Please note that the ideal time of year to properly identify Butternut is during the leaf on period (approximately June to August). Workers should report any Butternut observations (including photographs and coordinates) to the Peterborough District Office immediately upon discovery. For those Butternut that are not proposed for removal, a minimum protective buffer of a 25 metre radius from the stem of each Butternut is required to prevent root disturbance. A larger area up to 50 m is also considered protected habitat for the tree. Within the 25 metre buffer area, activities that would remove or significantly compact the roots and soil, and cause direct harm to the Butternut are not permitted. Within the 25-50 metre buffer area, activities that would significantly damage or destroy habitat e.g. by impacting the tree's ability to disperse seeds are also not permitted. Removal of other vegetation and careful logging practices within this radius are permitted.

Regulatory Provisions and Further Registration Options

The ESA provides regulatory provisions for certain eligible activities to proceed without an ESA permit. To be eligible, the proponent register with the MNRF and adhere to specific rules in regulation under the ESA. To assess your eligibility please see the links below:

- [Information on the ESA regulatory provision](#)
- [ESA regulation \(O. Reg. 242/08\)](#).

If an impact to a species at risk or its habitat cannot be avoided, a person(s) should contact MNRF to discuss options, including applying for an authorization under the ESA. In situations where an activity is not registered with or authorized by the MNRF, a person(s) must comply with the ESA by modifying proposed activities to avoid impacts to species at risk and habitat protected under the ESA.

It is highly recommended that landowners and on-site workers familiarize themselves with [MNRF's Species at Risk website](#).

During on-site activities, should any species at risk or their habitat be potentially impacted, MNRF should be contacted immediately and operations should be modified to avoid any negative impacts to species at risk or their habitat until further discussions with MNRF can occur regarding opportunities for mitigation. If any species at risk are found, the MNRF Peterborough District Office should be contacted at **705-755-2001**. If possible, pictures of the species at risk and coordinates for the location where it was observed should be provided to MNRF.

Petroleum Wells & Oil, Gas and Salt Resource Act

There may be petroleum wells within the proposed project area. Please consult the Ontario Oil, Gas and Salt Resources Library website (www.ogsrlibrary.com) for the best known data on any wells recorded by MNRF. Please reference the 'Definitions and Terminology Guide' listed in the publications on the Library website in order to better understand the well information available. Any oil and gas wells in your project area are regulated by the *Oil, Gas and Salt Resource Act*, and the supporting regulations and operating standards. If any unanticipated wells are encountered during development of the project, or if the proponent has questions regarding petroleum operations, the proponent should contact the Petroleum Operations Section at 519-873-4634.

General Information Regarding MNRF approvals:

Fish and Wildlife Conservation Act

Please note that you may require a Scientific Collector's Permit from our office if you will be doing any fish or wildlife sampling, collection, salvage, or relocation within Peterborough District. For more information about Scientific Collector's Permits, please contact Julie Formsma, Fish and Wildlife Technical Specialist at 705-755-3296.

Other Approvals

It is the responsibility of the proponent to acquire all other information and necessary approvals from any other municipal, provincial or federal authority under other legislation. We recommend that you contact your local Conservation Authority, Department of Fisheries and Oceans, Ministry of the Environment and Climate Change, Ministry of Tourism, Culture and Sport, etc.

If you have any questions regarding the above comments, don't hesitate to contact me. Please reference file number **18-HAMI-NOR-EAE-2677 and PB2018-0448** for any future correspondence.

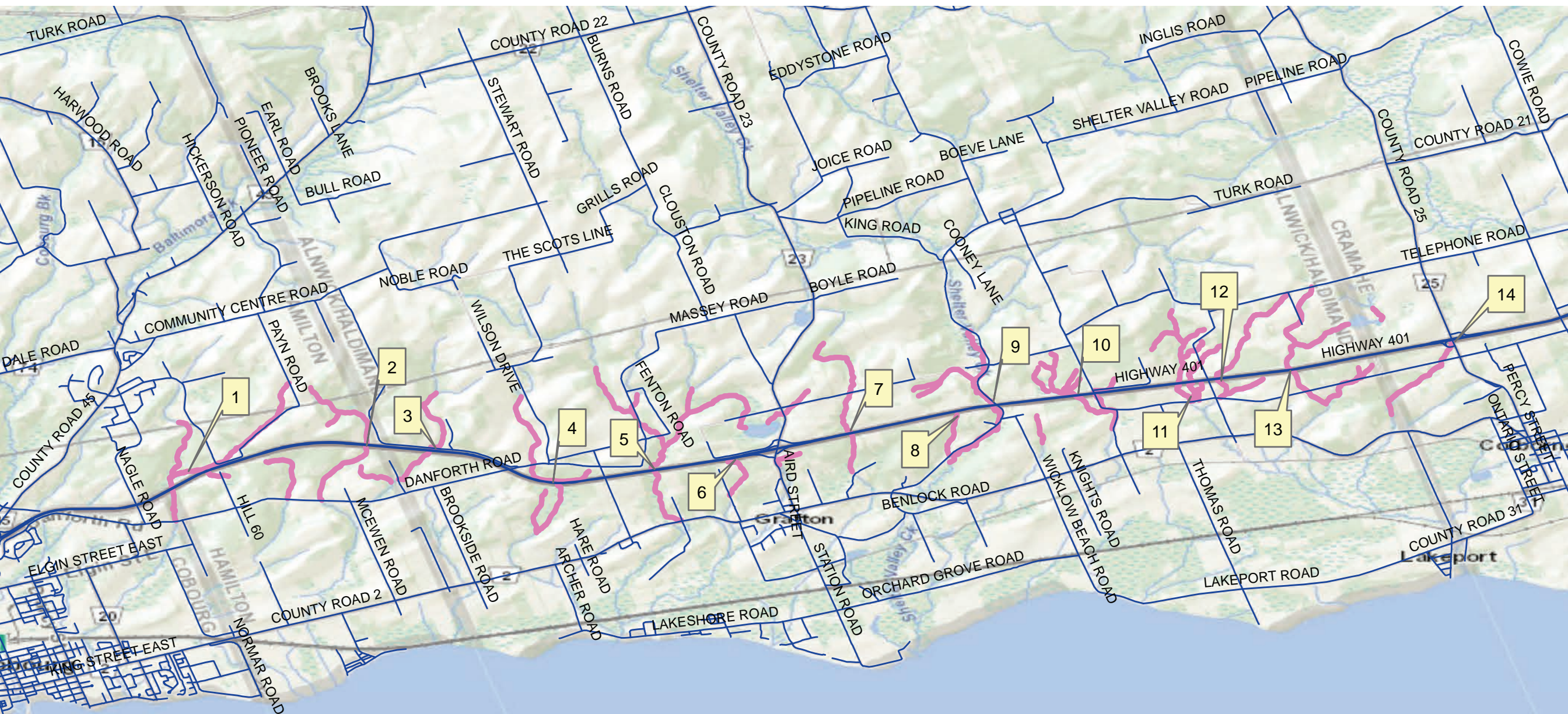
Sincerely,
Henry Penyk

Henry Penyk

Land Use Planning Assistant
Peterborough District, Ministry of Natural Resources and Forestry
300 Water St. Peterborough ON, K9J 3C7

Henry.penyk@ontario.ca

Please note: As part of providing [accessible customer service](#), please let me know if you have any accommodation needs or require communication supports or alternate formats.



**MNRF Location #1 is in the Nagle Road Study Area
(see the attached fish species list)**

Location (from Fish Screening Map)		Species	Thermal Regime	Timing Window (no in-water work)
Location #1 is in the Nagle Road Study Area		brook stickleback, brook trout, common shiner, creek chub, eastern blacknose dace, fathead		
	1	minnow, johnny darter/tessellated darter, longnose dace, mottled sculpin, northern redbelly dace, rainbow trout, white sucker	Cold	Oct. 1-June 30
	2	brook trout, creek chub, eastern blacknose dace, longnose dace, rainbow trout, white sucker	Cold	Oct. 1-June 30
	3	brook trout, creek chub, eastern blacknose dace, longnose dace, rainbow trout, white sucker	Cold	Oct. 1-June 30
	4	American brook lamprey, Atlantic salmon, black crappie, bluntnose minnow, brook trout, brown bullhead, brown trout, central mudminnow, coho salmon, common shiner, creek chub, eastern blacknose dace, emerald shiner, fantail darter, fathead minnow, johnny darter/tessellated darter, longnose dace, northern brook lamprey, northern hog sucker, northern redbelly dace, pumpkinseed, rainbow darter, rainbow trout, rock bass, sea lamprey, smallmouth bass, stonecat, white sucker	Cold	Oct. 1-June 30
	5	American brook lamprey, Atlantic salmon, black crappie, bluntnose minnow, brook trout, brown bullhead, brown trout, central mudminnow, coho salmon, common shiner, creek chub, eastern blacknose dace, emerald shiner, fantail darter, fathead minnow, johnny darter/tessellated darter, longnose dace, northern brook lamprey, northern hog sucker, northern redbelly dace, pumpkinseed, rainbow darter, rainbow trout, rock bass, sea lamprey, smallmouth bass, stonecat, white sucker	Cold	Oct. 1-June 30
	6	American brook lamprey, Atlantic salmon, black crappie, bluntnose minnow, brook trout, brown bullhead, brown trout, central mudminnow, coho salmon, common shiner, creek chub, eastern blacknose dace, emerald shiner, fantail darter, fathead minnow, johnny darter/tessellated darter, longnose dace, northern brook lamprey, northern hog sucker, northern redbelly dace, pumpkinseed, rainbow darter, rainbow trout, rock bass, sea lamprey, smallmouth bass, stonecat, white sucker	Cold	Oct. 1-June 30
	7	American brook lamprey, Lampreys, brook stickleback, brook trout, creek chub, eastern blacknose dace, fathead minnow, finescale dace, johnny darter/tessellated darter, northern redbelly dace, rainbow trout. Mudminnows, longnose dace, mottled sculpin, pumpkinseed, threespine stickleback, white sucker	Cold	Oct. 1-June 30
	8	American eel, Atlantic salmon, Chinook salmon, black bullhead, bluegill, bluntnose minnow, brook stickleback, brook trout, brown bullhead, brown trout, central mudminnow, coho salmon, common shiner, creek chub, eastern blacknose dace, emerald shiner, fantail darter, fathead minnow, finescale dace, golden shiner, johnny darter/tessellated darter, largemouth bass, logperch, longnose dace, mottled sculpin, northern brook lamprey, northern hog sucker, northern redbelly dace, pumpkinseed, rainbow trout, rock bass, sea lamprey, smallmouth bass, spottail shiner, threespine stickleback, white sucker, yellow perch	Cold	Oct. 1-June 30
	9	American eel, Atlantic salmon, Chinook salmon, black bullhead, bluegill, bluntnose minnow, brook stickleback, brook trout, brown bullhead, brown trout, central mudminnow, coho salmon, common shiner, creek chub, eastern blacknose dace, emerald shiner, fantail darter, fathead minnow, finescale dace, golden shiner, johnny darter/tessellated darter, largemouth bass, logperch, longnose dace, mottled sculpin, northern brook lamprey, northern hog sucker, northern redbelly dace, pumpkinseed, rainbow trout, rock bass, sea lamprey, smallmouth bass, spottail shiner, threespine stickleback, white sucker, yellow perch	Cold	Oct. 1-June 30
	10	Mudminnows, bluntnose minnow, brook stickleback, creek chub, eastern blacknose dace, fathead minnow, northern redbelly dace, rainbow trout, white sucker		
	11	American brook lamprey, Lampreys, bluntnose minnow, brook stickleback, brook trout, chum salmon, creek chub, eastern blacknose dace, fathead minnow, golden shiner, johnny darter/tessellated darter, logperch, longnose dace, mottled sculpin, northern redbelly dace, pumpkinseed, rainbow smelt, rainbow trout, rock bass, sea lamprey, slimy sculpin, smallmouth bass, white sucker	Cold	Oct. 1-June 30
	12	American brook lamprey, Lampreys, bluntnose minnow, brook stickleback, brook trout, chum salmon, creek chub, eastern blacknose dace, fathead minnow, golden shiner, johnny darter/tessellated darter, logperch, longnose dace, mottled sculpin, northern redbelly dace, pumpkinseed, rainbow smelt, rainbow trout, rock bass, sea lamprey, slimy sculpin, smallmouth bass, white sucker	Cold	Oct. 1-June 30
	13	American brook lamprey, Lampreys, bluntnose minnow, brook stickleback, brook trout, chum salmon, creek chub, eastern blacknose dace, fathead minnow, golden shiner, johnny darter/tessellated darter, logperch, longnose dace, mottled sculpin, northern redbelly dace, pumpkinseed, rainbow smelt, rainbow trout, rock bass, sea lamprey, slimy sculpin, smallmouth bass, white sucker	Cold	Oct. 1-June 30
	14	American brook lamprey, Lampreys, bluntnose minnow, brook stickleback, brook trout, chum salmon, creek chub, eastern blacknose dace, fathead minnow, golden shiner, johnny darter/tessellated darter, logperch, longnose dace, mottled sculpin, northern redbelly dace, pumpkinseed, rainbow smelt, rainbow trout, rock bass, sea lamprey, slimy sculpin, smallmouth bass, white sucker	Cold	Oct. 1-June 30

From: Prell, Phil (MNRF)
To: [Gazibara, Nevena](#)
Subject: Revised Species at Risk list for the Preliminary Design and Class Environmental Assessment for Highway 401 Planning Study for Cobourg to Colborne
Date: Tuesday, September 04, 2018 2:53:08 PM

Dear Nevena,

Below is the revised list of species at risk for the hwy 401 project. Not much as changed (see below).

Revised list of Species at Risk (this changed in early August):

Species at Risk

A review of our best available information indicates that there are observations of the following species (endangered/threatened/special concern) in the immediate area of the site (1 km radius):

1. American Eel (END)
2. Bank Swallow (THR)
3. Barn Swallow (THR)
4. Eastern Meadowlark (THR)
5. Peregrine Falcon (SC)
6. Silver Lamprey (Great Lakes – Upper St. Lawrence Populations) (SC)
7. Snapping Turtle (SC)
8. Wood Thrush (SC)

Also, there are observations of the following species (endangered/threatened/special concern) in the general area (5 km) of the proposed activities:

1. Blanding's Turtle (THR)
2. Bobolink (THR)
3. Butternut (END)
4. Canada warbler (SC)
5. Cerulean Warbler (THR)
6. Chimney Swift (THR)
7. Cucumber Tree (END)
8. Eastern Hog-nosed Snake (THR)
9. Eastern Prairie Fringed Orchid (END)
10. Eastern Ribbonsnake (SC)
11. Eastern Wood-pewee (SC)
12. Lake Sturgeon (Great Lakes – Upper St. Lawrence River Population) (THR) →

changed to (E)

13. Little Brown Myotis (END)
14. Loggerhead Shrike (END)
15. Northern Brook Lamprey (SC)
16. Red-headed Woodpecker (SC)
17. Short-eared Owl (SC)

Although no other threatened or endangered species or their habitat have been documented in the area of the proposed projects, these features may be present and this list should not be considered complete.

Overall it appears that only Lake Sturgeon have changed their designation. All other species are correctly classified.

From: [Spang, Elizabeth \(MNRF\)](#)
To: [Werner, Julie](#)
Cc: [Gazibara, Nevena](#)
Subject: RE: Preliminary Design and Class EA Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00)
Date: Thursday, December 20, 2018 1:09:05 PM

Good afternoon Julie:

Apologies for the delay in responding to this inquiry. MNRF Peterborough District has reviewed the location of the additional watercrossing over a tributary of Midtown Creek (just west of Nagle Road in Cobourg, UTM: 17T 728189 4875012). We can provide you with the following information from our data:

(limited) ARA data for Midtown Creek (PB-0005-UHA)

Fish Species: Blacknose Dace, Brook Stickleback, Brook Trout, Creek Chub, Fathead Minnow

Thermal = Cold

Recommended Restricted In-water work window = Oct. 1 to June 30.

According to our records, there are no known aquatic species at risk in immediate area.

I trust this is what you need.

Best wishes for the holidays!

Liz Spang, M.Pl

District Planner
Peterborough District
Ontario Ministry of Natural Resources and Forestry
300 Water Street, 1st Floor South
Peterborough, ON K9J 8M5
Tel: (705) 755-3360
Fax: (705) 755-3125
Email: Elizabeth.Spang@ontario.ca

From: Werner, Julie <Julie.Werner@stantec.com>
Sent: November 6, 2018 10:57 AM
To: Spang, Elizabeth (MNRF) <Elizabeth.Spang@ontario.ca>
Cc: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Subject: Preliminary Design and Class EA Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00)

Good morning Ms. Spang,

My name is Julie Werner and I am a planner with Stantec Consulting Ltd. I left you a message on Monday afternoon in regards to a request for fisheries information for the MTO Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00) project number 165001090. Henry Penyk, a Land Use Planning Assistant from MNRF has already provided Stantec with most of the watercourse information on June 6, 2018 (see [let_1090_mnrf_20180606.pdf](#)). However we are missing the information for 1 Unnamed Tributary (Trib OA) just east Nagle Road (see [FishScreeningMap_Trib_OA_missing.pdf](#) & [TribOA_FishFishHab_Figure.pdf](#)).

Are you able to provide us with the same information Mr. Penyk did for this one tributary? I have include a table below which summarizes the data we require. Please feel free to call myself or Nevena Gazibara, the lead Planner with any questions you may have.

Nevena Gazibara B.Sc., MREM, ENV SP
Environmental Planner

Direct: 905 381-3249
Fax: 905 385-3534
nevena.gazibara@stantec.com
Stantec
200-835 Paramount Drive
Stoney Creek ON L8J 0B4 CA

Data Required from MNRF:

Tributary	Species Identified	Thermal Regime	Timing Window (no in-water work)
Unnamed OA			

Thank you,

Julie Werner B.A., GISP
Environmental Planner, GIS Analyst

Direct: 905 321-3245
Mobile: 905 928-9240
Julie.Werner@stantec.com

Stantec
200-835 Paramount Drive
Stoney Creek ON L8J 0B4 CA

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

Ministry of Natural Resources and Forestry (MNR)
Ministry of Environment, Conservation and Parks (MECP)

Highway 401 Planning Study from Cobourg to Colborne
Preliminary Design & Class Environmental Assessment
GWP 4060-11-00 and Nagle Road Interchange Study GWP 4059-17-00
Assignment Number 4015-E-0033, / Stantec File 165001090 & 165001106

Date/Time: November 12, 2019 / 10:30 AM

Place: Conference Call

Next Meeting: TBD

Attendees:	Muhammad Waseem	MTO Project Manager
	Erin Pipe	MTO Environmental Planner
	Elizabeth Spang	Ministry of Natural Resources and Forestry
	Catherine Warren	Ministry of Natural Resources and Forestry
	Colin Higgins	Ministry of Natural Resources and Forestry
	Monique Charette	Ministry of Environment, Conservation and Parks
	Gregg Cooke	Stantec Project Manager
	Nevena Gazibara	Stantec Environmental Team Lead
	Debra Giesbrecht	Stantec Terrestrial Ecologist

Distribution: Project Team

Item:

Action:

1. All attendees were introduced.
2. Gregg Cooke provided a presentation that included an overview of the study purpose and scope of projects and the environmental assessment processes being completed and consultation programs. A copy of the presentation is attached to the meeting notes.
3. The scope of the two current studies includes:
 - Rehabilitation and replacement of bridges and structural culverts
 - Interchange modifications at Lyle Street and Percy Street
 - Commuter parking lot expansions and relocations
 - Establishing footprints of Highway 401 for future six and eight lanes
 - A new interchange near Nagle Road and rehabilitation or replacement of the existing Nagle Road bridge to accommodate the new interchange and future Highway 401 widening
4. Gregg Cooke provided an overview of the preliminary design alternatives that were presented at the first Public Information Centre. The first PIC was held on September 18, 2019.
5. Nevena Gazibara provided an overview of the environmental investigations completed to-date, and in particular the terrestrial and aquatic existing conditions investigations, results, and reports.

November 12, 2019

Meeting with MNRF and MECP

Page 2 of 3

Item:

Action:

- a. It was noted that the existing conditions report were completed in 2018 and shared with the MNRF and MECP.
 - b. The terrestrial fieldwork program for the project and reports was completed in the summer of 2017, in advance of the formal commencement of the project. The field investigations included identifying significant wildlife habitats, completing ecological land classifications based on observations, observations of wildlife, birds and nests. The study area was determined to be 120 m from the ROW and fieldwork was conducted from the Highway 401 ROW.
 - c. The fisheries fieldwork program was completed in the spring and summer of 2017 and included fish habitat and ecological conditions identification and fish inventories for all watercourses within the study area.
 - d. The project team identified a Provincially Significant Wetland (Cranberry Lake) within the study area, phragmites within the ROW, individual Barn Swallows flying around the study area (but no nests), Eastern Pheobe nests at Shelter Valley Creek, possible turtle wintering areas and amphibian breeding habitats and animal movement corridors.
 - e. The fisheries investigations identified 17 watercourses with potential to provide fish habitat with most watercourses classified as permanent coldwater thermal regime watercourses with sensitive species present. One Species at Risk (American Eel) was recorded in background information in Shelter Valley Creek. As the study continues and a preferred plan is identified at Shelter Valley Creek the potential impacts to this SAR will be identified and the need for an ESA permit will be identified through consultation with the MECP.
6. Stantec noted that they have received MNRF's comments on the existing conditions reports and will update the items identified in the Impact Assessment reports, scheduled to be completed once preferred plans are selected. MECP noted that they will provide their comments on the reports within the next month.
 7. MNRF and MECP asked why targeted species surveys were not completed as part of the fieldwork. Stantec noted that targeted species surveys were not included in this Planning and Preliminary Design stage and scope of work. These detailed surveys are typically completed during Detail Design, once the recommended plan is finalized and construction details are known.
 8. MNRF noted that there is no information regarding deer wintering areas within the terrestrial existing conditions report. MNRF noted that they will provide that information to Stantec to include in the Impact Assessment Report.
 9. MNRF noted that there are opportunities and potential for eco-passages at the Unnamed Creek crossing that is 1.4 km West of the Cranberry Lake PSW (21-469) and the Graft Creek culvert, near Craig Road, and possibly near Shelter Valley Creek.
 10. Stantec discussed wildlife collision data provided by the MTO within the corridor and noted that there are not any significant patterns observed but that there are clusters of accidents near Lyle Street, Percy

November 12, 2019

Meeting with MNRF and MECP

Page 3 of 3

Item:

Action:

Street and Shelter Valley Road. MNRF and MECP requested that the wildlife collision data be shared with them. *Following the meeting, Stantec provided the wildlife collision data with MNRF and MECP.*

11. Stantec and MTO noted that within the study area there are six structural culverts that have been identified for rehabilitation or replacement as part of this study and design alternatives have been developed (as shown on the PIC displays). At this early design stage there may be opportunities to identify culverts that could be used as eco-passages for wildlife if wildlife habitat and movement corridors are identified and topographical conditions are suitable for eco-passages. Stantec noted that they have designed upsized culverts on other projects to create eco-passages but that the success of the eco-passage depends on the length of the culvert, light availability, and ability to create and install funnel fencing adjacent to the culvert.
12. As an example, there are two culverts at Shelter Valley Creek (one road culvert and one watercourse culverts. One of the alternatives that Stantec has developed and is shown on the PIC displays is a new bridge to replace the two existing culverts. This may provide an opportunity for an eco-passage, when compared to the other design alternatives at Shelter Valley Creek. MNRF noted that the new bridge alternative is probably a better option for wildlife- less restricted area. MNRF and MECP requested copies of the PIC displays. *Following the meeting, Stantec provided the PIC displays to MNRF and MECP.*
13. MNRF noted that they will review the wildlife collision data provided and share deer wintering areas that will assist Stantec with identifying potential opportunities to use the structural culverts included in this study as eco-passages.
14. A future meeting will be scheduled with the MNRF and MECP once preferred plans have been identified and to confirm if there are opportunities for culvert eco-passages within the study area.

MNRF

The meeting adjourned at 11:50 AM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



on behalf of

Nevena Gazibara, B.Sc., MREM, ENV SP

Environmental Planner

Stantec Consulting Ltd.

Phone: 905-381-3249

nevena.gazibara@stantec.com

From: [Spang, Elizabeth \(MNRF\)](#)
To: [Gazibara, Nevena](#)
Cc: [Warren, Catherine \(MNRF\)](#)
Subject: RE: GWP 4060-11-00 Highway 401 Planning Study from Cobourg to Colborne- Terrestrial and Aquatic Existing Conditions Reports
Date: Thursday, October 31, 2019 1:36:48 PM

Good afternoon Nevena:

Thank you very much for circulating the Fisheries and Terrestrial Existing Conditions Reports to MNRF for review and comment. I apologize sincerely for the delay in getting comments to you. We are looking forward to discussing this project further with your team and appreciate you reaching out. MNRF understands that the project entails future widening of the highway from 4 to up to 8 lanes along with rehabilitation of structures, interchange modifications, and commuter parking lot improvements. MNRF previously provided background information to the project team on August 8, 2018 (general background data including fisheries data for all watercrossings), and on Dec 12, 2018. MNRF's comments on the existing conditions reports at this time can be found below.

Fish and Fish Habitat Existing Conditions Report – Hwy 401 Planning Study from Cobourg to Colborne, prepared by Stantec, dated Nov 9, 2018

In general, the report was well done. MNRF has the following comments to provide:

- Permanent vs Intermittent streams: MNRF considers any water feature present for 9 months or more to be permanent. Some creeks were identified by MNRF as permanent, but during Stantec's field visits in September they were found to be dry and labeled as intermittent. Without further, multiple year investigations, it is inconclusive whether these streams are in fact permanent or intermittent. MNRF defaults to a permanent designation.
- MNRF ARA data identified some streams as containing Chum Salmon. This is highly unlikely. Chinook and Coho salmon are the only pacific salmon known to currently occur in Lake Ontario and it's tributaries. Atlantic salmon may also be present and are identified in Shelter Valley Creek. We have confirmed that the ARA data reporting Chum Salmon is incorrect; the catch of Coho salmon in Colborne Creek in 2006 was improperly entered as Chum salmon. We will be correcting this in our data layers.
- The timing window for NO in-water work that MNRF provided in 2018 for all water crossings was Oct 1 – June 30. It appears that Table 3-1 references the opposite dates (July 1 – Sept 30) when in-water work IS permitted. MNRF would appreciate confirmation that our understanding is correct and that the correct timing window will be applied.
- As you know, since the report was authored, the responsibility for species at risk

in Ontario has been shifted to the Ministry of Environment, Conservation and Parks (MECP). MECP should be consulted for advice regarding any aquatic species at risk that may be affected by the project.

Terrestrial Ecosystems Existing Conditions Report – Hwy 401 Planning Study from Cobourg to Colborne, prepared by Stantec, dated Nov 5, 2018

In general, the report provides a good start to inventorying the existing features in the study area; However, there are significant gaps in identifying natural heritage features that have not yet been evaluated. The EA process should address the infrastructure policies (section 3.2) of the *2019 A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (the “Growth Plan”). MNRF has the following specific comments to provide:

- MNRF appreciates the background work done to map ELC vegetation communities along the entire corridor and conduct preliminary investigations for significant wildlife habitat following MNRF's Ecoregion Criteria Schedules. MNRF agrees with the conclusion statement that 'Further investigations of these candidate features (turtle wintering areas, amphibian breeding habitat, animal movement corridors and Snapping turtle habitat) are recommended during detailed design.' MNRF recommends adding habitat for special concern species (see further comment below), turtle nesting area investigations, as well as additional large culvert inspections for nesting birds. Surveys should be done at the appropriate time of year using established methodologies.
- Table 3.2 lists potential habitat for several special concern species within the study area such as breeding habitat for several SC birds. Habitat for special concern species should also be considered significant wildlife habitat. The August field surveys were not conducted at the appropriate time of year to capture breeding birds. MNRF recommends further field investigations during detail design to confirm whether these species are present to identify appropriate mitigation measures.
- MNRF strongly recommends considering enhancing opportunities for wildlife movement across the widened highway corridor by including ecopassages in the design. Turtles and amphibians in particular are very sensitive to population impacts from road mortality. Candidate areas could include larger valley features that already include watercrossings of some kind that could be enhanced to provide safe passage for a variety of wildlife. A potential best bet opportunity for an ecopassage (reptile/amphibian, perhaps other larger animals too) is suggested at the unnamed creek crossing 1.4 km W of Cranberry (Little) Lake Wetland PSW. There are other potential opportunities at the water crossing/valley near Craig Road (Fig 4) that provides a direct connection from a nearby Oak Ridges Moraine Natural Linkage Area to the north to the Growth

Plan NHS north and south of the highway, or possibly at Shelter Valley Creek connecting down to Grafton Swamp PSW at Lake Ontario. MNRF would welcome further discussion with MTO/Stantec about ecopassages. MNRF can provide BMPs for wildlife fencing and ecopassage design for reptiles and amphibians. If MTO has any information to share (e.g. areas with higher vehicle-wildlife conflicts, field assessments of water/valley crossings with good potential), it would be appreciated.

- There are Stratum 2 deer wintering areas within the study area that were not referenced in the report. Deer wintering areas are mapped by MNRF and should be considered significant wildlife habitat as well. Mitigation options for significant wildlife habitat types can be found in the SWH Mitigation Support Tool, found here: <https://www.ontario.ca/page/natural-heritage-planning-resources-municipal-planning>.
- **Growth Plan:** On May 2, 2019, the Province issued a revised Provincial Plan document called '*A Place to Grow: Growth Plan for the Greater Golden Horseshoe*' (2019). This Plan replaced the Growth Plan for the Greater Golden Horseshoe, 2017 as of May 16, 2019. The entire study area is located within the Growth Plan and most of the study area is located within the Growth Plan Natural Heritage System (NHS). The Infrastructure policies of the Growth Plan state that an environmental assessment should demonstrate "*that any impacts on key natural heritage features in the Natural Heritage System for the Growth Plan, key hydrologic features and key hydrologic areas have been avoided, or if avoidance is not possible, minimized and to the extent feasible mitigated.*" (S. 3.2.5). The Growth Plan can be accessed here: <https://www.ontario.ca/document/place-grow-growth-plan-greater-golden-horseshoe>. Please see the Growth Plan definitions for a list of key natural heritage features and key hydrologic features. Please note that not all key natural heritage features or key hydrologic features have been mapped in advance and field verifications may be required to map some of these features.
- The report does not investigate whether any of the wooded areas within the study area have potential to be significant woodlands. Significant woodlands are key natural heritage features within the Growth Plan NHS (in addition to being a significant natural heritage feature in the PPS). MNRF is of the opinion that there are woodlands in the study area that have potential to be significant. MNRF recommends that the 2010 Natural Heritage Reference Manual criteria be used to determine woodland significance in Northumberland County. Given that Northumberland County has approximately 36% forest cover, a minimum size of 50 ha is recommended. This size must be identified based on contiguous woodland polygons (excluding gaps less than 20 m wide), regardless of whether they extend outside of the study area (i.e. woodland size must not be cut off at

the study area boundary for the purposes of measuring their overall size). It should be noted that the County of Northumberland is currently developing their own significant woodlands criteria and policies, but they are not yet in place. The municipality is ultimately the approval authority to determine woodland significance for municipal planning purposes. Municipal criteria may exceed the minimum standard set by the Province (e.g. by choosing a smaller threshold to capture more woodlands). For the purposes of the EA, MNRF recommends, at a minimum, a basic analysis of woodlands based on size in order to determine potential significant woodlands and any required measures that are required to avoid, or if avoidance is not possible, minimize and mitigate impacts to the extent possible in accordance with the Growth Plan and the PPS.

- The report does not address unevaluated wetlands, many of which exist in the study area according to the ELC mapping provided. The Growth Plan identifies all wetlands, regardless of significance, as key hydrologic features, which are protected throughout the Growth Plan area (except within settlement areas designated in a municipal official plan). MNRF recommends that the criteria in the 2005 “Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside Area” (found here: <http://www.mah.gov.on.ca/Page10197.aspx>) be used to identify wetlands subject to the Growth Plan. Essentially all wetlands are protected unless there is rationale that small wetlands less than 0.5 ha in size do not provide certain functions (see criteria for details). ELC is an acceptable method to map wetlands subject to the Growth Plan wetland policies. MNRF recommends that any wetlands identified in the ELC mapping be considered key hydrologic features (and additionally key natural heritage features if located within the Growth Plan NHS) and be avoided, or if avoidance is not possible, impacts are minimized and mitigated to the extent possible in accordance with the Growth Plan.
- As you know, since the report was authored, the responsibility for species at risk in Ontario has been shifted to the Ministry of Environment, Conservation and Parks (MECP). MECP should be consulted for advice regarding any species at risk that may be affected by the project.
- MNRF manages two acquired crown land areas that are immediately adjacent to the highway within the study area. One is located near Payne Road on south side of the Hwy in Lot 5, Con 1, Hamilton. The second area is two distinct parcels on either side of Vernonville Rd, north side of Hwy in Lots 10 & 11, Con 1, Haldimand. MNRF requests to be contacted for discussion if any impacts from the project are expected on these two Crown land areas.

Thank you for the opportunity to comment. I will be out of the office on maternity leave

starting November 18, 2019. Let me know if a teleconference can be scheduled before that time. During my absence, inquiries regarding this project can be directed to my planner colleague, Catherine Warren, cc'd. Please reference the MNR file numbers **18-HAMI-NOR-EAE-2677** and **PB2018-0448** in any future correspondence.

Kind regards,

Liz Spang, M.Pl

District Planner
Peterborough District
Ontario Ministry of Natural Resources and Forestry
300 Water Street, 1st Floor South
Peterborough, ON K9J 8M5
Tel: (705) 755-3360
Fax: (705) 755-3125
Email: Elizabeth.Spang@ontario.ca

From: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Sent: October 9, 2019 9:20 AM
To: Spang, Elizabeth (MNR) <Elizabeth.Spang@ontario.ca>; Charette, Monique (MECP) <monique.charette@ontario.ca>
Cc: Waseem, Muhammad (MTO) <Muhammad.Waseem@ontario.ca>; Pipe, Erin (MTO) <Erin.Pipe@ontario.ca>; Cooke, Gregg <gregg.cooke@stantec.com>; Belliveau, Tim <tim.belliveau@stantec.com>
Subject: RE: GWP 4060-11-00 Highway 401 Planning Study from Cobourg to Colborne- Terrestrial and Aquatic Existing Conditions Reports

Good morning Elizabeth and Monique,

I'm following up to see if you two have had time to review the existing conditions reports for the above-mentioned study and whether the project team can schedule a joint conference call/meeting with you to discuss the project, existing natural heritage features, and sensitive areas and constraints, to consider as the project moves forward and preliminary design alternatives are refined and evaluated.

Please let me know your interest and availability in a meeting with the project team.

Kind regards,

Nevena Gazibara B.Sc., MREM, ENV SP
Environmental Planner

Direct: 905 381-3249
Fax: 905 385-3534
nevena.gazibara@stantec.com

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From: Spang, Elizabeth (MNRF) <Elizabeth.Spang@ontario.ca>
Sent: Thursday, May 16, 2019 10:45 AM
To: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Cc: Waseem, Muhammad (MTO) <Muhhammad.Waseem@ontario.ca>; Pipe, Erin (MTO) <Erin.Pipe@ontario.ca>; Cooke, Gregg <gregg.cooke@stantec.com>; Belliveau, Tim <tim.belliveau@stantec.com>
Subject: RE: GWP 4060-11-00 Highway 401 Planning Study from Cobourg to Colborne- Terrestrial and Aquatic Existing Conditions Reports

Hello Nevena:

I've successfully downloaded the reports. Thanks for reaching out and for sharing them with us. I'll be in touch when we've had an opportunity to review. As mentioned on the phone, the contact for species at risk reviews/inquiries is now the Ministry of Environment, Conservation and Parks at SARontario@ontario.ca.

Cheers,

Liz Spang, M.Pl

District Planner
Peterborough District
Ontario Ministry of Natural Resources and Forestry
300 Water Street, 1st Floor South
Peterborough, ON K9J 8M5
Tel: (705) 755-3360
Fax: (705) 755-3125
Email: Elizabeth.Spang@ontario.ca

From: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Sent: May 10, 2019 4:14 PM
To: Spang, Elizabeth (MNRF) <Elizabeth.Spang@ontario.ca>
Cc: Waseem, Muhammad (MTO) <Muhhammad.Waseem@ontario.ca>; Pipe, Erin (MTO) <Erin.Pipe@ontario.ca>; Cooke, Gregg <gregg.cooke@stantec.com>; Belliveau, Tim <tim.belliveau@stantec.com>
Subject: GWP 4060-11-00 Highway 401 Planning Study from Cobourg to Colborne- Terrestrial and Aquatic Existing Conditions Reports

Good afternoon Elizabeth,

As per our telephone discussion the other day, please find a temporary FTP site with the terrestrial and aquatic existing conditions reports for the above-mentioned project for your reference.

Login Information

Browser link: <https://tmpsftp.stantec.com>

FTP Client Hostname: tmpsftp.stantec.com **Port:** 22 (can be used within an FTP client to view and transfer files and folders; e.g., FileZilla)

Login name: s0524135614

Password: 2654096

Disk Quota: 2GB

Expiry Date: 5/24/2019

Please let me know if you have any issues accessing the files.

Once you have had a chance to review the reports we can discuss a potential meeting with you and the project team.

Kind regards,

Nevena Gazibara B.Sc., MREM, ENV SP
Environmental Planner

Direct: 905 381-3249

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Stantec Consulting Ltd.
200-835 Paramount Drive, Stoney Creek ON L8J 0B4

April 9, 2020
File: 165001090

Ms. Catherin Warren
District Planner
Ministry of Natural Resources and Forestry- Peterborough District
300 Water Street, 1st Fl
Peterborough ON K9J 3C7

Dear Ms. Warren,

**Reference: Highway 401 Planning Study from Cobourg to Colborne, Ontario (GWP 4060-11-00)
Highway 401 Nagle Road Interchange Study (GWP 4059-17-00) - Response to
Comments Received on Natural Environment Existing Conditions Reports**

Dear Ms. Warren,

Thank you for taking the time to review the Terrestrial and Fisheries Existing Conditions Reports and provide comments on behalf of the MNRF in relation to the above-mentioned project. In addition, thank you for participating in the conference call with the project team and with the Ministry of Environment, Conservation and Parks (MECP) held on November 12, 2019.

With respect to your comments and suggestions regarding the Fish and Fish Habitat Existing Conditions report, please note that the project team will incorporate these changes into the Fish and Fish Habitat Impact Assessment Report, which will be completed once a preferred plan is selected for the project. It is anticipated that this report will be completed in June 2020. As part of these changes, we will: revise the intermittent watercourses to reflect that they are permanent; revise the Colborne Creek fish species from Coho salmon to Chum salmon; and, confirm the in-water timing restrictions.

Your comments and suggestions regarding the Terrestrial Ecosystems Existing Conditions report have also been noted. Similarly, the project team will incorporate these changes into the Terrestrial Ecosystems Impact Assessment Report, which will be completed once a preferred plan is selected for the project. With respect to your comments regarding targeted species surveys, our team will provide recommendations for additional investigations in the Impact Assessment Report; however, as noted during the November 2019 conference call, these investigations are typically completed during the Detail Design stage, once refinements are made to the recommended plan. We will also include information and delineation of significant woodlands in the assessment report.

It is understood that there was a discussion regarding deer wintering areas during the November 2019 conference call. It would be appreciated if the information and mapping related to these areas could be provided to inform the Impact Assessment Report for this project.

As part of our evaluation of design alternatives, the project team will seek to select alternatives that avoid or minimize impacts to unevaluated wetlands, where possible. These features will be included in the natural environment evaluation criteria as part of the evaluation of alternatives.

Reference: Preliminary Design and Class Environmental Assessment
Highway 401 Planning Study from Cobourg to Colborne, GWP 4060-11-00
Response to Comments Received on Natural Environment Existing Conditions Reports

Once the project team selects the preferred plan and confirms property impacts, we will contact you if any impacts are anticipated to the MNRF-managed properties within the study area.

With respect to your comments related to the Growth Plan (2019- A Place to Grow: Growth Plan for the Greater Golden Horseshoe), please note that this project is being completed under the MTO Class Environmental Assessment (EA) for *Provincial Transportation Facilities*, which is an approved process under the *Environmental Assessment Act*. MTO's Class EA document defines the groups of undertakings and associated EA processes which MTO must follow. The MTO Environmental Reference for Highway Design, which was developed in consultation with provincial and federal agencies, provides the standards and requirements for environmental investigations completed as part of the MTO Class EA process. As such, key hydrologic features are identified as part of the Class EA process, and impacts to these areas avoided or mitigated, to the extent possible.

The project team has noted your recommendations and information regarding potential eco-passages within the study area. This information will be considered, and incorporated into the design of the preferred plan, where possible. The project team will contact you and the MECP once a preferred plan has been selected to discuss potential opportunities for eco-passages within the study area.

Thank you again for taking the time to provide comments on behalf of the MNRF. Should you have any additional comments, questions and/or concerns, please do not hesitate to contact the undersigned.

Regards,

Stantec Consulting Ltd.



Diana Addley
Senior Environmental Planner
Phone: (905) 415-6401
Email: Diana.Addley@stantec.com

c. M. Waseem, E. Pipe – Ministry of Transportation
G. Cooke, T. Belliveau – Stantec Consulting Ltd.

From: [Addley, Diana](#)
To: [Robinson, Jennifer](#)
Subject: FW: Highway 401 Planning Study from Cobourg to Colborne-MECP Comments
Date: Friday, February 7, 2020 2:15:20 PM

Hi Jenn,

Could you please file this comment and update the TRACER document to reflect the comments below?

We can chat about the TRACER when you are free.

Thank you,

Diana Addley

Senior Environmental Planner

Direct: 905 415-6401

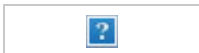
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From: Pipe, Erin (MTO) <Erin.Pipe@ontario.ca>
Sent: Friday, February 7, 2020 8:10 AM
To: Addley, Diana <Diana.Addley@stantec.com>
Cc: Cooke, Gregg <gregg.cooke@stantec.com>; Belliveau, Tim <tim.belliveau@stantec.com>; Waseem, Muhammad (MTO) <Muhammad.Waseem@ontario.ca>
Subject: FW: Highway 401 Planning Study from Cobourg to Colborne-MECP Comments

Hi Diana;

Please find below comments from Monique Charette of MECP's SAR Branch. Monique was provided the fisheries and terrestrial existing conditions reports prior to the teleconference Nevena organized which also included MNRF (Catherine Warren and Colin Higgins).

Erin

From: Charette, Monique (MECP) <monique.charette@ontario.ca>
Sent: February-06-20 4:28 PM
To: Pipe, Erin (MTO) <Erin.Pipe@ontario.ca>
Subject: Highway 401 Planning Study from Cobourg to Colborne-MECP Comments

Good afternoon Erin,

My apologies for not responding sooner. I have reviewed the Terrestrial Ecosystems Existing Conditions Report, Fish and Fish Habitat Existing Conditions Report, the mainline and Nagle exhibits and wildlife collision information. I've provided comments on only some of the species at risk listed in the reports however all species at risk and/or species at risk habitat should be considered in the detailed design stage.

Blanding's turtle

We recommend that targeted surveys for Blanding's Turtles be conducted since suitable wetland features are present within the Study Area. Blanding's Turtles also use terrestrial habitat for nesting, thermoregulation and movement. Potential nesting habitat which could include meadows, rocky outcrops, agricultural fields and trails should be considered when evaluating potential impacts on the species.

Blanding's Turtles are also known to travel long distances moving through different habitats especially in spring and fall. Surveys should not be limited to determining whether turtles are using aquatic features or whether there is nesting potential within the Study Area. Surveys should also consider turtle movement as they could be travelling through the Study Area if suitable habitat is found on both sides of the highway. There are several figures in Appendix A that show the existing highway crossing multiple watercourses, some of which are connected to waterbodies. These areas could be potential movement corridors.

In addition to conducting surveys, we recommend that habitat mapping be prepared to show where Category 1, 2 and 3 may be present. The survey results and maps will help inform potential mitigation measures and/or potential overall benefit projects if deemed required. Is there a possibility of adapting existing culverts or new ones to be suitable for Blanding's Turtle passage?

Eastern Whip-poor-will

Although the disturbance from the 401 may prevent the use of the ROW by Eastern Whip-poor-will (EWPW), they may be found in suitable habitat adjacent to the ROW and possibly outside of the Study Area which only includes a 120m area. Activities taking place in the ROW may have an indirect impact on potential adjacent territories. The EWPW has a General Habitat Description under the ESA which includes suitable habitat up to 500m of the nest or centre of approximated defended territory. In Ontario, territory range is thought to be approximately 9Ha. We recommend that a broader area be considered when evaluating potential impacts on this species.

Bobolink and Eastern Meadowlark

Although densities may be lower closer to the 401, if the habitat is suitable and surveys indicate Bobolink and/or Eastern Meadowlark are present, the ESA applies. Birds may generally avoid the ROW as a result of the disturbance associated with the highway, however they may still be in suitable habitat adjacent to the ROW and could be impacted by activities taking place in the ROW. An example of this would be the interchange at Hwy. 401/38 in Kingston where 3 Eastern Meadowlark were observed breeding in close proximity to the highway. Mitigation measures may be required to ensure potential impacts are minimized for these species.

Eastern Small-footed Myotis

The Eastern Small-footed Myotis has been found roosting in a variety of different habitats, both anthropogenic (buildings, bridges) and natural (trees). Although they mainly rely on rock roosts, we recommend that anthropogenic features also be considered when conducting surveys. We also believe that if present, the Eastern Small-footed Myotis could potentially use the rocks surrounding some of the existing culverts (eg. unnamed tributaries 0A and 0B). We recommend that these areas also be considered in future surveys.

Little Brown Myotis, Northern Myotis and Tri-coloured Bat

Although habitat was only found irregularly at the periphery of the ROW and not within the ROW, potential impacts should still be considered especially if tree clearing is to occur in close proximity to suitable habitat. Also, bats often move from one roost site to another within an area. We recommend that potential networks of roosts be considered when conducting surveys.

These bats forage along waterways and forest edges. There are multiple figures in Appendix A that show the highway crossing watercourses that flow through mixed forests, coniferous forests, deciduous forests and coniferous swamps. We recommend that these areas be evaluated as potential movement corridors for bats.

Overall Comment

Surveys are recommended for species that have the potential to be present based on the availability of suitable habitat. Confirming the presence of species at risk and/or their habitat will help inform mitigation measures and potential overall benefits that may be required in the future. Please don't hesitate to contact me if you would like to discuss the type of surveys that may be required or if you have any questions related to my comments.

Sincerely,

Monique Charette

Management Biologist
Ministry of the Environment, Conservation and Parks
Permissions and Compliance Section
Species At Risk Branch
51 Heakes Lane
Kingston ON, K7M 9B1
(613) 583-3162



Stantec Consulting Ltd.
200-835 Paramount Drive, Stoney Creek ON L8J 0B4

April 9, 2020
File: 165001132

Attention: Monique Charette, Management Biologist
Ministry of the Environment, Conservation and Parks
Permissions and Compliance Section
Species At Risk Branch
51 Heakes Lane
Kingston ON, K7M 9B1
Email: monique.charette@ontario.ca

Dear Ms. Charette,

**Reference: Response to MECP Comments, Draft Terrestrial Ecosystems Existing Conditions Report
Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00)
Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)**

Thank you for taking the time to review and provide comments on behalf of the Ministry of Environment, Conservation and Parks (MECP) in relation to the Terrestrial Ecosystems Existing Conditions (TEEC) report prepared by Stantec and dated November 5, 2018. This letter provides Stantec's response to the comments received via email by Ms. Erin Pipe of the Ontario Ministry of Transportation, (MTO) from the MECP on February 7, 2020, in relation to the TEEC report and associated terrestrial Species at Risk (SAR) considerations in relation to the above-referenced projects.

As part of your response, specific recommendations were noted in relation to eight of the fourteen SAR listed in the TEEC report, including Blanding's Turtle, Eastern Whip-poor-will, Bobolink, Eastern Meadowlark, Little Brown Myotis, Northern Myotis, Tri-coloured Bat and Eastern Small-footed Myotis. It is understood that all SAR and/or SAR habitat should be considered during the detailed design stage of these projects, including the other species listed within the TEEC report (i.e., Chimney Swift, Least Bittern, Bank Swallow, Barn Swallow and Louisiana Waterthrush).

A summary of habitats for the eight SAR described in the TEEC report is provided in Table 1 (attached), as well as the MECP's associated comments and/or recommendations. As noted in the TEEC report, an Impact Assessment report will be prepared once the Preliminary Design has been completed, at which time site-specific mitigation recommendations will be identified to reduce the likelihood of negative impacts to SAR within the Study Area, including but not limited to conducting targeted surveys for SAR during Detail Design.

In accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000), the Class EA process consists of four main stages: Planning, Preliminary Design; Detail Design; and, Construction. As noted above, this Study consists of the Planning and Preliminary Design stages, and as such focuses on 'roughing out' a design. As noted in Section 2 of the MTO's Environmental Guide for Highway Design (2013), an overall appreciation of environmental constraints can be determined during Preliminary Design based on a collection of background information, until it is supplemented by field investigations that may be completed once the design is sufficiently advanced and a better understanding

Reference: Response to MECP Comments, Draft Terrestrial Ecosystems Existing Conditions Report Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00) Highway 401 Nagle Road Interchange Study (GWP 4059-17-00)

of impacts is established. The environmental information gathered during Detail Design is intended to fill in information gaps, update information, and enhance the information level of detail acquired during the previous stages.

Based on the February 2020 response, it is understood that MECP is recommending targeted surveys for SAR where suitable habitat is present in the Study Area at the Preliminary Design stage in order to assess potential impacts and inform the recommended mitigation measures. However, please note that a conservative approach is typically undertaken during the Planning and Preliminary Design stage, which includes the evaluation of alternatives. As such, suitable habitat for SAR is identified based on Ecological Land Classification surveys and wildlife habitat assessments conducted for the Study Area, and a species' presence is assumed. Once a Recommended Plan has been identified, site-specific avoidance and mitigation measures are recommended for each SAR or SAR habitat. Consideration is given to species such as Blanding's Turtle and Eastern Whip-poor-will, whose regulated or general habitat extends beyond the 120 m Study Area boundary.

Thank you again for taking the time to review the TEEC and provide comments on behalf of the MECP. Stantec will provide the Impact Assessment report to MECP upon its completion and welcomes MECP's comments on the proposed avoidance and mitigation measures, including recommendations for targeted surveys for SAR during Detail Design. As part of this project, MTO intends to avoid or reduce potential impacts of the project activities on SAR, to the extent possible.

Should you have any additional questions, comments and/or concerns, please do not hesitate to contact the undersigned

Regards,

Stantec Consulting Ltd.



Diana Addley
Senior Environmental Planner
Direct: 905 415-6401
Email: Diana.Addley@stantec.com

Attach.: Table 1 – SAR Habitat Suitability

- c. Erin Pipe, MTO
- Muhammad Waseem, MTO
- Gregg Cooke, Stantec
- Debra Giebrecht, Stantec
- Melissa Cameron, Stantec

Table 1 – SAR Habitat Suitability

Species	Habitat Suitability in Study Area (as described in the TEEC Report)	MECP Comment / Recommendation
Blanding's Turtle	Suitable wetland habitat is present in proximity to the ROW.	Targeted surveys to confirm habitat use in wetlands and candidate nesting habitat. Conduct mapping of Category 1, 2 and 3 habitats.
Eastern Whip-poor-will	Suitable open woodland habitat is present in the Study Area; however, disturbance from Highway 401 may limit use.	Consider potential impacts outside the Study Area within 500 m of a nest or defended territory.
Bobolink and Eastern Meadowlark	Grassland features within the Study Area may provide breeding habitat for; however, nesting is unlikely to occur in the ROW due to disturbance from Highway 401.	These species may nest in proximity to Highway 401 where suitable habitat is present. Mitigation measures may be required to minimize impacts.
Little Brown Myotis, Northern Myotis and Tri-coloured Bat	Suitable roost occur irregularly at the periphery of the ROW.	Surveys to confirm roosts and movement by bats among roosts, and evaluation of movement corridors within the Study Area.
Eastern Small-footed Myotis	Suitable habitat is not present in the Study Area.	Rocks around some existing culverts may provide suitable roosting habitat. Targeted surveys are recommended.

Appendix C

Nagle Road - Recommended Plan





NAGLE ROAD AND HIGHWAY 401
 Interchange Planning Study
 Preliminary Design & Class
 Environmental Assessment
 GWP 4059-17-00

SCALE 1:4500

LEGEND

- NEW ROADWAY
- NEW BIKE LANE
- NEW SIDEWALK
- FUTURE ROADWAY
- POSSIBLE ROAD CONNECTION BY THE TOWN OF COBOURG

- EXISTING MTO RIGHT-OF-WAY
- PROPERTY REQUIRED - Phase 1
- PROPERTY REQUIRED - Phase 2
- PROPERTY REQUIRED - Phase 3
- X PROPERTY ACQUISITION - Phase 2
- ▨ Cobourg East Community Secondary Plan designates this area as "Business Park"

Recommended Plan
 Nagle Road Interchange
 Town of Cobourg
 Township of Hamilton

Figure
1